

2026

Generic call for proposals

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STEP 1

CLOSING DATE FOR THE SUBMISSION
OF PRE-PROPOSALS (PRC, PRME, JCJC)
AND REGISTRATION (PRCE and PRCI)

October 14th, 2025 at 5:00 PM (Paris time)

STEP 2

CLOSING DATE FOR THE SUBMISSION OF FULL PROPOSALS

The closing date to submit full proposals is set for the end of March 2026. The exact date and time will be specified if you are invited to submit a full proposal (February 2026).

In case of any difference of interpretation, the French version of the present document shall prevail.

It is important to carefully read this document in full, as well as the 2026 AAPG Guide (which will be available on the website of the ANR in September 2025) and the regulations on the conditions of allocation of ANR funding, before submitting a (pre)-proposal for a research project ([ANR: Financial regulations](#)).

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For any questions when preparing your project submission:

- for **scientific question** about your project, its eligibility with regard to the call criteria or its submission on IRIS: aapg.science@anr.fr
- for **administrative and financial question** about your project: aapg.adfi@anr.fr

A. Context and objectives of the 2026 Generic Call for Proposals (2026 AAPG)

The 2026 Generic Call for Proposals represents the "Research and Innovation" component of the 2026 Work Programme of the ANR. It is open to all scientific communities and all public or private stakeholders involved in French research, including companies (small and medium-sized companies, and large companies), associations or foundations. It should enable researchers from different scientific fields to fund their research projects on a large number of themes, whether finalized or not.

The AAPG applies to all types of research - fundamental and industrial research, and experimental development -. All types of proposals are possible: proposals with unprecedented objectives or concepts, breakthrough or exploratory proposals, proposals aiming to remove scientific obstacles known to the community, proposals exploiting data generated by research infrastructures, proposals resulting from previous proposals and intended to consider new objectives.

A project submitted to the AAPG can have a duration of 24, 30, 36, 42, 48, 54 or 60 months.

The "*Research and Innovation*" component of the ANR's 2026 Work Programme, covered by the 2026 AAPG, has been structured into **57 research themes**:

- **38 research themes** are introduced in 7 scientific fields:
 - Environmental Sciences (4 themes)
 - Materials and Engineering Sciences (7 themes)
 - Life sciences (11 themes)
 - Humanities and Social sciences (7 themes)
 - Digital sciences (6 themes)
 - Mathematics and its interactions (1 theme)
 - Subatomic Physics, Universe and Earth Sciences (2 themes)
- **19 research themes** corresponding to cross-cutting issues integrating the challenges of several scientific fields, divided into 7 cross-cutting areas:
 - Sustainability Science (1 eponymous theme)
 - Digital transformation (3 themes)
 - One Health (3 themes)
 - Ecological and environmental transition (3 themes)
 - Energy transformation (2 themes)
 - Technological transitions (4 themes)
 - Transformations of socio-technical systems (3 themes)

Each research theme corresponds to a scientific evaluation panel (CES) of the same name.

In step 1, when submitting a pre-proposal (funding instruments PRC, JCJC, PRME) or when registering a project (funding instruments PRCE and PRCI), scientific coordinators must choose the scientific theme and consequently the scientific evaluation panel that is most in line with the scientific objectives of their projects. These themes are detailed by major scientific field or cross-cutting area in [§Erreur ! Source du renvoi introuvable.](#)

Particular attention will be paid to the entire research continuum, in terms of "disciplinarity" (mono-, multi-, inter- and transdisciplinarity), especially within the cross-cutting research

themes covered by several disciplinary fields.

The 2026 Work Programme also includes strategic priorities set by the French Government, some priorities renewed since the 2025 edition of the call, some revised or new: Artificial Intelligence; SHS at interfaces; quantum technologies; mathematics; neurodevelopmental disorders; scientific exploitation of data generated by IR, IR* and OSI; therapeutic proof of concept in rare diseases; mental health. Each priority is linked to one or more scientific themes (cf. section dedicated to [Strategic priorities](#)).

B. Submission, evaluation and funding of projects under the 2026 AAPG

The Generic Call for Proposals is open to all tenured researchers¹, belonging to a public or private research organisation.²

B.1. Funding instruments

The 2026 AAPG uses a set of instruments to fund:

- either individual research projects coordinated by young researchers (**JCJC**),
- or single-team projects (**PRME**),
- or collaborative research projects in a national context (**PRC**), in a national context and including a company (**PRCE**) or in an international context (**PRCI**).

The five funding instruments proposed as part of the generic call for proposals each have their own specificities in terms of submission, eligibility, and evaluation procedures. The characteristics and expectations of these different funding instruments are described below.

In step 1, when submitting a pre-proposal (PRC, JCJC, PRME instruments) or when registering a project (PRCE and PRCI instruments), the scientific coordinators must choose the funding instrument that best suited to the objectives of their project and to their partnership. They define the role of each one in the project: scientific coordinator, partner's scientific manager³, or participant. The scientific coordinator is the scientific manager for the coordinating partner. Please note that two coordinators must be designated in a PRCI project, one to coordinate the French part of the project and one to coordinate the foreign part of the project

¹ Insofar as they are currently under contract (or will be) with the managing authority for at least the duration of the project. The contract may have not started before the agreement. The salary of the coordinator and scientific project managers of each partner are not eligible for ANR funding.

² Whatever the funding instrument, the project must include at least one organisation participating in the public research service, i.e. at least one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

³ Please note that the same person cannot be the scientific manager of two different partners in the same project.

The identity of the scientific coordinator⁴, the funding instrument and the research theme defined when the pre-proposal for a PRC, PRME or JCJC is submitted, or when a PRCE or PRCI is registered (with the ANR or with a foreign agency acting as the “Lead Agency”) cannot be changed during the evaluation and selection process. Consequently, before any submission / registration of a project to the AAPG call, scientific coordinators are invited to carefully read the 2026 AAPG guide⁵, and the scientific content of the themes provided in [§Erreur ! Source du renvoi introuvable.](#) .

The outlines of the scientific themes may have evolved since the last edition of the call, it is therefore necessary to ensure the suitability of your project to the chosen scientific theme, including in the case of the re-submission of a project.

Instrument dedicated to young researchers (JCJC)

Objectives

The JCJC funding instrument aims to prepare the new generation of talented young researchers by encouraging their empowerment and by encouraging them to tackle scientific or technological obstacles using original approaches.

Therefore, the instrument aims to help young researchers acquire scientific autonomy, develop their own research theme, unite their own team around this theme, acquire project-based culture and quickly demonstrate their capacity for innovation. It is also a springboard for young researchers who, thanks to initial support from the ANR, will be more willing to consider submitting a proposal in response to the calls launched by the European Research Council (ERC).

This instrument, which focuses on the individual⁶, provides funding solely for the young researcher’s team. This instrument is open only to researchers from research organisations participating in the public research service⁷. It is not open to non-tenured staff⁸ and cannot be used to fund the coordinator’s salary.

Specific eligibility criteria

To be classified as “Young researcher”, applicants must have defended their doctoral thesis (or having obtained a degree or qualification equal to the international PhD standard) less than 10 years ago, i.e. after 01 January 2015.

⁴ This rule applies except in the event of “force majeure”. A specific authorisation request must be sent to the ANR and explain the “force majeure” requiring a change of project coordinator.

⁵ Document available in September 2025 on the Webpage dedicated to 2026 AAPG. This AAPG Guide is the reference for researchers wishing to submit a proposal, for peer reviewers and panel members, in terms of submission, eligibility, evaluation and selection of projects.

⁶ Changing coordinator is not authorized during the implementation of a JCJC project.

⁷ i.e. one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

⁸ In the sense of “holders” of a current or future contract with the managing authority for at least the duration of the project. The contract may not have started before contracting the project. It is therefore necessary to inform your future managing supervisor before submitting any project to the JCJC instrument.

In addition, researchers are eligible to the “young researchers” instrument only for 5 years after taking up a position⁹ in an organisation participating in the public research service, i.e. after 01 January 2020¹⁰.

Funding under the “Young researcher (JCJC)” instrument can only be allocated once throughout a career; it is not possible to combine JCJC funding with a similar type of funding.

A coordinator of a JCJC project currently being funded by the ANR cannot be the coordinator of another PRC, PRME, JCJC project submitted to the 2026 AAPG call or a PRCE / PRCI project registered to the 2026 AAPG call for the entire duration of their JCJC project¹¹.

Please note that a researcher eligible for the JCJC instrument (respecting the deadline for the doctoral thesis defence and the date of first employment) is not required to submit to this funding instrument if her/his project does not correspond to the objectives of the JCJC instrument, by its size or the partnership established (cf. §B.6, sub-criterion dedicated to JCJC instrument « *Project contribution to the coordinator’s empowerment and team development* »).

Single team research project (PRME)

Objectives

The “Single-team research project” (PRME) funding instrument is intended to fund a single team¹² from research organisations participating in the public research service¹³. Various types of teams are accepted, provided that they are approved by the laboratory director and can prove their sustainability over the duration of the project. To this end, upon submission of its pre-proposal, the coordinator must provide a certificate signed by the laboratory director (according to the model to come on the web page dedicated to 2026 AAPG).

A PRME project corresponds to research aimed at scientific objectives presenting remarkable ambition. Strong involvement from the coordinator is therefore expected, at least 40% ETPR (ETPR for full time research employment)¹⁴. The team must also justify at least 1.5 ETPR involvement for all participants identified in the PRME project: lecturer (EC, PR, MCF), researchers (DR or CR), full-time research engineer (IR) and full-time project engineer (IE), including ETPR of the coordinator¹⁵.

⁹ The notion of first employment refers to taking a post as a research professor or full-time researcher within an organisation participating in the public research service, in France or abroad. Excluding post-doctoral contracts, engineers, teachers without research responsibilities (i.e. PRAG). Possible probationary period or internship considered.

¹⁰ Exemptions may be granted for these 2 eligibility criteria. The following events may be considered and are cumulative: maternity/paternity leave, parental leave, leave for parental presence, long-term sick leave (more than 90 days), national service, integrated dual degrees. The limit is extended by a period equal to the duration of the event, by 4 years for the integrated dual degree. In addition, for women, the limit is extended by one year per dependent child. Proof of exemption must be provided online when submitting the pre-proposal in step 1.

¹¹ Submission as scientific coordinator is authorised in the final year of a JCJC project, provided that the ongoing project is completed by the date on which the new project is agreed, i.e. no later than 31/12/2026.

¹² Only the team or laboratory of the scientific coordinator is funded under the single-team research project.

¹³ i.e. one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

¹⁴ Changing coordinator is not authorized during the implementation of a PRME project.

¹⁵ Emeritus researchers, even if they can participate in the PRME project, are not included in the required ETPR. For lecturers (EC, PR, MCF), the calculation is based on 100% of their research time.

Specific eligibility criteria

A scientific coordinator of a PRME project currently funded by the ANR cannot act as coordinator of another PRME project over the duration of his/her PRME project¹⁶.

A PRME project must correspond to one of the themes in the ANR's field of intervention which does not overlap with those of other funding agencies, especially INCa and ANRS|MIE. The verification of the eligibility relating to themes supported by these organisations - in particular cancer, AIDS, viral hepatitis and tuberculosis - is jointly conducted by the ANR and the INCa or the ANRS|MIE.

Collaborative research project – Enterprise (PRCE)

Objectives

The “Collaborative Research Project - Enterprises” (PRCE) funding instrument is dedicated to collaborations established between at least one research organisation participating in the public research service¹⁷ **and** at least one company conducting R&D work in France (large, small and medium-sized companies). The project may be coordinated by the “research organisation” partner or the “company” partner.

This collaboration, whether prior to the submission of a PRCE project or newly materialized by the submission of this PRCE project, aims to jointly achieve research results beneficial to both parties, (1) by allowing research organisations to address new research questions, or to approach them differently, and (2) by allowing companies conducting R&D work to access higher level “academic” research in order to improve their capacity for innovation in different ways. The PRCE collaboration must therefore have a purpose of innovation in a socio-economical context, explained in the project (cf. [§B.6](#) sub-criterion “*Action to transfer technology and innovation to the socio-economic world; promotion of scientific, technical and industrial culture*”)

Provided that at least one “establishment participating in the public research service” partner and at least one “commercial company” partner are involved (see specific eligibility criteria below), the PRCE partnership may involve other categories of partner: association, foundation, collectivity, hospital establishment, etc.

Specific submission modality

New
2026

In step 1, PRCE projects are only concerned by a registration of intention to deposit. No scientific document is therefore expected at this step. The coordinator completes on the submission and registration site the scientific characterization form of her / his project and the administrative form. This registration is subject to an eligibility check for the criteria applicable in step 1 (in particular “*limited coordination*” and “*limited participation*”, cf. [§ Eligibility](#)). Subject to eligibility in step 1, PRCE projects are automatically invited to step 2 of the call, without evaluation of their value by the scientific evaluation panels.

¹⁶ Submission as coordinator is permitted in the final year of a PRME project provided that the current project has a scientific end date prior to 31/12/2026.

¹⁷ i.e. at least one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

Specific eligibility criteria

New
2026

One PRCE project must involve at least one “commercial company” partner¹⁸ (ETI, PME, GE) carrying out R&D work in France to meet the expectations of “*openness to the socio-economic world*”. As such, consular higher education schools (EESC), private higher education establishments of general interest (EESPIG), industrial and commercial establishments (EPIC), ORDC valorization subsidiaries, SATTs, technical centers, private health establishments of collective interest (ESPIC), GIEs, associations or foundations, do not meet the expectations of a partner “*commercial company carrying out R&D in France*” in a PRCE project, even if they can be categorized as “Enterprise” in the European sense.

Any project invited in step 2 of the AAPG call including a “Company” partner and/or a foreign partner outside the European Union is subject to an opinion from the HFDS with regard to the PPST (cf. [SD.6](#)). Consequently, PRCE projects invited in step 2 are systematically submitted to the HFDS for opinion, based on the characterization data recorded in step 1. A negative opinion from the HFDS does not allow the project to be funded at the end of the call evaluation process. Consequently, coordinators of a PRCE project are invited to contact the FSD of their organisation in order to find out in advance about the eligibility of their project with regard to the PPST.

Collaborative research project– International (PRCI)

Objectives

The ANR is working in collaboration with research funding agencies from other countries and provides agreements facilitating collaborations between teams from these various countries to its supervisory ministry. These bilateral agreements, which may cover specific themes or be open to all research themes funded by the ANR, focus on priority objectives or geographical areas for limited periods of time, except for the special case of the Franco-German collaboration (Elysée Treaty, revised in 2019 in Aix-La-Chapelle).

Depending on the case, these agreements aim to:

- accelerate and develop collaborations between French researchers and the best international teams on key themes ;
- promote partnerships with emerging countries based on themes of mutual interest and shared benefits,
- enable the development of transnational teams of excellence to conduct and share research worldwide

The “International Collaborative Research Projects” (PRCI) funding instrument is devoted to these bilateral collaborations, which are established between at least one French research organisation participating in the public research service¹⁹ **and** at least one foreign partner eligible for funding from a foreign funding agency, which has signed a bilateral agreement with the ANR.

A strong synergy is expected between the two partners submitting their proposal and must be

¹⁸ The definition of a PRCE project is therefore not based on the European “Research Organization”/“Company” dichotomy of the financial regulations, but on the “Commercial Company” partner category.

¹⁹ i.e. at least one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

reflected in the complementarity of the scientific contributions of each country and clear identification of a scientific coordinators for each country, one on the French side and one on the foreign side.

Specific submission and evaluation processes

Collaborations open to the “Collaborative Research Project – International” (PRCI) instrument can take 3 submission and evaluation modalities:

- “ANR *Lead Agency*” modality: ANR is responsible for the main submission and evaluation of the projects. The concerned collaborations require the registration of the project to the ANR in step 1 of the AAPG call, then the submission of a detailed proposal to the ANR in step 2. The foreign partner may have to submit a copy of the project to the foreign funding agency.
- “Foreign *Lead Agency*” modality: the foreign funding agency is responsible of the main submission and evaluation of the projects. The concerned collaborations do not require registration of the project in step 1 of the AAPG call. However, a copy of the project submitted to the foreign agency is required, within a specific schedule
- “Non-*Lead Agency*” modality: the projects are submitted to the two funding agencies, according to the schedule and specific terms of each agency. The evaluation is carried out by the two funding agencies according to their own evaluation process and schedule. The concerned collaborations require the registration of the project to the ANR in step 1 of the AAPG call, then the submission of a detailed proposal to the ANR in step 2.

Whatever the PRCI collaboration targeted, the selection for funding is made by joint agreement of the two funding agencies, and each of the agencies funds the teams in its country, according to its own funding procedures.

The [appendix 2](#) gives a provisional list of the collaborations open in the 2026 AAPG, the research issues and themes concerned, and the collaboration modality. In case of a PRCI registration or submission, the coordinator should check the actual opening of the collaboration, the confirmed themes and the terms of the collaboration upon publication of the dedicated PRCI appendices (in September 2025 on the 2026 AAPG webpage).

Specific eligibility criteria

The partnership must include at least one research organisation participating in the public research service²⁰ for the French side of the project **and** at least one foreign partner covered by the bilateral agreement requesting funding from the foreign funding agency. Two scientific coordinators are clearly identified, one for the French side, one for the country concerned by the bilateral agreement.

The copy of the project must be submitted to the ANR or to the foreign agency, according to the “ANR *Lead agency*” or “Foreign *Lead agency*” modality of the PRCI collaboration, within the schedule and according to the procedure given by the funding agency. **It is therefore necessary to identify the modality of the PRCI collaboration - “ANR *lead agency*” modality, “Foreign *lead agency*” or “Non-*Lead agency* modality” - to anticipate the steps to be taken with the ANR and the foreign funding agency.**

²⁰ i.e. at least one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies

In addition to the eligibility criteria applicable to any AAPG funding instrument, there are specific criteria for each PRCI collaboration applied by the ANR and specific eligibility criteria applied by foreign funding agencies. A PRCI project must therefore meet the eligibility criteria of the ANR and the eligibility criteria of the foreign funding agency ²¹.

Collaborative research project (PRC)

Objectives

The “Collaborative Research Project” (PRC) instrument is the main funding instrument of the AAPG call. It includes all types of multi-partner research projects other than those covered by PRCI and PRCE instruments. The partners involved pool their skills and resources to jointly carry out work with added scientific value, either by making the work possible or by enabling the development of results of a higher ambition or quality.

The collaboration involves at least two partners²², including at least one research organisation participating in the public research service²³. Provided that at least one partner participating in the public research service is involved, the partnership of a PRC project may involve different partner establishments (association, foundation, collectivity, hospital establishment, etc.) and/or one or more foreign teams from countries not eligible for the PRCI instrument (in the latter case, the foreign teams will be funded by their own funds).

Specific eligibility criterion

A PRC project must correspond to one of the themes in the ANR's field of intervention which does not overlap with those of other funding agencies, especially INCa and ANRS|MIE. The verification of the eligibility relating to themes supported by these organisations - in particular cancer, AIDS, viral hepatitis and tuberculosis - is jointly conducted by the ANR and the INCa or the ANRS|MIE.

As part of the 2026 Work Programme and its enhanced action towards European issues, the Young Researcher instrument (JCJC) and Collaborative Research Project – International instrument (PRCI) will be the subject of funding opportunities in addition to projects selected in previous editions of the call, aimed at supporting research teams towards funding from the European Commission. For more information, see the text of the 2026 Work Programme and the ANR Meetings organized in September 2025.

B.2. Eligibility

The ANR examines the eligibility of the projects **throughout the submission, evaluation, selection and funding process** based on the rules for the 2026 AAPG (see [§B.1 description of the funding instruments](#), in the 2026 AAPG Guide and in the specific appendices for PRCI, and in [the funding regulations of ANR](#) (in French only).

²¹ Specific annexes for each PRCI collaboration will be available on the ANR webpage dedicated to 2026 AAPG. These will describe: eligible themes, specific submission and evaluation procedures, and any additional eligibility criteria. They must therefore be consulted before any registration or submission to the ANR and/or to the foreign agency.

²² A PRC project can involve two teams from the same laboratory, with each being considered as a partner in the collaborative project. In this case, it is not a PRME.

²³ i.e. at least one public law partner for research and dissemination of knowledge (such as EPST, university, EPIC research, etc.) established in France or at least one private law partner for research and dissemination of knowledge having an establishment or a branch in France and not being a commercial company. Under this call, Consular Higher Education Schools (EESC) are not considered as commercial companies.

Under the PRCI funding instrument, eligibility is also verified by the partner foreign funding agency according to its own eligibility criteria: a PRCI project must therefore meet the eligibility criteria of the 2026 AAPG and the eligibility criteria of the partner funding agency.

Applicants are therefore invited to read these documents and the eligibility rules carefully before submitting or registering a project to 2026 AAPG call.

B.3. Eligibility criteria relating to applicants under the 2026 AAPG call

Limited coordination

A coordinator of a PRC, PRCE, PRCI, PRME or JCJC project funded in the 2025 edition of the AAPG call cannot register or submit as a coordinator a PRC, PRCE, PRCI, PRME or JCJC project in the 2026 edition of the AAPG call (including PRCI in “Foreign Lead Agency” modality).

A coordinator of a PRME project currently being funded cannot be the coordinator of another PRME project submitted to the 2026 AAPG call during the duration of her/his PRME project.²⁴

A coordinator of a JCJC project currently being funded cannot be the coordinator of a JCJC, PRC, PRCE, PRME or PRCI project registered or submitted to the 2026 AAPG during the duration of her/his JCJC project²⁵.

A scientific coordinator of a JCJC project selected for funding during a previous edition and now closed cannot act as coordinator for a new JCJC project submitted under the 2026 AAPG call. Coordination of a JCJC project is now limited to once throughout a career.

Limited participation

An applicant may register / submit only one PRC, PRCE, PRME, JCJC or PRCI project (including PRCI in the “Foreign Lead Agency” modality) as a scientific coordinator²⁶ in the 2026 AAPG call and the 2026 FRAL call. He/She may not be involved as a scientific coordinator or partner’s scientific manager in more than 3 projects submitted to the 2026 AAPG call (whatever the funding instrument, including PRCI in the “Foreign Lead Agency” modality²⁷) and the 2026 FRAL call. Consequently, an applicant can be at most: once coordinator and twice partner’s scientific manager OR three times partner’s scientific manager, at 2026 AAPG call and 2026 FRAL call combined.

The rules relating to applicants given above are cumulative.

They apply from step 1 of the 2026 AAPG, including in the context of the registration of PRCI and PRCE projects, and the submission of a PRCI project to a foreign agency under the “Foreign Lead Agency” modality, and to both steps of the 2026 AAPG combined, regardless of the outcome

²⁴ Submission as scientific coordinator is authorised in the final year of a PRME project, provided that the ongoing project that the current PRME project has a scientific end date prior to the 31/12/2026.

²⁵ Submission as coordinator (PRC, PRCE, PRME or PRCI projects) is authorized in the last year of a JCJC project provided that the current JCJC project has a scientific end date prior to the 31/12/2026.

²⁶ The term “coordinator” is understood to mean the person responsible for the scientific implementation of the project on behalf of the coordinating partner. In the context of a PRCI project, a coordinator is systematically designated for the French part of the project and for the foreign part of the project. The term “scientific manager of the partner” is understood to mean the person responsible for the scientific implementation of the project on behalf of a partner.

²⁷ The limitation to three participations as coordinator and scientific manager therefore also applies to the registration of PRCE and PRCI in step 1, and to PRCI in “Foreign Lead Agency” modality. Consequently, a coordinator of a PRCE or PRCI project registered in step 1, or submitted to a foreign funding agency cannot be the coordinator of another PRC, PRME, JCJC project filed with 2026 AAPG, regardless of the result of the evaluation of the PRC, PRME, JCJC project at the end of step 1.

of the evaluation in step 1. The FRAL call of the 2026 Work Programme is also affected.

Failure to comply with these rules listed above will result in the ineligibility of all projects concerned. Scientific coordinators are therefore required to check with the partner's scientific managers with whom they are submitting that they are respecting these rules. The submission site cannot replace the vigilance of applicants.

In addition to these eligibility criteria for applicants, there are project-specific criteria. These are described in the 2026 AAPG Guide, which serves as a reference in terms of eligibility.

B.4. Submission process

The evaluation and selection process of the 2026 AAPG call takes place in 2 steps (cf. provisional timetable of the 2026 AAPG call in [Appendix 1](#)).

In step 1, the submission of a PRC, PRME, JCJC pre-proposal includes the online completion of a project characterization form, an administrative form, the submission of a scientific document (written according to the framework provided, max. 4 pages including the bibliography²⁸, diagrams and references) and the online completion of the CVs of the scientific coordinators and the scientific managers of partners. In the case of a PRME project, a certificate signed by the laboratory director is required (according to the upcoming model on the webpage dedicated to 2026 AAPG call).

New
2026

In step 1, PRCE projects do not require the submission of a scientific document, but only the online completion of a project characterization form, an administrative form and the online completion of the CVs of the coordinators and scientific managers of partners. This registration, subject to meeting the eligibility criteria applicable in step 1, gives rise to an automatic invitation to Stage 2, without evaluation of the value of this registration by the scientific evaluation panels.

Specific process: if they are resubmitted in step 1 of the 2026 AAPG, the projects classified in the complementary list to the 2025 AAPG but not selected for funding at the end of the process are automatically invited to step 2 of the 2026 AAPG call, without evaluation by the panels, subject to eligibility. The projects concerned must have the same scientific coordinator, same funding instrument, same title and comparable consortium (verified by the ANR before the automatic invitation to step 2) and must be complete on the submission website by the closing date and time of step 1.

For the 2026 AAPG call, PRCE projects classified in the complementary list to the 2025 AAPG benefit from the new 2026 AAPG system of registration in step 1 of the call.

In step 2, the submission of a PRC, PRCE, PRME, JCJC full proposal includes the online completion of a project characterization form, an administrative and financial form, the submission of a scientific document (written according to the framework provided, not to exceed 20 pages including the bibliography, diagrams and references) and the online completion of the CVs of the coordinators and scientific managers of partners.

Regarding the registration and submission of a PRCI project to the AAPG call, the submission procedures depend on the terms of the collaboration, see description of the instrument *Collaborative research project– International (PRCI)* and in the specific appendices of the PRCI

²⁸ Since the 2019 edition, the CVs of the coordinator and his/her partners can include preprints not yet published in peer-reviewed scientific journals. In addition, the ANR encourages applicants to cite preprints in the bibliography, particularly when referencing preliminary data.

instrument available in september 2025.

The description of the elements expected online and in the scientific document is given in the 2026 AAPG Guide.

*The submission form, including the administrative and financial part, must be completed online and the scientific documents (pre-proposal in step 1 or full proposal in step 2), the certificate expected for PRME projects and any documents proving exemption from the JCJC instrument must be submitted on the ANR submission Website, **on the closing date and time of the call.***

Any incomplete project by the closing date and time of the call is ineligible

B.5. Evaluation and selection of projects

The project selection conducted by the ANR is based on the peer-review principle. The selection process of the ANR includes the organisation of panels and mobilises peer-reviewers beyond these panels.

Scientific Evaluation Panels (CES) consist of highly qualified scientists – working in France or outside of France - from the relevant research communities. They are in charge of evaluating preproposals in step 1 and full proposals in step 2, with the help of external peer reviewers, exceptionally in step 1 and systematically in step 2.

Each evaluation panel is chaired by a chair whose mandate is one year, renewable twice²⁹. He/She has undergone ANR selection process and ethics training. He/She heads the Board of the panel - which includes one or two vice-chairs³⁰ - who helps the chair prepare for and conduct the work of the panel. A scientific project manager assists the panel board, before and during the panel meetings, in the application of the AAPG evaluation and selection process as certified ISO 9001 (certification obtained in 2018 and renewed each edition since).

External reviewers are proposed by panel members, and requested by the scientific project manager after verifying the absence of conflict of interest. External reviewers carry out written evaluations of one or more projects, without participating in panel meetings. They operate independently and confidentially, without exchange with third parties, on the basis of the elements constituting the pre-proposal or the full proposal as completed on the submission Website on the closing date and time of the call.

The ANR [Charter of Ethics and Scientific Integrity](#) applies to all people involved in the evaluation and selection of projects.

In step 1, the evaluation process (excluding PRCE and PRCI projects) consists of the panel members identifying the PRC/PRME/JCJC pre-proposals for which drafting a full proposal may be justified by their scientific excellence and ambition (decisive criterion ; see [SB.6](#) and 2026 AAPG Guide).

***Note:** The 2026 AAPG process includes a “memory effect” between two successive editions of the AAPG call. Thus, if the scientific coordinator makes the explicit request when submitting her/his project to 2026 AAPG call, and if it is actually a re-submission of a pre-proposal which has been evaluated in*

²⁹ The recruitment of the chairs is done through a call for applications, published on the ANR website, ahead of each edition of the call. The 2026 call for applications is already available online

³⁰ Depending on the size of the panel, the number of vice-chairs is between one and three

step 1 of the 2025 AAPG call, the pre-proposal and the final report of step 1 of the previous edition are sent to the panel members. This transmission to the panel members is made after the individual evaluations have been carried out by the panel members, for assessment of the evolution of the project between the two editions of the call. An additional field (max. 3000 characters) is also available to the scientific coordinator in order to explain to panel members the modifications made between the preproposal submitted to 2026 AAPG and its previous version submitted to 2025 AAPG.

The ANR checks the eligibility for “memory-effect” before making the documents available to panel members: project evaluated by a panel of the 2025 AAPG in step 1, same scientific coordinator, same funding instrument and similar scientific objectives.

All scientific coordinators of an eligible pre-proposal are notified by email of their selection or non-selection for step 2. A final evaluation report from the panel is made available to coordinators regardless of the result of the evaluation of their project in step 1. This final report corresponds to the consensus reached by the evaluation panel outcome in a plenary meeting.

In step 2, the evaluation process (including PRCE and PRCI projects in « ANR Lead Agency » modality or « Non-Lead Agency » modality) aims to select the best full proposals by evaluating the scientific excellence and ambition of the project, how it is organised and how it will be implemented, and what impacts the project may have - in accordance with international competitive project selection principles - (see [SB.6](#) and 2026 AAPG Guide). In step 2, the evaluation is made by external reviewers and panel members. Step 2 also includes a rebuttal stage to external peer reviews aimed at correcting any possible inaccuracy contained in an external review.

***Note:** The 2026 AAPG process includes a “memory effect” between two successive editions of the AAPG call. Thus, if the scientific coordinator makes the explicit request when submitting her/his project to 2026 AAPG call, and if it is actually a re-submission of a full proposal which has been evaluated in step 2 of the AAPG 2025 call, the full proposal and the final report of step 2 of the previous edition are sent to the panel members. This transmission to the panel members is made after receiving the external peer reviews and after the individual evaluations written by the panel members, for assessment of the evolution of the project between the two editions of the call. An additional field (max. 3000 characters) is also available to the scientific coordinator in order to explain to panel members the modifications made between the full proposal submitted to 2026 AAPG and its previous version submitted to 2025 AAPG.*

The ANR checks the eligibility for “memory-effect” before making the documents available to panel members: project evaluated by a panel of the 2025 AAPG in step 2, same scientific coordinator, same funding instrument and similar scientific objectives.

The scientific evaluation panel is fully responsible for ranking the full proposals. The ranking will be reached by consensus of the panel after a debate on each project reviewed. The ANR does not modify the ranked lists provided by the panels and funds the projects by scientific theme according to the budget allocated to each theme.

After the call has closed, the list of projects selected for funding and the composition of the scientific evaluation panels will be published on the ANR website (publication of the results during panel meetings in June and July). All scientific coordinators of an eligible full proposal are notified by email of their selection or non-selection for funding. A final evaluation report from the panel is made available to coordinators regardless of the result of the evaluation of their project. This final report corresponds to the consensus reached by the evaluation panel outcome

in a plenary meeting.

As part of the ISO 9001 certification of the AAPG selection and contractualization process and according to a principle of continuous improvement of this process, the ANR has implemented a principle of observation of the scientific evaluation panels by internal ANR observers. This observation of several evaluation panels of the call according to the same observation grid makes it possible to ensure compliance with the selection process as written in the reference documents of the call, and allows, if necessary, to identify points for improvement and generalize the good practices observed across all of the scientific evaluation panels.

These observers do not take part in the scientific debates of the projects and do not comment on the rankings made in plenary meetings by the panels.

B.6. Evaluation criteria

The evaluation of pre-proposals and full proposals is conducted based on the criteria used by both panel members and external peer reviewers.

The differentiation of criteria, between the two selection steps and between funding instruments, is carried out using the reading grid of the sub-criteria given below.

Step 1 (evaluation of pre-proposals)³¹

Criterion 1: Quality and scientific aim

In Step 1, the criterion 1 is decisive: an A rating from the evaluation panel is required to be invited to step 2.

- Clarity of research objectives and hypotheses
- Scientific ambition of the project and position with respect to the state-of-the-art
- Adequacy and relevance of the methods implemented
- Adequacy of the project with the scientific theme selected

Criterion 2: Organisation and implementation of the project

- Skills, expertise and involvement of the project coordinator
- *For PRC:* Quality of the consortium and complementary between the contributions
- *For PRME:* Quality and expertise of the team
- *For JCJC:* Project contribution to the empowerment and team development of the coordinator

Step 2 (evaluation of full proposals)

Criterion 1: Quality and scientific aim

In Step 2, the criterion 1 is decisive: an A rating from the evaluation panel is required to be proposed for funding

- Clarity of research objectives and hypotheses
- Scientific ambition of the project and position with respect to the state-of-the-art

³¹ PRCE and PRCI projects are not evaluated in step 1.

- Adequacy and relevance of the methods implemented
- For PRCI and PRCE: Adequacy of the project with the scientific theme selected

Criterion 2: Organisation and implementation of the project

- Skills, expertise and involvement of the project coordinator
- For PRC and PRCE: Quality of the consortium and complementary between the contributions
- For PRCI: Quality of the consortium and complementary between the contributions of each country
- For PRME: Quality and expertise of the team
- For JCJC: Project contribution to the empowerment and team development of the coordinator
- Adequacy of the resources implemented and requested with the objectives of the project

Criterion 3: Impact and benefits of the project

- Scientific impact and possible impact in economic, social and cultural fields
- For PRC, JCJC and PRME: Strategy for the dissemination and exploitation of the results; promotion of scientific, technical and industrial culture
- For PRCE: Action to transfer technology and innovation to the socio-economic world; promotion of scientific, technical and industrial culture
- For PRCI: Strategy for the dissemination and exploitation of the results; promotion of scientific, technical and industrial culture; added value of a European or international cooperation, contribution to the French scientific community

The sub-criteria related to the main criteria provide a level of detail adapted to the content and size of the scientific document.

The sub-criteria serve as a guide to help the applicant prepare her/his application and for the peer reviewer (panel member or external peer reviewer) to conduct the evaluation. The details of what is expected for each criterion or sub-criterion are specified in the 2026 AAPG Guide.

Projects being evaluated on the basis of information completed online on the closing date and time of each step, scientific coordinators must therefore ensure that the information provided online correctly meets the criteria and sub-criteria applicable to the step and the chosen funding instrument.

B.7. Project funding

Following the evaluation process, the ANR decides on whether or not to select a project based on rankings established by the panels and the budgetary guidelines and priorities approved by MESR. In July 2026, the ANR publishes the list of selected projects for funding for a potential start in October, the 1st 2026.

The procedures for the allocation of ANR funding are set out in the "*Regulation on the allocation of funding*" (<http://www.anr.fr/RF> in French). Scientific coordinators and scientific managers of the partners are invited to carefully read this document to set up their projects in compliance with its provisions, particularly with regard to budgetary aspects.

Depending on the type of consortium, the ANR will fund the selected proposals either after a unilateral funding decision or after that each partner receiving funding signs a funding

agreement. This may sometimes require the provision and assessment of additional information (particularly for companies: financial statements, certificate of registration, information on capitalistic links). If required, the ANR will contact the relevant partners to check their respective beneficiary categories via the form drafted for this purpose.

Companies facing financial difficulties are not eligible for ANR funding.

Rules relatives to double-funding or funding by other agencies, organisations, local or regional authorities, or foundations

A scientific coordinator cannot simultaneously receive funding under both the JCJC instrument and/or another similar programme such as Inserm ATIP-Avenir, Emergence CNRS, Starting Grant or Consolidator Grant from ERC³², funding of local authorities (for example, “Etoile montante”), or the Tremplin ERC call of the ANR (Cf. description of the instrument [JCJC “Young Researcher”](#)).

Public entities, agencies, associations or foundations, other than the ANR, provide project-based funding and coordinate their own calls, such as the French National Cancer Institute ([INCa](#)), French National Agency for Research on AIDS and Viral Hepatitis – Emerging Infectious Diseases ([ANRS I MIE](#)) and French Foundation for Medical Research ([FRM](#)). To ensure efficiency, projects covered by these calls for proposals are not intended to be funded by the ANR³³. Thus, the eligibility of the projects submitted to the ANR under the 2026 AAPG and falling under themes likely to be supported by these funding agencies, will be jointly verified by the ANR and these organisations, agencies, associations or foundations.

Generally speaking, projects funded by other organisations, agencies, local and regional authorities, foundations or associations under similar instruments and with identical expectations, will not be eligible for double funding. The ANR may check for double-funding (during the evaluation process, the selection or at a later date) and either conclude that the submitted project is ineligible or proceed to the cancellation (total or partial) of the funding.

As part of the 2026 work programme, simplification measures have been implemented to improve financial support. For example:

- ***Harmonization and reduction of expense categories in cooperation with other funders of project-based research.***
- ***Reduction of justification provided by institutions for the funded projects***
- ***Experimenting with a lump-sum payment per project, for the JCJC and PRME instruments.***
- ***Public/private partnership: the funding rate for SME rises from 45% to 60% for calls for projects beginning with the 2026 edition, whatever the instrument.***

These new simplification measures, which are in addition to the actions already undertaken by the agency over the past years, will be presented on the ANR website and at “ANR Meetings”.

When registering/submitting a project to the 2026 AAPG, contact your future supervisory manager in advance to ensure you receive the best possible support in setting up the administrative and financial aspects of your project.

³² For ERC projects, applicable prior to contractualisation of the JCJC project with the ANR.

³³ This rule applies only to PRC and PRME instruments

C. Specific measures

C.1. Research infrastructure and Very large research infrastructures

Projects relying on resources from research infrastructures (IR) or very large research infrastructures (OSI and IR*, previously TGIR) are invited to declare this information when they submit their pre-proposal in step 1. A procedure independent from the ANR project submission must be carried out to ensure that such resources are available if they are key to the success of the project. This can be justified as part of the submission of a full proposal (especially within the framework of the priority “*Scientific exploitation of data generated by IR, IR* and OSI*”).

For instance, requests for resources can be made to GENCI (*Big National Equipment for Intensive Computing*) to access computing and storage resources for digital simulation, massive data processing or artificial intelligence.³⁴

C.2. Competitiveness clusters

Coordinators wishing to benefit from the label of one or more competitiveness clusters must declare it from step 1, when submitting a PRC, PRME, JCJC project or registering a PRCE project.

³⁵

When applying for a label, the scientific coordinator must first have the approval of the other partners (including, if required, foreign partners) involved in the pre-proposal. The scientific coordinator is invited to contact the competitiveness clusters concerned before submitting the project and to find out about the commitments in the event of support from these clusters (in particular possible membership of the cluster, transmission of intermediate and final project reports). If a proposal labelled by a competitiveness cluster is successful, the information on the monitoring of the project will be provided to the competitiveness cluster.

C.3. French co-funding

The ANR establishes partnerships with other funding agencies. Generally, this does not involve additional funding, but a contribution to the funding requested from the ANR for the project, except when a specific request can be made to the co-funding partner. Co-financing means that the fund allocated to a project combines a financial contribution from the ANR and from the co-financing partner, which thus demonstrates its interest in the research work. A project coordinator selected may decline the co-funding of her/his project.

The scientific coordinators must express their interest online to benefit from co-funding from step 1, when submitting their pre-proposals or registering their PRCE projects.

C.4. PRIMA labelling

France is member of the international [PRIMA](#) program (*Partnership for Research and Innovation in the Mediterranean Area*, cf. 2026 Work Programme of the ANR). As part of the activities developed

³⁴ GENCI provides free computing and storage resources for digital simulation (HPC), within three French national centres (CINES, IDRIS and TGCC), for academic and industrial researchers contributing to open research. You can apply to two calls for proposals (in January and July) to receive resources allocated over a year. Applications are then reviewed by Thematic Panels, according to their scientific and technical excellence. For more information on national computing centres, procedures, you can download the information booklet for users at <http://www.edari.fr> and <http://www.genci.fr>.

³⁵ Applying for labelling is not mandatory to submit a proposal to the 2026 Generic Call for Proposals. If a labelling is requested, it must be declared online in step 1 and cannot be declared in step 2. PRCI projects are excluded from this procedure.

with the 19 countries involved in this program, projects funded by the 2026 AAPG with a link to the themes described in PRIMA [agenda de recherche et innovation stratégique](#) are likely to be included in the contributions made by France to Section 3 of PRIMA (*Participating States Initiated Activities*, PSIA). As such, the coordinators of the projects concerned will be invited to indicate their inclusion in the PRIMA program in any communication made in connection with the valorisation of their results.

D. Regulatory requirements for applicants

Scientific coordinators, scientific managers of the partners and participants included in submitted projects under the 2026 AAPG call undertake to abide by the values and commitments of the ANR listed in this section (and included in the submission Website dedicated to 2026 AAPG).

Added to this list is the formal commitment of each scientific coordinator and each scientific manager of a partner, the **primary obligation to have obtained the agreement of her/his hierarchy** (including the unit director, the relevant administrative and financial services, and people authorized to legally represent the institution managing the grant, or its representatives) **concerning her/his ongoing submission** and to have communicated the information related to the submission.

D.1. Ethic, scientific integrity and deontology

One of the main concerns of the ANR is contributing to the dissemination of ethical, scientific integrity, and social science responsibility culture, and it must be a priority for its recipients. Maintaining trust of the society in research stakeholders is contingent upon observance of the rules and values, which should govern research to ensure its honest and scientifically rigorous nature.

The ANR, who signed the French National Charter for Research Integrity, also adopted an Ethics Charter, which was amended in 2018 to include scientific integrity. For greater visibility of its coherent principles, the Agency formalizes its ethics, scientific integrity and professional conduct policy in [a single document](#) including all principles and operational schemes to ensure their proper application. This policy is backed by the appointment of an ethics and scientific integrity representative who ensures compliance with fundamental principles, the prevention and proper management of conflicts of interest and the training of collaborators internal and external to the agency.

In this context, the coordinator of a project registered or submitted to the AAPG call undertakes to ensure that all participants in the project (whether or not requesting funding) respect the principles set out in the national charter of ethics for research professions³⁶ and the ANR charter of ethics and scientific integrity³⁷.

The ANR encourages research teams involved in a project to integrate a reflection on the ethical issues that may be raised by the objectives, methodology, or expected results of their research project and its applications.

The ANR reminds each researcher that it is their responsibility to be aware of the recognized best practices in their scientific field and to rigorously implement them in conducting their work and

³⁶ <https://comite-ethique.cnrs.fr/wp-content/uploads/2024/03/Charte-francaise-de-deontologie-des-metiers-de-la-recherche-2015.pdf>

³⁷ <https://anr.fr/fr/lanr-et-la-recherche/engagements-et-valeurs/lintegrite-scientifique/>

publishing their results, so that they can be subjected to the scrutiny of the scientific community and made available for everyone to use.

D.2. Gender equality

The ANR is committed to address gender inequalities in higher education and research (ESR), and therefore added the principle of equality in its Ethics and Scientific Integrity Charter, rolled out [an equality action plan](#) resulting in the awarding of the “equality label” in 2023³⁸ and rolled out a [2nd action plan for the 2024-2027 period](#). The goals pursued include ensuring equal treatment between projects, whether these projects are coordinated by women or men. To this end, the ANR undertakes to train reviewers on the issue of potential gender biases in the selection process, and to regularly provide submission and selection data assessments.

The ANR is also committed to promoting women in science who received ANR funding, or were involved in scientific evaluation panels as chairwoman or panel member, to give them greater exposure and address an overly masculine representation of science, and encourage young women pursue careers in fields where they are either absent or in a minority.

In this context, the scientific coordinator of an ANR-funded project undertakes to provide equal visibility to all research work produced, whether it is conducted by women or men.

Moreover, the scientific coordinator undertakes, where relevant, to consider the sex and/or gender aspect in his / her research regardless of the field, set aside gender biases in the production of knowledge and anticipate the potential impacts of their applications.

D.3. Scientific publications and research data

As part of the contribution of the ANR to the promotion and implementation of Open Science, and in line with the French National Plan for Open Science (PNSO) and International Plan S, ANR recipients undertake to³⁹ :

Ensure immediate open access to peer-reviewed scientific publications

Thus, all scientific publications stemming from ANR-funded projects under the 2026 AAPG call will be made available in open access under the *Creative Commons CC-BY* license or equivalent, by using one of the three following approaches:

- publication in a natively open access journal;
- publication in a subscription journal that is part of a transformative agreement or transformative journal⁴⁰;
- publication in a subscription journal. The version of the publisher or the manuscript accepted for publication will be deposited in the Open archive HAL under a CC-BY license, implementing the Rights retention Strategy (RRS)⁴¹, according to the terms specified in the special conditions of the funding decision or agreement.

When submitting a proposal, the author will use the following wording in the article and/or letter addressed to the publisher:

³⁸ For more information, see our web page dedicated to our “Gender” commitment:

<https://anr.fr/fr/lanr/engagements/le-genre/>

³⁹ For more information, see our Webpage dedicated to our « Open science » commitment:

<https://anr.fr/fr/lanr/engagements/la-science-ouverte/>

⁴⁰ Definition of « [accord dit transformant](#) » or « [journal transformatif](#) » : <https://www.coalition-s.org/transformative-journals-faq/>

⁴¹ <https://www.ouvrirelscience.fr/implementing-the-rights-retention-strategy-for-scientific-publications/>

"This research has been funded, either in full or in part, by the French National Research Agency (ANR) under project ANR-nn-XXXX-nnnn. With a view to its publication in open access, the author has applied for an open access CC-BY licence for any manuscript accepted for publication (AAM) resulting from this submission".

The authors can use the Journal Checker Tool to check whether their selected journal or review complies with Plan S and which channel is open to them.⁴²

Furthermore, the project coordinator undertakes to ensure that **the full text** of these scientific publications (version approved for publication or version of the publisher) is deposited **in the national Open archive HAL**, with license CC-BY or equivalent, no later than the time of publication, and to mention the ANR research project reference (e.g., ANR-26-CE64-0001) from which they result, by associating a permanent identifier (DOI Crossref).

The ANR also recommends that peer-reviewed book chapters and scientific publications from ANR projects, be made available in open access under the Creative Commons license or equivalent (the CC-BY license is recommended). The ANR encourages submitting the full scientific text or publication in the national Open archive HAL (version approved for publication of the version of the publisher) and mention the ANR research project reference (e.g., ANR-26-CE64-0001) by associating a permanent identifier (DOI Crossref).

The ANR also encourages the submission of preprints in open platforms or archives.

Facilitate research data sharing and re-use, particularly for publication data,

In particular for data linked to publications, **by adopting a so-called FAIR approach** (*Easy to find, Accessible, Interoperable, Reusable*), in accordance with the principle "*as open as possible, as closed as necessary*", and provide within 6 months following the start of the project, a first version of the Data Management Plan (DMP) according to the terms communicated in the special conditions⁴³. In a simplification approach, the ANR recommends the use of the structured common DMP model available on DMP OPIDoR⁴⁴. Furthermore, beneficiaries undertake to deposit the data they wish to publish in a thematic reference warehouse, or in [recherche.data.gouv](https://recherche.data.gouv.fr/), indicating the reference of the ANR project from which they come. (ex ANR-26-CE64-0001).⁴⁵

Finally, in accordance with the 2nd National Plan for Open Science, the ANR recommends that the software developed during the project be made available under an open license and that the source codes be archived in Software Heritage and described in HAL, indicating the ANR project reference (e.g. ANR-26-CE64-0001).

A Data Management Plan (DMP) describes how data are produced, documented, (re)used, managed, and shared during and after a research project. It promotes the documentation of data according to the FAIR principles and facilitates data reuse. The DMP is a valuable document, especially when shared on platforms

⁴² <https://journalcheckertool.org/>

⁴³ In the context of simplification, and to promote the FAIR principles, ANR recommends the adoption of the [structured data management plan](#), available on DMP OPIDoR, which will notably enable auto-completion of ANR project administrative data.

<https://opidor.fr/lanr-publie-un-modele-de-pgd-structure-dans-dmp-opidor/>

⁴⁴ the structured data management plan enables an auto-completion of the administrative data (title, abstract, acronym...) from the project identifier (decision code). It enables also a more automated analysis of their content.

⁴⁵ To help you with your choice of data warehouse, consult the resources on [recherche.data.gouv](https://recherche.data.gouv.fr/fr/logigram/ou-publier-vos-donnees)

The open science committee has also drawn up a list of selection criteria for a trustworthy warehouse : https://www.ouvrirlascience.fr/wp-content/uploads/2023/11/Donnees_EntrepotConfiance_NoteMethodologique.pdf

such as HAL, and can also serve as a basis for writing a data paper.

Writing and updating a DMP are practices recommended by many stakeholders, including, at the national level, the “Réseau Science Ouverte” (Open Science Network) among funding agencies⁴⁶, and at the international level, the European Commission and the majority of funding agencies across Europe.

To support researchers in this process, Data Workshops (called “Ateliers de la donnée”) are local support services designed to provide research teams—upon request—with expertise in data management and dissemination⁴⁷

D.4. Promotion of scientific, technical and industrial culture

The ANR encourages beneficiaries of ANR funding to carry out and/or participate in knowledge transfer activities towards citizens and decision-makers: publication of articles in the press, interventions in the media, support for public decision-making, participation in science festivals, organization of general public debate, popularization action, writing of articles in a free online encyclopedia, etc.

Since 2021, the research programming law (LPR) has given way to a renewed conception of the relationships between science, research and society. In this dynamic, several calls for projects as part of the National Plan “Science with and for Society” have been launched for:

- support research in scientific mediation and communication;
- promote the development of scientific, technical and industrial culture within research and knowledge dissemination establishments and organizations;
- develop and structure participatory research;
- increase the capacity of expertise to support public policies to respond to major societal challenges.

Thus, the generic call for proposals integrates this commitment into its evaluation criteria, by formulating in step 2 an evaluation sub-criterion relating to the « *promotion of scientific, technical and industrial culture* ».

D.5. Accessing genetic resources and traditional knowledge associated with genetic resources

The Nagoya Protocol on the Access to Genetic Resources and the traditional knowledge associated with genetic resources, and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity was adopted on 29 October 2010. It contributes to the conservation of biological diversity, sustainable use of its components, and increasing the contribution of biological diversity to sustainable development and human well-being. The Nagoya Protocol significantly pushes forward the third objective of the Convention by ensuring greater legal certainty and transparency for genetic resources suppliers and users. The European Regulation No. 511/2014 and French Act No. 2016-1087 determined the terms of implementation for this protocol⁴⁸. Therefore, two check points are defined:

- during the funding stage for research efforts under the supervision of the French

⁴⁶ The open science network brings together the Agency for Ecological Transition (ADEME), the National Research Agency (ANR), the ANRS Emerging Infectious Diseases (ANRS MIE), the National Agency for Food, Environmental and Occupational Health Safety (ANSES), the Foundation for Medical Research (FRM) and the National Cancer Institute (INCa).

⁴⁷ <https://recherche.data.gouv.fr/en/data-workshops>

⁴⁸ Act for the recovery of biodiversity, nature and landscapes (Act No. 2016-1087 of 8 August 2016) and its implementation Decree on the « accès aux ressources génétiques » and on the « partage des avantages découlant de leur utilisation » (Implementation Decree No. 2017-848 of 9 May 2017).

Ministry of Higher Education, Research (MESR), and

- during the final product development stage, under the supervision of the French Ministry of Ecological Transition (MTE).

In this context, the ANR must obtain “Due Diligence” declaration receipts (DDD) for the research projects it has financed since 2019. Coordinators are invited to declare the potential use of genetic resources during their projects when submitting their project. Due Diligence declarations (DDD) for research projects are registered directly online via the dedicated application on the MESR website. Access can be requested from the head of the host establishment.

As part of research, DDDs can be registered online through the dedicated application on the MESRI website. Credentials to access the application can be obtained from the director of the hosting institution⁴⁹.

D.6. Scheme to protect the scientific and technical potential of the nation (PPST)

The competitiveness, reputation or the excellence of an establishment are based primarily on its capacity for innovation as well as the development and maintenance of knowledge and know-how. Each year, an increasing number of companies and research laboratories fall victim to attempts to capture strategic or sensitive information that may be used for malicious purposes.

The scheme to protect the scientific and technical potential of the nation (PPST) aims to protect the access, within public and private institutions, to the strategic knowledge and know-how, and sensitive technologies that contribute to the sovereign interests of the nation whose misappropriation or capture could:

- harm the economic interests of the nation,
- boost foreign military arsenals or weaken the capacity of the nation to defend itself,
- contribute to the proliferation of weapons of mass destruction and their vectors,
- be used for terrorist purposes nationally or abroad.

This inter-ministerial programme led by the French General Secretariat for Defence and National Security (SGDSN), which contributes to the economic safety of all public or private entities, has been implemented since 2012. It involves many ministries including the French Ministry of Higher Education, Research and Innovation (CIR No. 3415/SGDSN/AIST/PST of 7 November 2012). It allows:

- legal protection against malicious acts with consequences on the competitiveness of the entity (fraudulent use of information, theft or capture of sensitive data, anti-competitive practices, intrusion into information systems, etc.);
- the opportunity to build a trustworthy working team;
- government support in an approach to raise the security level of the entity;
- the ability to belong to a community of trust approving of industrial partnerships.

As recommended by Department of Defense and Security High Official (SHFDS) of the MESR, the ANR will implement the PPST as part of the 2026 AAPG for projects invited for step 2 that include within their consortia at least one enterprise and / or at least one foreign partner outside European Union. These projects are subject to the opinion of the SHFDS/MESR considering the national guidelines established by the SGDSN.

⁴⁹ For more information, please visit: <http://www.enseignementsup-recherche.gouv.fr/pid37627/utilisation-ressources-genetiques-associees.html>.

The project will not be selected following the AAPG evaluation process if SHFDS/MESRI provides a negative opinion. SHFDS/MESRI is not required to justify its opinion to the applicant.

Prior to any project submission to the AAPG call (any funding instrument), coordinators are invited to contact their services responsible for the application of the PPST within their establishments in order to check the eligibility of their project.

E. Provisions on GDPR and the dissemination of results

E.1. Personal data

The ANR uses data processing for the selection, project monitoring and impact studies to carry out its tasks⁵⁰. Personal data⁵¹ is collected and processed in accordance with Article 6.1 (e) and (c) of the GDPR⁵². This data undergoes processing necessary for the performance of a task carried out in the public interest and/or to comply with a legal obligation.

The ANR keeps personal data regarding non-selected projects for the duration required to evaluate the projects, after all appeal procedures have expired. The retention period for data relating to selected and funded projects runs for the duration required for the project to be monitored and controls to be carried out by authorised bodies⁵³.

The data collected for this purpose can only be disclosed to the relevant departments of the ANR, peer reviewers, and evaluation panel members, for projects they are involved in, and, where relevant, to regulators, departments within the ANR and administrations.

In application of the regulations in force, depositors – coordinators, partner scientific managers and participants – have a right of access, rectification, portability and erasure of their data, a right of opposition and limitation of the processing of their data, in accordance with the chosen legal basis. They have the right to exercise their rights by contacting the ANR Data Protection Officer, at the address: dpd@agencerecherche.fr

For more information, please refer to your rights on the [CNIL](https://www.cnil.fr/) (French National Commission for Data Protection and Liberties) website at <https://www.cnil.fr/>

Details regarding the safeguards taken by the ANR to protect the personal data it collects and processes are notified to data subjects when entering said data in the corresponding data processing systems⁵⁴.

E.2. Disclosure of documents

The ANR may be required to communicate a number of data and documents to constituents, other French or foreign funding agencies, other administrations (including its supervising authorities), regulators, under collaboration agreements, open public data, access to administrative documents⁵⁵, exchanges between administrations and the re-use of public sector

⁵⁰ Defined in Decree No.2006-963 of 01 August 2006 on the organisation and operation of the ANR.

⁵¹ Last name, first name of the researchers, date of birth, personal details, degree(s), position (current and previous), areas of work, organisation, address(es), curriculum vitae, ORCID number, project name and reference, pre-proposals, project proposals (scientific document, administrative and financial appendix).

⁵² General regulation (EU) No. 2016/679 on the protection of personal data.

⁵³ 10 years from the date when the grant was awarded for controls by the European Commission.

⁵⁴ IRIS and SIM website, submission and evaluation websites, processing for project monitoring, project portfolios and data analyzes.

⁵⁵ French Act No. 78-753 of 17 July 1978 on the communication of administrative documents, Act No. 79-587 of 11 July

information⁵⁶. Such communication can include, for example, project characterisation data, expertise, the summary report of the evaluation panel, project proposals, contract documents, scientific documents, administrative and financial appendices.

The dissemination and communication of such administrative data and documents are carried out in compliance with applicable regulations, and are subject to the protection of personal data, intellectual property and trade secrets. Indeed, a number of documents or data collected must not be disclosed or may only be done so in a restricted manner. In the case of collaborations with other funding agencies, or co-funding especially, document disclosure and confidentiality are regulated by contracts. The disclosure of documents will be limited to the area of collaboration between the ANR and project coordinating institutions.

F. Scientific themes of the 2026 Generic Call for Proposals

Each scientific theme corresponds to one scientific evaluation panel (CES) of the same name. Selecting the scientific theme most in line with the scientific objectives of your project therefore amounts to selecting the scientific evaluation panel in charge of evaluating your project.

The outlines of the scientific themes may have evolved in comparison with the 2025 AAPG call. The scientific coordinators are invited to carefully read the description of the scientific themes of the 2026 AAPG below before making their choice in the submission and registration Website in step 1.

As a reminder of the section « *Submission, evaluation and funding of projects under the 2026 AAPG* » (cf. [SB](#)), the scientific theme selected when submitting or registering a project in step 1 cannot be modified during the call evaluation and selection process.

Mobilising science to implement the 2030 Agenda⁵⁷ of the United Nations Sustainable Development Goals presents a major challenge for research and innovation for the next decade, particularly in terms of driving coherent digital, energy, social and ecological transitions, without leaving anyone out. In this context, the main "Sustainable Development Goals (SDGs)" concerned will be listed for each scientific theme.

"Environmental sciences" field

Theme A.01: Solid Earth and fluid envelopes

Contact: daniela.linares-ortegon@agencerecherche.fr

This research theme focuses on projects that seek acquiring fundamental knowledge of the functioning of all the Earth's abiotic and biotic compartments (geosphere, hydrosphere including oceans, cryosphere, atmosphere, critical zone and associated biosphere, etc.) and of the major cycles. The processes involved are the couplings, interactions, interfaces and continuums between these compartments and their impact on the major cycles. Its scientific scope includes the following topics in particular:

1979 on the motivation of administrative acts, Act No. 2000-321 of 12 April 2000 on the rights of citizens in their dealings with administrations.

⁵⁶ Order No. 2016-307 of 17 March 2016 codifying the provisions on the re-use of public information in the French Code of Relationships between the public and the administration, and its implementing Decree No. 2016-308 of 17 March 2016.

⁵⁷ <https://www.agenda-2030.fr/>

- atmospheric chemistry (transformation, outcome and dissemination of chemical species, micro-contaminants, aerosols and bioaerosols);
- atmospheric dynamics from the boundary layer to the upper atmosphere, and interactions with the continental and oceanic surface;
- the land-coast-open ocean continuum, including continental and marine processes in interface areas (coastline, estuaries/deltas);
- the functioning and evolution of the climate and major cycles (water, carbon, nitrogen and other substances, nutrients) in relation to energy (possible links with [theme H.09: Sustainable, clean, safe and efficient energy](#));
- cryosphere-climate interactions;
- couplings, interfaces and feedback between major compartments, at different spatial and temporal scales;
- the use of "Earth Archives" to understand the crises and changes in a continuum in the long/short term;
- knowledge of hazards and extreme hydro meteorological phenomena (linked with climate change in particular) and telluric;
- knowledge of geological media interacting directly or indirectly with the atmosphere and hydrosphere, including ecosystems and environmental impacts associated with deposits of mineral resources.

Related key words:

Research objects: aerosols; natural hazards and risks; atmosphere; visible and invisible biosphere for its impacts on major cycles; continuum (land-sea, soil-atmosphere, etc.); couplings and coupled approaches (multi-sensor/multi-scale spatial and temporal approaches including remote sensing); cryosphere; biogeochemical cycles (nitrogen, carbon, iron, phosphorus, rare earths, silicon, etc.); glacial cycles; experimentation; greenhouse gases; environmental impacts of mineral resources; fluid-rock interaction; water mass interactions (surface, underground, sea, etc.); interfaces; lithosphere; snowpacks; erosion mechanisms and processes; climate models; modeling; observation; oceans; optimization of ore deposit exploitation, subsoil, mining environment; paleoenvironments and paleoclimates analogous to those of the Anthropocene era; cloud physics; erosion processes and balance; critical zone responses to global change; carbon sequestration; time series (incl. proxies) and retro-analysis. proxies) and retro-analyses; soils; continental surfaces; Earth system and scale interactions; wetlands.

Research approaches: environmental chemistry; isotopic chemistry; climatology; geochemistry; geodesy; geology; geomorphology; geophysics; glaciology; hydrogeology; hydrology; meteorology; microbiology; mineralogy; oceanography; pedogenesis; petrology; sedimentology; stratigraphy; remote sensing.

Related ERC code.s : PE04, PE10, LS08

Related SDG: 6, 13, 14 et 15

Theme A.02: Living Earth

Contact: dimitri.neaux@agencerecherche.fr

This research theme concerns projects that seek to gain fundamental knowledge on biodiversity and the (spatial and temporal) dynamics of continental, marine, atmospheric and mixed ecosystems (coast, lagoons, etc.) with little if any anthropised systems, past or present. Its scientific scope covers:

- global description of biodiversity;
- knowledge of functional and population ecology, conservation or restoration ecology;
- the dynamic functioning and resilience of ecosystems, identification of tipping points;
- the origin, characterisation, evolution and dynamics of species, populations and communities and their interactions;
- the responses (morphological, physiological, behavioural and evolutionary) of organisms; populations, communities (for all species), ecosystems (terrestrial, aquatic, marine, atmospheric, mixed) to variations in biotic and abiotic environments;
- all clades in these ecosystems;
- the different levels of organisation, from molecules to ecosystems;
- models and scenarios for the future of biodiversity.

Related key words:

Research objects: acclimatisation; adaptation; protected areas; biodiversity; connectivity; conservation; freshwater and marine environments (including coastal and lagoon); invasive species; rare species; experiments and system modelling; forest; systems integration; migration; terrestrial environments; modelling; observation; trophic networks; resilience; restoration; rhizosphere; soils.

Research approaches: biogeochemistry; evolutionary biology; functional ecology; ecology; ecophysiology; ethology; population genetics; genomics; living labs; metagenomics; metatranscriptomics; microbiology; phylogeny; phylo-geography; systematics; essential biodiversity variables (EBV).

Related ERC code.s : PE10, LS02, LS08

Related SDG : 13, 14 and 15

Theme A.03: Biology of animals, photosynthetic organisms and micro-organisms

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This research theme concerns fundamental plant and animal biology with a cognitive approach towards long or very long-term practical applications on living species and applied plant and animal biology projects for livestock, food-producing animals, all photosynthetic organisms of interest, their dedicated models and associated organisms (micro-organisms, microbiota, pests, beneficial insects, etc.) and the interactions between these organisms.

All levels of regulation (genomic, transcriptomic, epigenetic, translational, metabolic, physiological, developmental, etc.) are concerned. Proposals are part of a continuum of scale from the gene and/or the molecule,

to the cell, the individual and the population.

Related key words:

Studied organisms: weeds; algae; animal; pests; model species; crop; fungi; holobiont; microorganism; photosynthetic organism; plant; pollinators.

Research objects: adaptation; allelopathy; aquaculture; biocontrol; animal behavior; determinism of animal welfare; development; farming; embryogenesis; insects; animal nutrition; plant nutrition; organogenesis; parasitism; pathogenicity; regulation; reproduction; biological networks; animal health; plant health; stress; symbiosis.

Disciplines: predictive approaches; biochemistry; bioinformatics; biostatistics; ecophysiology; entomology; epigenetics; genetics; genetic engineering; weed science; metabolomics; metagenomics; microbiology; modelling; physiology; phytopathology; proteomics; transcriptomics; signal transduction; virology.

Related ERC code.s : LS01, LS02, LS03, LS05, LS06, LS08, LS09

Related SDG : 2, 12, 14 and 15

Theme A.04: Food and food systems

Contacts : anaelle.rabes@agencerecherche.fr; marie-josephe.amiotcarlin@agencerecherche.fr

This research theme concerns fundamental or applied research projects on food, food systems and food supply chains, to ensure food safety, improve nutrition and promote healthy, safe, tasty, sustainable food that is accessible to all. These projects can focus in particular on the following topics:

- the biology of human nutrition, particularly for vulnerable populations (infants, children, pregnant women, senior citizens), including projects involving the microbiota but do not addressing pathologies;
- the development of technologies for processing agricultural production and associated technologies (key mechanisms, process simulation, digital approaches for on-line decision support, packaging...) and food traceability (authenticity, labelling, etc.), the development of low environmental impact processing (low-energy, low-water consumption, eco-designed, reusable and recyclable packaging, eco-responsible materials...), robust, high-performance processes, ensuring optimal use of resources and reducing food loss and waste;
- food safety (benefit-risk analysis in food systems in transition, dynamics of pathogenic microorganisms and chemical contaminant flows in food, including those from packaging...);
- the determinants and impacts of food transitions, including shifts towards sustainable agro-ecological and livestock practices, and changes in consumer behaviour;
- the social and economic organization of all food system actors, from agricultural production to consumption;
- systemic approaches to elaborate food quality and diets (from farm to fork), including microbial flows along the food chains;

- innovations: food product innovations, technological innovations, analytical innovations, digital innovations and organizational innovations to foster the transition to healthy, safe, tasty, sustainable food that is accessible and affordable to all.
- understanding how food systems function, and identifying socio-technical bottlenecks and solutions to improve food security and nutrition for populations at different scales (from local to global).

The overall aim is to provide a food supply that meets sustainable development objectives (<https://www.un.org/sustainabledevelopment/>). It must meet the needs of consumers, their health and well-being, be accessible and affordable to all, and be environmentally friendly. It integrates the various actors of food systems and also promotes the economic and social development of territories.

Related key words : food accessibility, food affordability; food product; food, diet; cultural and biological anthropologies; multi-stakeholder approaches; biochemistry; food biotechnology; food chemistry; clean label; competitiveness; conservation; food contaminants; decontamination; distribution; packaging; economy; epidemiology; food environment; fermentation; supply chains; formulation; taste and sensoriality; governance; ingredient; interaction microbiote-host-food; living labs; markets; contact materials; food microbiology; predictive microbiology; nutrition; pathogen; physico-chemistry; physiology; health and nutrition prevention; specific population; consumption practices; processes; participatory research; regulation; food security and nutrition, food safety ; sociology; food toxin.

Related ERC code.s : LS09, PE04, PE05, PE08, LS06, LS07, LS08, SH01, SH02, SH03

Related SDG : 1, 2, 3, 8, 10 and 12

“Materials Science and Engineering” field

Composed of seven complementary scientific themes, this field aims to support basic research in disciplines corresponding to materials science and engineering: two themes are dedicated to materials science, one theme to engineering and process sciences, two themes to chemistry, and two themes to physics. As a reminder, the themes devoted to physics were redefined for the previous Work Programme, with the creation of two themes in this field (B.06 and B.07) instead of a single one previously. The theoretical physics part that was previously in theme G.02 has been integrated into the new [Theme B.06: Physics of fundamental concepts and physics of dilute matter](#).

These disciplines are also engaged in other scientific themes presented in other areas of the Work Programme, notably in themes that aim to support research focused on a particular application (energy, micro and nanotechnologies for electronics, photonics, and digital technology, technologies for health, biomedical innovation, ecotechnologies, etc.) or themes dedicated to a sub-domain that is transversal to several applications (sensors, imagers, and instrumentation or nanomaterials, for example)

Theme B.01: Polymers, composites, chemical physics of soft matter

Contact: nela.roy@agencerecherche.fr

The scope of this research theme covers:

- the design and use of new, non-toxic monomers, oligomers and polymers, the functionalisation of natural and synthetic polymers and precision macromolecular chemistry as well as the development of synthesis pathways of polymer materials resistant to extreme conditions, resins for composite materials with polymerisations controllable at moderate temperatures, or systems for additive manufacturing. Proposals for material synthesis chemistries allowing for effective recycling of polymers will also be appreciated,
- the physical chemistry and engineering of soft matter. In particular, proposals are expected on the production of synthons whose self-assembling or self-organization properties enable the construction of supramolecular organisations with potential applications in the field of polymers and materials,
- the study and understanding of structure-property relations and multi-scale modelling of soft matter, polymer and composite materials with the goal of predicting their properties, including ageing,
- the development of polymer-based materials with special properties (thermomechanical, self-healing, etc.) for specific applications (sensors, membranes, smart textiles, etc.),
- organic matrix composite materials concerning various industrial sectors (aviation, automotive, construction, energy, health, etc.) and work aimed at improving their thermal and mechanical properties, improving their recyclability or introducing functional properties.

The community involved will include chemists, physical chemists and physicists. The projects will fall under the four themes

- chemistry and synthesis of polymers,
- supramolecular chemistry and physical chemistry and molecular assembly,
- functional polymeric and composite materials,
- polymer surfaces and interfaces,
- processes and development of new technologies for synthesis and shaping.

The projects will aim to take into account the challenges of sustainable development.

Projects using or shaping bio-sourced materials must be covered in [theme H.07 Bioeconomy: societal transition and associated technologies](#).

Supramolecular chemistry projects that are not aimed at applications in the field of polymers and materials must be submitted under the [theme B.04 Molecular Chemistry](#).

This theme also complements the [theme B.03 Engineering and process sciences](#): if the project is aimed primarily at the study of the mechanical behaviour of composite structures (behaviour, damage, etc.), it must be submitted under [theme B.03](#).

Related key words : supramolecular chemistry and physics; synthesis of supramolecular and macromolecular objects; self-assembly; properties of supramolecular and macromolecular objects; durability and life cycle of supra- and macromolecular systems; confinement; encapsulation; polymer chemistry; polymerization processes; photochemistry; additive manufacturing; polymer shaping processes; properties of functional polymer materials (composites, hybrids, biomaterials, membranes, etc.); functionalization; organic matrix composite materials; structural and mechanical properties of organic biomaterials; structural characterization; impregnation resins; molecular and hybrid materials; thin films; bio-inspired systems; soft matter; complex fluids;

oligomers; liquid polymers; surfactants; liquid crystals; micelles; vesicles; colloids; gels and hydrogels; molecular machines; stimuable systems; molecular recognition; surfaces and interfaces; microreactors; miniaturization; reduction of waste.

Related ERC code.s : PE03_13 (Structure and dynamics of disordered systems, e.g. soft matter, granular matter, liquids, glasses, defects), PE04, PE05, PE11

Related SDG : 9 and 12

Theme B.02: Metallic and inorganic materials

Contact: remi.bizot@agencerecherche.fr

This theme aims to support research projects in the field of metallic and inorganic material science, relying on the disciplines of solid chemistry and condensed matter, solid state physics, metallurgy and the mechanics of solids.

The scope of this research theme covers:

- metal or ionocovalent type materials (metals and alloys, ceramics and glasses, inorganic compounds, hybrids, natural materials, etc.) and surfaces and interfaces that are associated with them:
- the development of new materials and innovative approaches both in terms of the implementation processes and the desired properties,
- surface treatments or thin film coatings conferring new characteristics or functionalities to the solid material,
- the substitution of elements (for reasons of scarcity, chemical risk, cost, etc.), the design of more easily recyclable materials, the reuse of recycled raw materials to develop new materials,
- new materials for use under severe energy, mechanical or chemical stresses.

Proposals will therefore come under the following five topics:

- inorganic functional materials,
- metallurgical science and engineering,
- surface and interface: functionalisation, surface treatment,
- assemblies,
- fabrication of materials.

This theme also complements the [theme B.03 Engineering and process sciences](#) with regard to the development, production or recycling of materials: projects aimed primarily at studying and understanding the (mechanical) properties of a material obtained by using a specific development process (not necessarily innovative) must be submitted under this theme. However if the main innovation proposed concerns the development, production or recycling process, it must be submitted under [theme B.03](#).

The projects will aim to take into account the challenges of sustainable development.

Related key words: functional properties; multi-scale approaches for characterization and simulation; multi-physics couplings; metallurgical thermodynamics; production and shaping processes (by machining and treatment, additive manufacturing, synthesis, etc.); microstructures;

solid-state chemistry; tribology; surfaces; interfaces; damage; fatigue; corrosion; coatings; thin layers; recyclability; structural materials; structural and mechanical properties of inorganic biomaterials.

Related ERC code.s : PE03, PE04, PE05, PE07, PE08, PE11

Related SDG: 9 and 12

Theme B.03: Engineering and process sciences

Contacts: aymen.benamor@agencerecherche.fr ; lea.gardie@agencerecherche.fr

This research theme aims to support basic research in the following fields covering engineering sciences and process sciences, to improve the state of the art and knowledge, and to develop innovative methods, tools and technologies in these fields:

- processes and technologies for the development and manufacturing of materials, components, microsystems and structures (plasma processes, deposition, additive manufacturing, extrusion, laminating, assembly, etc.),
- chemical process engineering, bioprocesses, intensified and multifunctional processes, mechanical or thermal processes, eco-efficient methods,
- control and optimisation of processes, flows and transfers, mixtures,
- fluid mechanics (dynamic, fluid/structure interactions, fluid/material reactive interface, etc.), aerodynamics,
- acoustics, aero-acoustics,
- electrical engineering, provided that the project does not have an energy purpose (for example in microelectronics or in the field of health or sensors). On the other hand, if the project aims to contribute to the transformation, distribution or use of electricity (electrical machines, electrical transformers, power electronics, electrical networks, etc.), it must be submitted in the most relevant themes of the energy domain (i.e. [H.08 Basic energy sciences](#) or [H.09 Sustainable, clean, safe and efficient energy](#)),
- mechanics, structural engineering, geotechnical engineering,
- biomechanics and bio-engineering mechanics,
- bio-inspiration for engineering, biomimetic engineering,
- systems engineering.

This theme is open to a broad spectrum of scientific approaches: modelling and simulation, experiments, etc. and coupled approaches in particular.

This scientific theme does not target specific applications. It is complementary to themes dedicated to a specific application, which may also include projects mobilising engineering sciences from this perspective (for example, energy for themes [H.08 Basic energy sciences](#) and [H.09 Sustainable, clean, safe and efficient energy](#) or the medical field for theme [H.13 Healthcare technologies](#)).

It is also complementary to the themes focused on materials science and which mainly mobilise physics and chemistry but which also target questions of mechanics and behaviour/resistance at

the materials level ([B.01 Polymers, composites, chemical physics of soft matter](#) and [B.02 Metallic and inorganic materials](#)).

It is complementary to the [B.04 Molecular Chemistry theme](#): projects whose innovative part is in synthetic chemistry, even if they are also interested in process engineering aspects (such as flow synthesis), should be submitted in the [B.04 theme](#).

Lastly, it is complementary to [theme H.19 Transformation of production systems for goods and services](#), which covers manufacturing issues on a more integrative scale (organisation based on process, automation, production chain, product industrialisation, etc.) than here.

Related key words: development and manufacturing processes and technologies; additive manufacturing; process engineering; chemical engineering; bioprocesses; eco-efficient processes; thermodynamics; fluid mechanics; acoustics; electrical engineering; structural mechanics; structural engineering; geotechnical engineering; biomechanics; mechanics for bioengineering; bio-inspired engineering; systems engineering.

Related ERC code.s : PE07_03, PE07_04, PE08 (except PE08_06 Energy processes engineering), PE11

Related SDG: 9

Theme B.04: Molecular chemistry

Contact: justine.pallu@agencerecherche.fr

This scientific theme is dedicated to supporting research in molecular, organic or inorganic, chemistry. Any fundamental advance or ground-breaking concept in chemical synthesis, the choice of raw materials used, molecules and compounds obtained, processes implemented, etc., for which innovations can subsequently be developed, has a significant potential application for the chemical industry and, more broadly, numerous industrial sectors that use chemical products.

The projects will aim to take into account the challenges of sustainable development.

This theme covers three additional subjects:

- the development of new reaction schemes or new molecules. Proposals on more environmentally friendly synthesis pathways as well as the synthesis of molecules of interest are expected,
- catalysis in general (enzymatic, heterogeneous, homogeneous or multiple, assisted). The stability and recycling of catalysts and the use of non-toxic metals or ligands will be targeted. Combination with activation processes may also be dealt with,
- eco-efficient processes and new reaction media.

The projects submitted under this theme can be experimental, theoretical technological or industrial. They may cover all manufacturing phases, from the selection of raw materials to the development of the reaction pathway.

Projects whose main problem or scientific or technological hurdle concerns chemical process engineering must be submitted under [theme B.03 Engineering and process sciences](#).

Projects at the chemistry-biology interface whose object and/or scientific challenge essentially concern synthetic chemistry must be submitted in this present axis. On the other hand, interface

projects oriented towards an application, an object or a scientific challenge mainly related to biology must be submitted under [theme C.01 Biochemistry and chemistry of living organisms](#).

Projects addressing bio-sourced chemistry must be submitted under [theme H.07 Bioeconomy: societal transition and associated technologies](#).

Projects aimed at the construction of supramolecular or macromolecular objects with a view to their use in the field of polymers and/or materials must be submitted under the [theme B.01 Polymers, composites, chemical physics of soft matter](#). However, supramolecular chemistry projects not aimed at this type of application must be submitted under this theme.

Related key words : new families of molecules; synthesis methodology; design of new ligands; structure-property relationships; chirality and asymmetric synthesis; bond activation and reaction processes; heterocyclics; heteroelement chemistry; organometallic catalysis; electrocatalysis; photocatalysis; multistep catalysis (dual, hybrid, tandem); supported catalysts; redox catalysis; biomimetic catalysis; enzymatic catalysis; artificial enzymes; total synthesis; mechanistic studies; physical activation methods (ultrasound, microwave, high pressure, mechanochemistry, etc.); cascade reactions; tandem; one-pot reaction; flow synthesis; extraction and separation; innovative reaction media; eco-compatible and sustainable synthesis (solvent-free, reduction of waste, catalyst recycling, alternatives to rare and/or toxic metals, etc.).

Related ERC code.s : PE04, PE05

Related SDG : 9 and 12

Theme B.05: Analytical chemistry, theoretical chemistry and modelling

Contact: thibaut.masson@agencerecherche.fr

This theme welcomes proposals where the core research mainly targeted fundamental science and techniques in the following chemistry disciplines:

- theoretical chemistry/modelling,
- analytical chemistry,
- spectroscopy and spectrometric techniques,
- innovative instrumentation for chemistry.

It also covers methodological and instrumental developments for spectroscopies and theory.

Related key words : theoretical chemistry; modeling/simulation (molecular dynamics, ab initio methods, Monte Carlo, etc.); physical chemistry (photochemistry, electrochemistry, thermodynamics, etc.); chromatography; NMR; EPR; spectroscopies (UV-visible, IR, Raman, X-rays, etc.); electron spectroscopy; mass spectrometry; miniaturization; imaging; trace detection; structural properties.

Related ERC code.s : PE04

Related SDG: 9

Theme B.06: Physics of fundamental concepts and physics of dilute matter

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The scope of this research area mainly covers fundamental physics themes, corresponding essentially to the ERC PE02 disciplines (except for sub-disciplines PE02_02, 03, 04, 06 et 07) “Fundamental Constituents of Matter: particle, nuclear, atomic, molecular, gas, plasma, and optical physics”.

This theme concerns all innovative developments in theory and models, instrumentation, measurements, data processing and exploitation in atomic, molecular, gas, plasma, or optical physics.

This theme also supports theories and models that contribute to the understanding of the foundation of physics, including mathematical physics and algorithmic studies. Exceptions are made for those in connection with phenomenology in subatomic physics, nuclear physics, astrophysics, and cosmology which must be submitted under the [G.02 theme](#), and those relating to condensed matter physics, soft matter, or biophysics which fall under the [B.07 theme](#).

However, theoretical questions related to condensed matter physics and applied to experiments with quantum gases, as well as fundamental models associated with physics beyond the standard model in the context of optical, atomic, or molecular physics, fall within the scope of the [B.06 theme](#).

Finally, projects that fall under the generic topic “Quantum Technologies” are to be addressed in [theme E.06 Quantum sciences and technologies](#).

Experimental, numerical, or theoretical projects are equally eligible.

Related key words : theoretical physics; fundamental models of classical and quantum gravity; mathematical physics (including integrable systems); field theory; string theory; tests of fundamental laws by low-energy experiments; fundamental aspects of equilibrium and non-equilibrium statistical mechanics; classical and quantum dynamical systems; physics of fundamental quantum processes; quantum fluids and gases; quantum information; atomic and molecular physics; atomic and molecular ions; ultracold atoms and molecules; trapped ions; atomic and molecular collisions; optics (nano-optics, nonlinear optics, quantum optics, ultrafast optics, etc.); optomechanics; laser physics; radiation-matter interaction; electromagnetism; control and characterization of waves in complex media; gas and plasma physics; laser-plasma interaction; confinement fusion; aggregates; nonlinear physics; atomic and molecular spectroscopy; instrumental developments; metrology.

Related ERC code.s : PE02_01, PE02_05, PE02_08 to PE02_18

Related SDG: 9

Theme B.07: Condensed matter physics

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The scope of this theme covers a broad field of physics, mainly fundamental, corresponding essentially to the ERC PE03 disciplines “Physics of condensed matter: structure, electronic properties, fluids, nanosciences, biophysics”.

Soft matter physics, traditionally part of the physics of condensed matter, is covered by this theme. However, proposals concerned with the physical chemistry of soft matter must be submitted under the [theme B.01 Polymers, composites, chemical physics of soft matter](#).

Projects concerning the physics of biological systems, from the sub-cellular scale to that of tissues and/or organs are also considered in the case of innovative physics projects backed by a sufficiently detailed biological question. Similarly, the projects in this field focused on innovations in biology with implications for both cell biology and embryonic development as well as underlying molecular and genetic mechanisms, are to be addressed in [theme C.04 Cellular biology, developmental biology and evolution](#).

This theme also includes the interaction between radiation and condensed matter, as well as all the theory of condensed matter except for research related to quantum gases (which are in the [B.06 theme](#)). It also includes theoretical statistical physics in its aspects relating to soft matter, or to fluid mechanics or biophysical systems, the more fundamental or mathematical part being in [theme B.06](#).

As for the B.06 theme, projects that fall under the generic topic "Quantum Technologies" are to be addressed in [theme E.06 Quantum sciences and technologies](#).

Experimental, numerical, or theoretical projects are equally eligible.

Related key words : quantum materials; topological materials; materials for optics (laser materials, nonlinear materials, etc.); macroscopic quantum phenomena; strongly correlated fermions; superfluidity; superconductivity; magnetism and spin electronics; heterostructures and nano-objects; growth; molecular electronics; mesoscopic physics; plasmonics; photonic and electronic interactions; solid-state spectroscopy; nanophotonics; frequency conversion; condensed matter theory; structure of solids and liquids; physics of mechanical behaviour; surfaces; structure and dynamics of disordered systems; transport phenomena in condensed matter; ultrafast dynamics in materials and nanostructures; self-organization; fluid physics; physical hydrodynamics; turbulence; instabilities; non-equilibrium phenomena; physics of biological systems; complex and active systems; granular materials; morphogenesis; instrumental developments; metrology.

Related ERC code.s : PE03

Related SDG : 9

"Life Sciences" field

The 11 themes of the "Life Sciences" domain and the cross-cutting themes H.03 and H.13 aim to cover the entire "Biology and Health" field. Translational research projects submitted to all of these themes as well as the cross-cutting themes H.02, H.03, H.04, H.13, and H.14 can apply for co-funding from the DGOS (General Directorate for Healthcare Provision) if a health care facility is a partner (Translational Research Program in Health, PRT-S).⁵⁸

Theme C.01: Biochemistry and chemistry for living organisms

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This research theme seeks to characterise, modulate and model the chemical and biochemical transformations made by the cell. Its scope, at the interface between biology and chemistry, covers the following topics:

⁵⁸ A specific annex dedicated to the DGOS co-funding will be available on the 2026 AAPG webpage from september 2025.

- enzymology, pharmacology, toxicology, medicinal chemistry, chemobiology, bioorganic chemistry, bioinorganic chemistry
- studies on metabolism and bioenergetics,
- signalling pathways and post-translational changes,
- chemical changes to biomolecules, natural or not (nucleic acids, proteins, glycans, etc.) and their potential applications,
- analytical approaches for studying biological systems, including quantitative proteomic, lipidomic, glycomic, metabolomic and multi-omic quantitative analyses, including in single cells
- Approaches to understand and act on living organisms and their applications to the detailed analysis of mechanisms in functional biology and in health and environment (synthesis, screening and molecular engineering, probes, modulators, chemical proximity inducers, ligands, molecules for diagnostic or therapeutic purposes),
- the design of new biological systems (synthetic biology, bio-engineering) and the controlled alteration of metabolic and biological macromolecular production pathways, in an attempt to understand the fundamental mechanisms of living organisms or to develop their biotechnological applications.

Projects at the chemistry-biology interface may either address a specific biological question or focus on developing original concepts or tools designed to explore, modulate, or mimic living systems.

Projects at the interface between chemistry and biology dealing with an application, an object or a scientific challenge mainly related to biology should be deposited in the present theme. Those whose main scientific challenge is mostly linked to synthetic chemistry should be deposited in the [theme B.04 Molecular chemistry](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: biochemistry; chemobiology; bio-organic chemistry; bio-inorganic chemistry; metals and living organisms; enzymology; pharmacology; toxicology; medicinal chemistry; bio-energetics; glycobiology; proteomics; lipidomics; glycomics; metabolomics; synthetic biology; molecular engineering; screening; biotechnologies.

Related ERC code.s : LS01, LS02, LS07_8 to 13 and 16, LS09 (except LS09_2, 8 to 10, 12), molecular aspects of other panels LS.

PE04_11 (Physical chemistry of biological systems), PE05_11 (Biological chemistry and chemical biology), PE05_18 (Medicinal chemistry)

Related SDG: 3, 9, 14 and 15

Theme C.02: Characterization of structures and structure-function relationships of biological macromolecules

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This research theme aims at studying the molecular mechanisms of living functions through structural biology, advanced imaging, physico-chemistry and biophysics approaches. It covers the following topics:

- the study of biological mechanisms both in vitro (isolated, reconstituted or native multimolecular architectures) and in their natural environment, at the sub-cellular and cellular scales (isolated cells, multicellular systems up to the organ);
- structural biology approaches aimed at predicting and solving the structures of biological macromolecules (proteins, nucleic acids, lipids, oligo- or polysaccharides, ...) and their complexes (including endogenous native complexes) and deciphering their structure-function relationships;
- biophysical approaches for the study of macromolecules, their functions, interactions and dynamics, in isolation and in the cellular context;
- the association of the most efficient multi-scaled imaging techniques with data acquired through omics techniques (spatial genomic or proteomic);
- the characterization, modelling and reconstruction of networks of interactions involving supramolecular complexes and their disruption, for example during a pathological process;
- technological or methodological developments: in structural biology (NMR, crystallography, cryo-electron microscopy, cryo-electron tomography, etc.); in structural spectroscopy (IR, EPR, etc.); in imaging (super-resolution microscopy, correlative microscopies, ...); in signal processing, including multi-modal data integration; in artificial intelligence, mathematical modelisation, numerical simulation or molecular dynamics.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: structural biology; cell structural biology; integrative structural biology; correlative approaches; structure-function relationships of biological macromolecules and their complexes; membrane structures; compartments without membranes; biophysics; single molecules; methodological developments; systems biology; modelling; interaction networks; artificial intelligence.

Related ERC code.s : LS01, LS02, aspects related to the structure-function relationships of the other panels LS. PE03_16

Related SDG: 3, 9, 14 and 15

Theme C.03: Genetics, genomics and RNA

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This research theme covers the following topics:

Genome organization and dynamics

- Deciphering the mechanisms involved in establishing and maintaining genome integrity, 3D genome organization, chromatin and its epigenetic modifications (role of gene entities, non-coding DNA, transposable elements, non-coding RNAs and RNA-protein interactions), including in response to environmental conditions (exposome).

- Multi-scale modeling and simulation of DNA-protein interactions and 3D genome structure.

Genomic processes and regulations

- Detailed studies of replication, repair, recombination, transcription, RNA maturation, translation and transport processes.
- Transcriptional, post-transcriptional and translational regulation and deregulation.
- RNA biology and epitranscriptomics: impact of RNA modifications and their 3D structure on genome integrity and gene expression.

Computational approaches to genomics and modeling

- Application of artificial intelligence and machine learning to the analysis of “omics” data (genomics, transcriptomics, etc.).
- Prediction and modeling of gene and RNA-protein interactions.
- Prediction of variant effects.
- Systems biology approaches to modeling gene expression regulation.

Epigenetics and phenotypic plasticity

- Transgenerational inheritance of epigenetic modifications.
- Influence of epigenetic modifications on phenotypic plasticity and adaptation to changing environments.
- Impact of the environment and the microbiome on the epigenome.

Comparative genomics and genome evolution

- Comparative studies of eukaryotic and prokaryotic genomes to understand the evolution of regulatory networks.
- Development of new approaches for the analysis and functional characterization of non-coding regions.

Genetics and epigenetics of complex diseases, multi-omics approaches and prevention

- Integration of multi-omics approaches (genomics, transcriptomics, proteomics, metabolomics) to understand complex and rare diseases.
- Development of prevention strategies based on genetics and epigenetics, including early risk identification and targeted interventions.

Approaches and study models: Research will be carried out at the molecular and cellular levels, on bacterial, archaeal, unicellular and multicellular animal or plant eukaryotic models, or on patient cohorts and control populations. The approaches used will include molecular, cellular, genetic, transcriptomic and proteomic methods, as well as multidisciplinary approaches that may involve the use of structural biology, biophysics, computer science and/or mathematics. However, interdisciplinary approaches must remain at the service of the study of genomes.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: replication; repair; recombination; structure and dynamics of chromatin and bacterial nucleoid; epigenetics; gene expression; transcriptomics; non-coding RNAs; RNA maturation; ribosomes; translation; genome evolution; genetic diversity; genetic diseases; genotype-phenotype relationships; exposome; genetic tool developments; epitranscriptome; AI in genomics; multi-omics data integration; RNA structure and function; preventive genomics.

Related ERC code.s : LS02, LS01, LS08, LS09

Related SDG: 3, 9, 14 and 15

Theme C.04: Cellular biology, developmental biology and evolution

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This research theme covers the following topics:

- an understanding of the basic biochemical and biophysical mechanisms associated with living cells: cell cycle, biogenesis and dynamics of intracellular organelles and the plasma membrane, molecular mechanisms of senescence, ageing and cell death, signal reception and transduction, homeostasis and differentiation of different cell types, maintenance and differentiation of stem cells, cell adhesion, cell movement and migration,
- an understanding of these mechanisms at the tissue level in the organism or in multicellular systems reconstituted in vitro (organoids, tissue engineering) to decipher the basic principles of cell homeostasis, morphogenesis, the embryonic and post-embryonic development of animal and plant tissues, the ageing of eukaryotic tissues and multi-cellular organisms as well as the organisation of prokaryotic cell colonies,
- an understanding of these mechanisms in the context of the evolution of species and the adaptation to environmental conditions.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : intracellular trafficking; cell cycle; senescence; apoptosis; cellular homeostasis; cell differentiation; adherence-cell movement and migration; tissue homeostasis; morphogenesis; stem cell biology; developmental biology; signalling; evolutionary biology; cell physics; gametogenesis.

Related ERC code.s : LS03, LS08

Related SDG: 3, 9, 14 and 15

Theme C.05: Physiology and pathophysiology

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This research theme covers the following topics:

- an understanding of the hierarchical assembly of molecular and cellular components of tissues and organs as well as of the underlying signaling pathways, their interactions and the physiological properties generated by these interactions,

- an understanding of these interactions and properties within organisms as a whole and within the framework of inter-organ dialogue, including microbiota,
- an understanding of these mechanisms and of their alteration in pathological processes, including environmental factors.

Multidisciplinary proposals dealing with all biological, nutritional, behavioural, psychological and social determinants underlying physiological and/or pathological functioning may be evaluated in this theme.

Projects that mainly address a neurobiological aspect of these determinants should be submitted in the [Theme C.07 Molecular and cellular neuroscience - Developmental neurobiology](#) or in the [Theme C.08 Integrative and cognitive neuroscience](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: physiology; pathophysiology; multifactorial chronic diseases; ageing; metabolism; nutrition; reproductive biology; immuno-inflammation, endocrinology.

Related ERC code.s : LS04, LS07

Related SDG: 3, 9, 14 et 15

Theme C.06: Immunology, infectiology and inflammation

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This theme covers the following topics:

- the characterization of the molecular and cellular actors involved in the immune system of organisms and inflammatory reactions during adaptive and innate immune responses, in order to establish an integrated analysis of the immune system in normal and pathological situations, including in immunodeficiencies, inflammatory, auto-immunity, auto-inflammatory diseases, hypersensitivity, and organ and cell transplantation. This includes the mechanistic study of the effect of hyperactivation of the immune and inflammatory system at the systemic level at all ages of life;
- the mechanisms used by human and animal pathogens to take advantage of host cellular factors for their survival, dissemination, and transmission throughout the body;
- the identification of restriction factors of infection in humans and animals;
- the study of molecular and cellular mechanisms enabling the development and homeostasis of the different components of the immune system, in normal or pathological conditions including inflammation, allergy, autoimmunity and host-microbe interactions at all scales (cell, organ, organism, microbiome) and at all stages of life including feto-maternal. This includes the development of new models and mathematical and bioinformatics approaches to better understand these processes;
- the study of the interactions of the immune system with other major systems (digestive, nervous, cardio-respiratory) in homeostatic and pathological situations and in the aftermath of inflammation of infectious or non-infectious origin;

- the long-term evolution of infectious diseases and the impact of infectious diseases on chronic diseases.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: immune defenses; infectiology; host-pathogen interactions; host-graft interactions; pathogenicity of bacteria, viruses and parasites; inflammation; homeostasis and deregulation of the immune system; microbiology; microbiota; symbiosis/dysbiosis; immune deficiencies; allergies; autoimmunity; inflammatory process; modeling; graft response; approaches in immunotherapy; biomarkers; regulation.

Related ERC code.s : LS06

Related SDG: 3, 9, 14 and 15

Theme C.07: Molecular and cellular neuroscience – Developmental neurobiology

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This research theme covers the following topics:

- All studies at the molecular and cellular scale aimed at understanding the mechanisms governing the establishment, functioning, dynamics, and plasticity of the nervous system, brain–body interactions, and sensory organs, under normal or pathological conditions (including neurovascular, neuroendocrine, neuroimmune, and neuroinflammatory components).
- The hierarchical organisation of the molecular, cellular, and tissue components of the nervous system, the brain–organ axes, the sensory organs; and the relationships between their dynamics, their plasticity, and the functional properties of the nervous system.
- Understanding the mechanisms and identifying the environmental, molecular, and cellular determinants involved in common or rare pathologies of the nervous system (including those affecting the sensory organs), such as psychiatric, neurodevelopmental, and neurodegenerative disorders. The neurovascular, neuroendocrine, neuroimmunological (including neuroinflammatory and autoimmune) and neurosensory components of these pathologies are also included, except for non-neuronal aspects, which are covered by [Theme C.05: Physiology and Pathophysiology](#).

All invertebrate and vertebrate animal models are considered under this theme, along with the experimental and technological approaches and their development (imaging, computation and models, artificial intelligence, behaviour, electrophysiology, pharmacology, optogenetics, etc.).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: neurogenetics; cellular neurobiology; biophysics; brain–body interactions; neuropharmacology and neurophysiology; neurodevelopment; neuroendocrinology; sensory organs; neurodegenerative diseases; pain; addictions; psychiatry; mental health; ageing.

Related ERC code.s : LS05, LS03, LS07

Related SDG: 3, 9, 14 and 15

Theme C.08: Integrative and cognitive neuroscience

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This research theme covers the following topics:

- all integrative studies intended to understand high-level brain properties and functions,
- the different levels of organisation, hierarchy and interactions specific to the functioning of the brain, e.g. those involved in multi-sensory integration, motor planning and execution, decision-making, memory, behaviour, emotions, cognition and states of consciousness, brain-organ interactions, the specific aspects of the human brain including its social - e.g. self-awareness, language, relationships with others - and pathological dimensions,
- the mechanisms and biological, cognitive, environmental and social determinants of behaviour and learning, of normal and pathological brain and cognitive aging, of mental health disorders, neurodevelopmental diseases and autism spectrum disorders, neurodegenerative diseases, pain, addictions and rare diseases affecting the nervous system to prevent and treat them with the objective of promoting complementary aspects and synergies between basic research and preclinical and clinical research in the field of mental health, psychiatry and addictions,
- nervous system pathologies including cerebrovascular diseases and pathologies of the sensory organs except for non-neural aspects that are covered by the [theme C.05 Physiology and Physiopathology](#).

All study models are considered under this theme, including in-vivo, in-vitro, and computational models.

Experimental approaches include in-vivo functional and multi-modal imaging (MRI, fMRI, PET, photonics, ultrasound NIRS, MEG, EEG, surface/intracranial/mobile EEG and neurostimulation (tACS, tDCS, (r)TMS)), electrophysiology, computational analysis, brain-machine interface, artificial intelligence, behaviour, optogenetics, psychophysics, pharmacogenetics, data science, statistical physics etc...

An epidemiological approach to health inequalities in the mental health area is covered by the [Theme H.04 : Public health, health and societies](#). Technological developments without an integrative or cognitive dimension, including connected devices fall under the [Theme H.13 : Healthcare technologies](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: cognition; behavior; computational neuroscience; psychiatry; mental health; neurodegenerative diseases; pain; addictions; physiopathology and clinical approaches; cross-sectional studies; diseases affecting sensory organs; sensory-motor system; neurodevelopment; social and affective neuroscience; brain-organ interactions.

Related ERC code.s : LS05, LS07, SH04

Related SDG: 3 and 9

Theme C.09: Translational health research

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The goal of this research theme is aimed at funding studies positioned downstream from exploratory research projects carried out in research laboratories and upstream of clinical projects supported by the Hospital Clinical Research Programme (PHRC), managed by the General Directorate for Healthcare Provision (DGOS).

Proposals, which aim at the formulation of new hypotheses, that can subsequently be tested in a clinical research framework and are therefore located at the interface between basic and clinical research, are reviewed in this research theme.

Tissue engineering and regenerative medicine projects are supported under the [Theme C.11 : Biology and regenerative medicine](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : new therapeutic approaches; new diagnostic approaches; physiology; pathophysiology; personalized medicine; biomarkers; epidemiology; cohorts.

Related ERC code.s : LS07, LS04

Related SDG: 3

Theme C.10: Biomedical innovation

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This research theme covers the following topics:

- the study and validation of new therapeutic targets,
- the design and development of chemical or biological therapeutic products (including vaccines and nanomedicine),
- the new biomedicine formats optimised for production processes not related to regenerative medicine,
- relevant animal models for the biological and/or pre-clinical assessment of products of therapeutic interest,
- vaccine prevention methods;
- diagnostic and prevention tools and products,
- biomarkers.

PRCE projects are especially well suited for this theme to take into account the applications of the proposed research and their possible development (cf. description of the PRCE instrument).

Projects concerning medical devices, imaging and health technologies in general, fall under the specific [Theme H.13 : Healthcare technologies](#).

Tissue engineering and regenerative medicine projects fall under the specific [Theme C.11 : Biology and regenerative medicine](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: new therapeutic targets; drug-design; vaccines; biotechnologies; nanobiotechnology; biomarkers; pharmacology; medicinal chemistry; adjuvants; vectors; antibodies; biodrugs; bioproduction.

Related ERC code.s :LS07

Related SDG: 3 and 9

Theme C.11: Biology and regenerative medicine

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Regenerative medicine covers all therapeutic strategies aimed at replacing, repairing or regenerating damaged tissues or organs in situ. This multi-disciplinary and translational research theme covers the following topics:

- innovative biomaterials: their characteristics and interactions with the living world and their use in tissue engineering therapeutic approaches; pure materials engineering projects are thus excluded;
- medical devices interacting with the biological environment (active devices) to offset or replace dysfunctional tissues or organs
- research in cell and cell-free therapy for application in regenerative medicine. Immunotherapy and onco-haematology projects are excluded;
- stem cells (embryonic or induced): the study of the mechanisms of transdifferentiation/differentiation and proliferation of stem cells for their use in regenerative medicine. Basic research projects (cell biology, developmental physiology or biology) are excluded;
- in vitro physiological and/or pathological cell models (organoids, organ-on-a-chip, spheroids, etc.), including for therapeutic target identification and screening;
- research on molecular components contributing to the mechanisms of cell and/or tissue regeneration. Basic research projects (cell biology, developmental physiology or biology) are excluded;
- artificial, xenogenic or chimeric tissues or organs: all projects aimed at developing artificial organs for therapeutic purposes and their integration into the organ. Research on the preservation and/or reconditioning of explanted human organs, transplantation of new organs or tissues, tools to help monitor tissue regeneration. Projects aimed at creating purely technological artificial organs without any biological component are excluded;
- gene therapy research to regenerate tissue or organ functionality;
- research on new tools for the clinical grade production of advanced therapy products and demonstration of proof of concept.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: biomaterials; medical devices; cell therapy; gene therapy; stem cells; tissue ingeniering; Extracellular vesicule; trophic factors for tissue regeneration; organoids; organ-on-chip; pharmacological approaches; innovations in organ and tissue transplantation; transplantation; personalised medicine; biomanufacturing processes; proof of concept; monitoring of tissue regeneration; preclinical models; in vivo feasibility and tolerability.

Related ERC code.s : LS07, LS09, LS3, PE05_7 Biomaterials, biomaterials synthesis, PE8_8 Materials engineering (biomaterials, metals, ceramics, polymers, composites, ...)

Related SDG : 3 and 9

“Humanities and Social sciences“ field

The seven themes of the Humanities and Social Sciences program aim to cover the entire field, an objective of exhaustiveness that has led to the adoption of thematic or disciplinary titles, depending on the case. The items selected within each theme outline orientations that are not exclusive of other topics or issues.

Projects are expected to be mono- or multidisciplinary within the SHS, regardless of their approach (comparative, multi-scale, systemic, etc.) and their purpose (fundamental or applied research, academic, economic, or societal valorization).

Collaborations with researchers or teams outside the SHS fall under the cross-cutting themes, except where mentioned otherwise in the presentation of the themes below.

Theme D.01 : Individuals, companies, markets, finance, management

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This theme, which covers markets, finance, management, individuals and households, is intended to welcome projects dealing with the transformation of the economic and financial sphere and of productive systems.

The projects will come under the following topics (non-exhaustive list):

- individual and collective preferences and behaviour (households, consumers),
- company behaviour and strategies, HR management, marketing,
- industrial organisation, sector dynamics, networks,
- strategic interactions, networks, innovations and new technological trajectories, R&D,
- competition, regulation, financial institutions, financial markets,
- investment decisions, market fluctuations,
- historical and diachronic approaches to the economy, companies and markets,
- RSE, taxation, measurement indicators: performance, productivity, well-being, inequalities,
- international economics, development economics, international trade and commerce, trade policies, international distribution of value chains,

- transitions, indicators, impact measurement and sustainable growth.

Related key words: banks; well-being; social choice; trade; behaviours; accounting; competition; growth; econometrics; decarbonised economies and finance; sustainability; employment; companies; equilibrium(s); finance; taxation; fluctuations; individuals; inflation; innovation; interactions; investment; macroeconomics; management; markets; households; microeconomics; organisations; preferences; regulations; networks; human resources; pensions; risks; RSE; strategy; digital transformation.

Related ERC code.s : SH1

Related SDG: 1, 2, 3, 7, 8, 9, 10 and 13

Theme D.02: Institutions and organisations, legal frameworks and standards, governance, international relations

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This theme welcomes projects relating to the joint transformation of societies and institutions, organisations, legal, normative and political systems, at all scales. It covers the field of public policies, government, infra- and supranational stakeholders and public-private interactions. It encompasses an understanding of political organisations, modes of government and governance, contemporary regulatory and administrative systems and international relations.

The projects will come under the following topics (non-exhaustive list):

- changes in law, legal and normative systems; repertoires of action; applications and socio-political impacts of these transformations; standards; economic approaches to law, law and ethics,
- social and legal regulations pertaining to violence, judicial rules and organisations, public freedoms and security, challenges to the legal order,
- political theory, transformation of political systems (changes in democracies, new forms of collective mobilisation and protest), transformation of modes of government and governance at all levels,
- analysis of public action and policies at international, European, national and territorial levels,
- analysis of national and international state policies,
- globalisation, international relations, global governance, non-government stakeholders, geopolitics and geostrategy, contemporary war and peace processes;
- knowledge, expertise, data (including digital); political, social and legal data issues and protection thereof (e-health, big data, etc.).

Related key words : non-state stakeholders; public action; economic approach to law; big data; constitution; decentralisation, democracy; diplomacy; data; law; comparative law; human rights; states; ethics; expertise; federalism; governance; national defense; government; wars and peace; legal history; institutions; justice; legislation; freedoms and security; transnational logics; humanitarian assistance and development; administrative change; norms; philosophy of law; local authorities; control; practices; regulations; international relations; conflict resolution; knowledge; political science; judicial system; legal theory.

Related ERC code.s : SH2

Related SDG: 5, 10, 13 and 16

Theme D.03: Contemporary societies: state of, dynamics and transformations

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This theme welcomes projects relating to social transformations and dynamics, populations and settlements, integration and differentiation processes, education and training, health, work, sport, information and communication.

The projects will come under the following topics (non-exhaustive list):

- demography, families, life pathway, ageing, social trajectories, transformations of social groups,
- human and social health, public health and health care systems, disability, quality of life, health and human sciences,
- social approaches to work, public employment policies, working conditions,
- education, training, educational policies, school organisation, educational innovations and experiments, lifelong learning,
- inequalities, social, economic and environmental, discrimination, inclusion and exclusion logics, access to rights,
- contemporary developments in religion, secularisation and secularism, beliefs and practices, radicalisation,
- citizenship, mobilisation, participation, individual and collective action, social cohesion, conflict, delinquency,
- organisational communication, documentation, communication techniques, information management,
- media and social networks, infodemic, information and big data,
- food: food supply, food practices, food safety,
- sport(s), sport practices, sporting events, sport and health,
- tourism(s), tourist mobility, leisure.

Related key words: age; food; learning; social approaches to work; citizenship; communication; conflict; consumption; delinquency; demography; discrimination; education; employment; exclusion; religion; family; training; gender; disability; inclusion; inequalities; infodemic; information; secularism; media; life pathway; participation; poverty; pedagogy; social protection; health; solidarity; sport; care systems; tourism.

Related ERC code.s : SH3

Related SDG: 2,3, 4, 5, 10, 11, 12 and 16

Theme D.04: Cognition, behavior, language

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This theme welcomes projects allowing a better understanding of human cognition and thought (brain aptitudes and capacities; psychology) and their relationship with social, individual or collective behaviour. It encompasses studies on language, considered in its relations with other cognitive functions and through various approaches, if possible crossed (pragmatics, sociolinguistics, linguistic anthropology, etc.).

The projects will come under the following topics (non-exhaustive list):

- social cognition and social interactions, theory of mind, comparative cognition,
- individual behaviours, practices and decision-making; interactions between individual behaviours and collective entities or phenomena (institutions, social influences, public and private policies, etc.) ,
- social perception, social categorisation, non-verbal behaviour,
- cognitive and emotional development throughout life; influence of the environment (emotional, family, social, etc.) ,
- developmental, cognitive, sensory-motor disorders, disabilities,
- decision making, memory, cognition and consciousness, specific aspects of the human brain including its social dimensions,
- the interactions between language (creativity, use, behaviour), other cognitive functions (perception, attention, awareness, emotion, reasoning, memory, motor skills...) and the brain, acquisition and learning processes,
- and socio-linguistics, linguistic anthropology; theoretical linguistics, computational linguistics,
- human-machine interaction, artificial intelligence, verbal and non-verbal communication.

Related key words : discourse analysis; linguistic anthropology; cognition; verbal and non-verbal communication; behaviours; decisions; experiments; uncertainties; information; artificial intelligence; language; linguistics; human thought; social perception; pragmatics; psychology; human-computer relations; risks; cognitive sciences; socio-linguistics; theory of mind; developmental and cognitive disorders.

Related ERC code.s : SH4

Related SDG: 2, 3 et 4

Theme D.05: Arts, languages, literatures, philosophies

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This theme welcomes projects relating to texts and writing, literatures, languages, representations and artistic expression, the production, dissemination and reception of works, whatever their nature and medium; it also encompasses everything relating to theoretical and critical thought.

The projects will come under the following topics (non-exhaustive list):

- literature(s): history, theory, criticism; comparative approaches, poetics, genetics of texts; literature and humanities,
- creative processes and theories; economics, law, politics of creation,
- arts, live performances, images, music,
- architecture, design, fashion, contemporary decorative arts,
- aesthetics, metaphysics, logic, ethics,
- religious texts and traditions, new corpora, exegesis, receptions,

- diachronic and synchronic, descriptive and analytical approaches to languages; language(s), script(s), writing(s); rare languages, new languages; historical and cultural contexts of languages; multilingualism and interculturality,
- constitution and analysis of digital corpora (texts, images, sounds, etc.), digital philology, digital creations.

Related key words : architecture; arts; decorative arts; performing arts; visual arts; digital corpora; material and immaterial creations; literary criticism; epistemology; aesthetics; ethics; design; law and economics of creation; exegesis; textual genetics; history of the arts; literary history; humanities; creative and cultural industries; languages; languages and cultures; rare languages; historical linguistics; literature; comparative literature; literatures and languages; musicology; music; philology; philosophy; poetics; linguistic systems; book studies.

Related ERC code.s : SH5 et SH8_5, SH8_6, SH8_7, SH8_8, SH8_9

Related SDG: 4 and 8

Theme D.06: Studies of the past, heritage, cultures

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This theme welcomes projects relating to past societies, their history and archaeology. The challenge is to understand the diachronic structuring and organisation of societies, their relationship with their environment and their cultures. This theme also encompasses heritage in all its forms, and heritage issues.

The projects will come under the following topics (non-exhaustive list):

- forms of organisation and structuring of societies; comparative, cross-cutting, connected and global history; anthropology of social and cultural practices (body, food, sexuality, education, medicine, etc.) ,
- political and institutional history (powers, dominations, imperialisms and imperialities); history of conflicts and international relations, colonial and post-colonial history; laws, justice and penal practices,
- environments of the past, environments and landscapes, interactions between human societies and their environment, especially in the face of global change, history of environmental awareness. This topic could be the subject of interdisciplinary projects including disciplines outside the Social Sciences and Humanities field;
- cultural, economic, political, legal and technological contexts of material production; history and archaeology of gestures and techniques, skills and trades, exchanges and networks, objects and texts;
- expressions of symbolic thought: arts, value systems, ideas and representations, dynamics of religions, cults, rites, myths and beliefs; creation of identities;
- intellectual history, history of science, technology and literary knowledge;
- databases, documentary corpus, convergence of sources and cross-approach of the sciences of erudition;
- heritage (natural, cultural, tangible, intangible): study, restoration, conservation, legal protection, enhancement, process of patrimonialisation, at the national and international levels.

Related key words : archaeology; archaeomaterials; codicology; documentary corpus; beliefs and religions; territorial dynamics; exchanges; epigraphy; creation of identities; geo-archaeology; ancient history; contemporary history; history of conflicts and international relations; history of sciences; environmental history; intellectual history; medieval history; modern history; political and institutional history; social history and anthropology; museography; numismatics; paleoenvironments; palaeography; papyrology; symbolic thought; philology; memory practices and policies; prehistory; material production; protohistory; safeguarding, protection and conservation of cultural goods; sciences of scholarship; heritage sciences; techniques and technologies; heritage enhancement.

Related ERC code.s : SH5, SH6, SH8_1, SH8_2, SH8_3, SH8_4, PE10_6

Related SDG: 4, 8 and 15

Theme D.07: Societies and territories in transition

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This theme welcomes all projects with a geographical or spatial dimension and likely to enrich the understanding of territories (urbanised, urban, peri-urban, rural, productive, etc.) in all their dimensions, dynamics and interactions. A link is expected between spatial and temporal scales as well as levels of socio-political organisation.

The projects will come under the following topics (non-exhaustive list):

- socio-spatial systems, territorial transitions;
- places and non-places, spatial and territorial identities, relationship between societies and territories (including seas and oceans, air and outer space);
- mobilities and migrations, identities, belonging, models and forms of integration;
- rebuilding relations between centres and peripheries; borders, margins, integration, segregation, fragmentation, crime; city policies; housing markets, social, spatial and environmental justice;
- development and urban planning, land use, land, housing market, local taxation, property prices, regulation of real estate platforms;
- territorialisation of public policies, territorialisation of rights, extraterritoriality, law and territory, sovereignty;
- adaptation of socio-ecological systems to global environmental change; development and protection of resources and landscapes; social and territorial vulnerability and resilience; ecological, climate and energy transitions of territories; environmental empowerment, capabilities and agency; environmental conflicts and mobilisations;
- digital revolution and its consequences, smart cities, cyberspace;
- geomatics, geo-referenced data and corpora, databases and interoperability, cartography and critical approaches to maps.

Related key words: spatial analysis; databases; cartography; centre/periphery; city living; cyberspace; territorial dynamics and trajectories; spatial economy; low-density spaces; maritime and air spaces; extraterritorialities; land; geomatics; geo-referencing; globalisation; housing; metropolisation; modelling; globalization; multiculturalism; nuisances; landscapes; peri-urban;

pollution; region; regionalisation; resilience; resources; digital revolution; risks; rurality; segregation; smart cities; societies and territories; territories and productive systems; territorialities; ecological, climatic and environmental transition; urbanity; vulnerability.

Related ERC code.s : SH7

Related SDG: 7, 8, 9, 11 et 13

“Digital Sciences” field

Theme E.01: Foundations of digital sciences: computer science, automatic control, signal and image processing

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This theme concerns fundamental research striving for excellence and breakthroughs in the fields of computer science, automatic control, and signal and image processing.

Multidisciplinary projects oriented towards specific application domains and aiming for mutual scientific benefits between disciplines can also be submitted in the following themes:

- [H.14 Interfaces: mathematics, digital sciences – biology, health](#) ;
- [H.15 Interfaces: mathematics, digital sciences – Humanities and social sciences](#) ;
- [H.16 Interfaces: mathematics, digital sciences – Earth system sciences including climate, environment and biodiversity](#).

These axes are more suitable to interdisciplinary projects whose consortium includes researchers from the different concerned disciplines.

Related key words: algorithmics; signal analysis and representation; computer arithmetic; symbolic computation; calculability and decidability; correction codes; combinatorics; automation and control; control and observation; complexity; compression; cryptography; cybersecurity; detection-estimation; estimation and identification; fundamentals of databases; algorithmic geometry; theoretical computer science; languages and semantics; logic; formal methods; computational models; competition models; optimisation; operational research; software science; dynamic systems; graph theory; information theory; game theory; proof theory; systems theory and modelling; geometrical data processing; signal processing; image processing.

Related ERC code.s : PE01, PE06, PE07

Related SDG: 9

Theme E.02: Artificial intelligence and data science

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This research theme expects research in artificial intelligence covering, in a broad sense, machine learning and its mathematical foundations, as well as symbolic approaches, massive data processing and data science, and knowledge management.

The following themes are given as a guide:

- methods and models to manage and exploit large volumes of data, whatever are their variety, mode of production and quality;
- machine learning: learning theory, optimisation, new paradigms, constitution, annotation and corpus evaluation;
- methods and models for knowledge extraction and management: representation and reasoning about knowledge, data and knowledge mining, ontology engineering and its use in data enrichment and information retrieval, knowledge graphs, decision theory, multi-agent systems and the semantic web;
- research activities based on data and AI methods aiming at advancing the state of the art in order to complete complex tasks (computer vision, automatic language and speech processing, automatic translation, etc.), autonomous decision-making systems or systems enabling high-level interactions with human users;
- methods and models integrating, in a transverse way on its various themes, the scientific stakes linked to the deployment of artificial intelligence in particular in terms of trust and frugality, making it possible to ensure transparency, safety, trust, explanation of learning, decision and reasoning models, preservation of private life, equity.

Work contributing to research in Human-Machine Interaction and Robotics should be addressed in the [Theme E.04 Interaction, robotics, immersive worlds](#). Work combining digital sciences with other disciplines falls under this theme as multidisciplinary proposals, with the exception of work pertaining to the fields of health, transport and safety, or at the interface between AI and Social Sciences and Humanities and AI and environmental sciences. These should be addressed, respectively, in the transversal themes [Theme H.14 Interfaces: mathematics, digital sciences – biology, health](#), [Theme H.18 Cities, buildings and construction, transport and mobility: transition to sustainability](#) and [Theme H.17 Global security, resilience and crisis management, cybersecurity](#), [Theme H.15 Interfaces: mathematics, digital sciences – Humanities and social sciences](#) or [Theme H.16 Interfaces: mathematics, digital sciences – Earth system sciences including climate, environment and biodiversity](#).

Related key words: agentification; decision support; scene analysis and interpretation; machine learning (supervised, self-supervised, unsupervised, reinforcement, federative, distributed, decentralized, continuous, real-time ...); representation learning and domain transfer; learning from unstructured data; neuro-symbolic approaches; causality; certification; computational social choice; confidentiality; consensus and synchronisation; massive data; rare data; ethics; explicability; text and data mining (TDM); knowledge mining; data mining; data frugality; fusion; uncertainty management; imprecision; content indexing; distributed artificial intelligence; embedded artificial intelligence; hybrid artificial intelligence; responsible artificial intelligence; computational models; large-scale distributed computational models on data; foundation models; dynamic models; statistical models; generative models; hybrid models; ontologies; optimization; planning; privacy; experimental protocol; validation protocol; data quality; reasoning; heuristic search; information retrieval; operational research; pattern recognition; knowledge representation; reproducibility; robustness; constraint satisfaction; stability; trust systems; consensus systems; multi-agent systems; hybrid systems; model compression technics; game theory; automatic language and speech processing; multimodal data processing; transparency; validation; computer vision; data visualization; semantic web; scientific workflows.

Related ERC code.s : PE01, PE06, PE07

Related SDG: 9 and 14

Theme E.03: Software sciences and technologies- future networks, cloud and edge computing

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This research theme deals with proposals aimed at overcoming fundamental or applied research challenges in three main fields, sometimes combined or not:

- Software development, as an object of study on the entire software life-cycle, covering new programming languages, requirements engineering, design and production software engineering, including model-driven engineering, variability and adaptability management across all layers, program analysis, testing, validation, verification and software certification, etc. This area also aims at taking into account resources, safety, security and trust in software: eco-responsible software, compilation and optimization of, for example, AI-Embedded models, identification and correction of vulnerabilities in cybersecurity, dynamic adaptation and self-adaptive systems, ... This area also concerns the study of software production processes: infrastructure and integration into cyber-physical systems. Finally, the set up approaches are formal and/or empirical approaches, they support analysis of software and production practices. It also targets the design of software technologies for embedded systems integrating their various aspects and constraints (real-time, mixed criticalities, predominant software, cyber-physics, non-functional constraints, etc.);
- Communication networks as an object of study covering all its components and facets, taking into account their multiple topologies (ad hoc, peer-to-peer, mesh, edge, core networks, wireless and cellular networks, etc.), speeds (high-speed communications versus networks of objects) and usages. All the links go from the physical layer, including antennas and their interactions with the network, to the exploration of differentiated and mobile usage conditions, justifying analyses in terms of security, availability and reliability, and authorising context-sensitive services. This field of research also relies on progress in terms of standardisation (5G, 5G+, 6G), virtualisation and networks of the future (air-ground, satellite, etc.);
- High performance computing and communication infrastructures allowing the development of computing models, algorithms and the exploitation of massive parallelism, optimisation and dynamic management of resources based on quantitative properties and measurements (performance, robustness, memory, energy efficiency), programming environments and algorithms for the exascale. This field also targets the study of the distribution of computation on various topologies and network architectures ("edge cloud", fog, cloud, cache, etc.) connecting computation resources as well as the various aspects of virtualisation of applications, servers, networks (SDN), etc. without omitting the security aspects.

Related key words : hardware accelerators; programme and production practice analysis; active antenna; model-driven approaches; software architectures; heterogeneous hardware architectures; architecture and programmability of communication systems; cloud computing; optical communications; radio communication; optimised compilation to centralised or parallel (multi-core) architectures; service composition; design and development of languages and models; formal development of software and systems; energy efficiency: from measures to solutions; elasticity; reliability and availability; digital frugality; management of shared infrastructures; interference management; vulnerability identification and remediation; service-infrastructure interface; middleware; internet of things; programming languages; anti-malware;

testing and debugging methods; metrology; mobility; computational models for parallelism; distributed computing models; channel model; modulation; connected objects; network optimisation; orchestration of protocols and services; orchestration and optimisation of communication/execution/storage resources; real-time OS; massive parallelism; scaling; software stack; control, management and information plans; service platforms; proof of safety and security properties; software development process; cryptographic protocols; programming and web security; data privacy; virtual prototyping; QoS; security; end-to-end security; security of hardware systems; sciences and software engineering; context-sensitive services; trust solutions; self-adaptive systems; distributed systems and algorithms; embedded systems; Operating systems; supervision; access techniques; blockchain technology; traceability; verification and validation; virtualisation.

Related ERC code.s : PE06, PE07

Related SDG: 8 and 9

Theme E.04: Interaction, robotics, immersive worlds

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The projects expected in this research theme concern, on the one hand, Human-Machine interaction in all its dimensions, including natural dialogue, the creation of multimedia content, interfaces and the various cognitive processes from perception to cognition and, on the other hand, autonomous and interactive robotics in all its components (service robotics, medical robotics, industrial robotics, robotics for the environment, agricultural robotics, construction robotics, exploration robotics, multi-robot cooperative systems).

This research area also supports interdisciplinary research actions in particular at the interface with artificial intelligence.

If projects raise ethical issues, these should be addressed in the proposal.

Manufacturing robotics projects aiming at industrial performance rather than the development of robotics per se, are to be submitted in the [Theme H.19 Transformation of production systems for goods and services: human, organisational and technological challenges](#). Projects on Robotics for health that do not include robotics development should be submitted under the [Theme H.13 Healthcare technologies](#). Projects with applications in Interaction or Robotics but whose field of study is artificial intelligence should be submitted under the [Theme E.02 Artificial intelligence and data science](#).

Related key words : conversational agents; 3D animation; cognitive architectures; decision-making autonomy; sensors; physiological sensors; robotic mapping; cobots; human-robot collaboration; non-verbal communication; practice-centered design; user-centered design; participatory design; co-design; multimedia content creation; immersive environments; dialogue; multi-source data; interface ergonomics; exoskeletons; field robotics; computer-assisted medical-surgical gestures; humanoids; affective computing; collaborative interaction; device-technique interaction; human-system interaction; human-data interaction; instrument-organ interaction; multimodal interaction; adaptable interfaces; multi-sensory interfaces (gesture, touch, face, sound, speech, ...); brain-machine interface; mobility; planning; audio perception; cognitive psychology; augmented reality; mixed reality; virtual reality; rendering; haptic feedback; affective robotics; collaborative robotics and multimodal rendering; surgical robotics; handling robotics; manufacturing robotics; social robotics; agricultural robots; aerial robots; companion

robots; soft robotics; underwater robots; terrestrial robots; simulation; adaptable systems; multi-robot systems; ultrasound; touch-pressure; processing of particular image modalities (infrared); autonomous vehicles; interactive data visualisation; computer vision; wearable computing.

Related ERC code.s : PE06, PE07, SH04

Related SDG: 2, 3, 4, 5, 8, 9, 10, 11 and 12

Theme E.05: Modelling, simulation and optimization, High-performance computing, digital sobriety, applications

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Modelling, simulation and optimization are major scientific challenges for understanding and analyzing phenomena and their interactions, predicting and anticipating changes, improving processes.

To achieve significant scientific advances and breakthroughs, including:

- The development of new explanatory, predictive or inductive models, their parametrization, their control and model coupling;
- The resolution of these models (precision, stability, reduced cost/computational burden);

Proposals addressing

- Significant scientific breakthroughs on cutting-edge topics that are still open;
- Emerging topics, recently identified, particularly in connection with the development of data science;
- Multidisciplinary topics bringing together experts from various communities, including probabilists, analysts, statisticians, digital scientists, modelers, data science experts, modelers and experts in the targeted application areas;

are highly encouraged.

Among the challenges that can be addressed, we can cite:

- the development of models for complex problems that integrate physical and/or symbolic knowledge, optimization methods (robust, stochastic, etc.), the development of artificial intelligence techniques, notably learning techniques;
- the hybridization of physics-based modelling and data science, the development of quantum technologies and their coupling with other approaches;
- the development of explainable models for domain experts or post-hoc analysis methods fostering applicability is also expected;
- the spatio-temporal representation of results and data, augmented and virtual realities, immersive worlds, as well as high-performance data analysis and the deployment of data processing chains;
- programming tools and techniques on heterogeneous and parallel architectures, as well as the development of digital libraries and new numerical methods adapted to the new architectures, in particular exascale architectures;
- the development of approaches integrating hardware and software;

- algorithmic, numerical methods, the potential of high-performance computing, the construction and exploitation of reduced and surrogate models, temporal and spatial parallelism, variable-precision algorithms, and adaptive discretizations;
- specific challenges related to stochastic models, to quantization and to uncertainty propagation;
- digital sobriety, energy consumption, frugality.

Particular attention will be paid to the development of ambitious and structuring projects by communities combining expertise in extreme computing and mastery of a field of application (energy, climate, environment, cosmology, smart cities, industry 4.0, etc.) to bring their scientific models to a new scale or dimension that may require an exaflop supercomputer. The team will have to highlight the implementation needs of its scientific project in terms of adaptation, or even evolution, of all or part of the existing algorithms, as well as the implementation of complex workflows. The estimation of the impacts (financial, societal, environmental) of the work carried out must be taken into account.

Frugal technologies having low environmental footprint will also receive special attention.

The above text seeks to describe the themes included in this research area. The themes mentioned refer to the challenges and scientific work identified during the writing of this text. Research avenues that have emerged very recently and which are naturally related to this research area are included within the scope of this call.

Related key words: linear algebra; heterogeneous architectures, hybrid, CPU, GPU, FPGA, multi-core; data assimilation and inversion; scientific computation library; supercomputing; Computer cluster; co-design (software, hardware, application); control and observation; coupling of hardware and computer systems; domain decomposition; energy efficiency; exascale; computational frugality; management of large amounts of scientific data; HPC; digital twins; modelling languages; meshing; data-driven models; modelling and simulation; optimisation; electricity consumption measurement tools; massive, hierarchical and heterogeneous parallelism; scalability; performance; quantification of multi-scale, multi-physics uncertainties; model reduction; spatial and temporal data representations and structures; resilience/fault tolerance; scalability; heterogeneous and/or hybrid dynamic systems; operating systems; hardware abstraction techniques; validation and verification; scientific visualisation; workflows.

Related ERC code.s : PE01, PE06, PE07, PE08

Related SDG: 9

Theme E.06: Quantum sciences and technologies

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In accordance with the national quantum strategy and its programs, this research theme supports research activities related to the fields of "Materials Science and Engineering" and "Digital Sciences".

It covers technological and scientific projects demonstrating and/or exploiting the quantum advantage, from disrupting concepts to innovation. Thus, this research theme includes basic, applied, and technological research, as well as their possible combinations in the following areas:

- Quantum communications targeting, e.g. the development of secure quantum networks via quantum cryptography. This includes their sub-systems (sources, quantum memories/repeaters,

detectors, etc.), their architectures (topology, protocols, etc.), the resulting applications (networking of users, of processors, of sensors, etc.), as well as all usages of entanglement and quantum information distribution;

- Quantum computing, targeting the development of computing devices (such as quantum processors, quantum memories, quantum architectures, etc.), regardless of the supporting hardware platform and information coding, quantum algorithms, computing models, programming languages and environments, applications and use cases of quantum computing and simulation, certification and verification tools, quantum error correction tools, as well as noisy intermediate-scale quantum (NISQ) integration;
- Quantum simulation, targeting quantum devices made specifically for simulating materials, chemical compounds, or other physical phenomena, and for solving problems in other fields (high energy physics, chemistry, biology, pharmaceutical field, etc.);
- Quantum sensors and metrology, targeting the development of quantum system allowing for increased precision and repeatability. This includes all physical platforms serving the field, such as innovative and non-invasive imagery systems (especially for biology and the medical field), inertial sensors for geolocalisation and geosciences, systems for the metrology of materials, atomic clocks, magnetometers, electrometers, optomechanical systems, etc.

Projects with a multidisciplinary dimension and bringing together complementary skills are encouraged.

Related key words : accelerometers; quantum algorithms; amplifiers at the quantum limit; Rydberg atoms; quantum dots; hybrid quantum-classical computing; quantum calculus; quantum sensors and metrology; quantum circuits and processors; multipartite communication; quantum communication; optimal quantum control; quantum error correction; quantum cryptography; decoherence; defects in solids; e-FTQC; estimation; quantum feedback; FTQC; quantum gas; graphene; gravimeters; gyrometers; atomic and nuclear clocks; quantum imaging; integration; entanglement; rare earth ions; standard quantum limit; magnetometers; 2D materials; quantum memories; non-destructive quantum measures; control and verification methods; error mitigation; models, software and programming environment for quantum computation; NISQ; non-locality; optimisation; quantum computer; quantum photonics and optics; hardware platforms; quantum logic gates; communication protocols; hardware independent protocols; qubits; qudits; reconstruction of quantum states; repeaters; quantum networks; opto-mechanical resonators; quantum information science; quantum simulation; sources of quantum light; electron and nuclear spins; squeezing; superposition; superconductors; quantum systems: trapped atoms and ions; hybrid quantum systems; topological systems; quantum tomography.

Related ERC code.s : PE02, PE03, PE06

Related SDG: 9 and 16

“Mathematics and its Interactions” field

Theme F.01: Mathematics

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This theme concerns fundamental research striving for excellence and breakthroughs in the fields of computer science, automatic control, and signal and image processing.

Multidisciplinary projects oriented towards specific application domains and aiming for mutual scientific benefits between disciplines can also be submitted in the following axes:

- [H.14 Interfaces: mathematics, digital sciences – biology, health](#) ;
- [H.15 Interfaces: mathematics, digital sciences – Humanities and social sciences](#) ;
- [H.16 Interfaces: mathematics, digital sciences – Earth system sciences including climate, environment and biodiversity](#).

These axes are more suitable to interdisciplinary projects whose consortium includes researchers from the different concerned disciplines.

Related key words : commutative and non-commutative algebra; analysis; functional analysis; harmonic analysis; numerical analysis; real and complex analysis; statistical learning; scientific computing; control theory; cryptography; partial differential equations (deterministic and stochastic); ordinary differential equations (deterministic or stochastic); algebraic geometry; arithmetic geometry; differential geometry; history of mathematics; homogenisation; logic; discrete mathematics and combinatorial; mathematics for astrophysics; mathematics for biology and health; mathematics for economy and society; mathematics for the environment, earth-sciences and earth-system; mathematics for fluid and solid mechanics; mathematics for quantum phenomena; mathematics for signal and image processing; statistical mechanics; modelling; optimisation; mathematical physics; IA-based mathematical proof; probability; inverse problems; stochastic processes; simulation; statistics; classical and quantum dynamic systems; category theory; ergodic theory; game theory; number theory; operator theory; representations theory; topology; data processing.

Related ERC code.s : PE01, PE06

Related SDG: 9

“Sub-atomic Physics, Sciences of the universe, and Earth sciences” field

This field consists of two scientific themes, one dedicated to Earth and planetary sciences, and the other to subatomic physics and astrophysics. It should be noted that the theoretical physics component, which was previously linked to theme G.02 in the previous Work Programme, has been integrated into the new physics [theme B.06 Physics of fundamental concepts and physics of dilute matter](#).

Theme G.01: Planetary science, structure and history of the Earth

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This theme corresponds to research work aimed at acquiring fundamental knowledge and highly innovative developments in instrumentation, networking, data processing and exploitation, to study and resolve cutting-edge scientific problems in the field of planetology, planets of the solar system and exoplanets, exobiology, the structure and history and dynamics (geological, paleontological, climatic) of the Earth and its distant paleoenvironments (since the primitive Earth).

Related key words : hazards (telluric hazards, space meteorology and near-Earth objects); chemistry and physics of planetary atmospheres; cosmochemistry; instrumental development; exobiology; exoplanets; planetary formation; small celestial bodies; planetology; Sun-Earth relations; natural mineral resource formation; geochemistry; geochronology; geodesy;

geodynamics; geology; geomagnetism; geomorphology; geophysics; mineralogy; paleoclimatology; pre-anthropocene palaeoenvironments; palaeomagnetism; palaeontology; petrology; petrophysics; sedimentology; seismology; tectonics; early Earth; deep Earth; volcanology.

Related ERC code.s : PE09_1, PE09_2, PE09_3, PE09_4, PE09_13, PE10

Related SDG: 9

Theme G.02: Sub-atomic physics and astrophysics

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This theme aims to support research work to develop fundamental knowledge, models and their phenomenological aspects, and to contribute to innovative developments in instrumentation, measurement, data processing and valorization in the fields of subatomic physics, nuclear physics, astrophysics and cosmology.

It should be noted that theories and models contributing to the understanding of fundamental physics, including mathematical physics, field theory and string theory, fall within the scope of the [theme B.06 Physics of fundamental concepts and physics of dilute matter](#). Are also related to the theme B.06 the works aimed at testing the fundamental models associated with physics beyond the Standard Model in the context of low-energy experiments in optics, atomic or molecular physics

Related key words : physics of fundamental interactions; particle physics; subatomic physics; accelerator physics; nuclear physics; space-time reference systems; astrophysics; astrochemistry; astronomy; high-energy astronomy; astroparticles; multi-messenger astrophysics; galaxy formation and evolution; interstellar medium; star formation and planetary systems; stellar physics; solar physics; cosmology, dark matter and dark energy; gravitational waves; classical and quantum gravity; physics beyond the Standard Model; simulation, computation and data exploitation; instrumental developments.

Related ERC code.s : PE02_02 to PE02_07, PE09_05 to PE09_13

Related SDG: 9

Cross-cutting themes

Theme H.01: Sustainability Science

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This theme is expecting projects studying the complex interactions between natural, socio-economic, and political systems, and how these interactions impact, over time and space, the planet's life support system (biodiversity as a whole), socio-economic development, the management of socio-economic inequalities, and the well-being of living beings. Its ambition is to provide science-based solutions to the major global environmental and societal challenges, and to support major societal transitions while considering the associated risks. In an integrated and interdisciplinary approach, sustainability science promotes the study of the functioning and dynamics of eco- and anthropo-systems, including all underlying interactions and feedbacks in all their dimensions. These are multiple and involve interactions between environmental,

ecological, climatic, and physico-chemical processes, as well as cultural, historical, legal, political, and socio-economic factors.

This theme also addresses how societies are, or are not, becoming active (or passive) participants in their own sustainability, the mechanisms and transformations they implement for this purpose. It breaks down the boundaries of research around a common objective and particularly promotes the consideration of interactions between the 17 Sustainable Development Goals (SDG).

This theme also aims to enhance the appropriation of sustainability science challenges by the scientific communities of physic, chemistry, and biological engineering or the humanities sciences. For example, it may involve energy issues or interventions in local or global climate systems. The proposed projects should analyse major topics of interest such as biodiversity, climate, energy, and the key nexus areas (e.g., biodiversity, climate, water, resources, energy, food, ocean, health, technology, digital, society). They must take into account the complexity of socio-ecosystems in their local contexts and interactions with other scales (national, regional, international). These projects may explore sustainability as a research object (concepts, practices, methods, etc.), or analyse different trajectories or cases of transformation.

They should produce new knowledge, and may lead to the development of decision-making tools for private or public sectors and/or the deployment of sustainable solutions that contribute to achieving the SDG.

The theme will support projects addressing at least two of the following three components:

- Characterisation of socio-ecosystems, including issues such as conflicts of use and management, resource tensions, actors' behaviors and strategies, inequalities, public policies, risks (including those linked to hazards and extreme events), ecosystem vulnerabilities, targets to achieve, barriers to overcome, etc.;
- Research into means and solutions such as restoration, remediation, adaptation, mitigation, designing pathways toward targets, organisational solutions, early warning systems, ecological and climatic engineering, nature-based solutions, etc.;
- Research into the necessary conditions for transitions and transformations based on governance, new socio-economic models, new relationships with life and the environment, technological and social innovations, justice, public policies, etc.;
- Identification of barriers and blockages preventing transitions and transformations.

Projects under this theme H.01 must:

- Be focused on transformation and transition dynamics towards greater sustainability in the context of environmental, climatic, and societal changes (testing, among other things, the "theory of change");
- Systematically present inter- or transdisciplinarity by involving researchers from at least two different disciplinary fields in collaborative projects.

When appropriate, the research issue and its implementation can be co-constructed with stakeholders and contribute to forms of participatory research.

Related key words:

Sustainability: sustainable development; risks; uncertainties; food/water/energy nexus, health/biodiversity/agroecology, etc.; resilience.

Environmental and Ecological Aspects: ecological vulnerability and biodiversity; finiteness of natural resources; loss of ecosystem services; sobriety; frugality.

Socio-economic and political dimensions: conflicts of use; behavior; social justice; mobilisation; vulnerabilities; economic and social inequalities; corporate social responsibility (CSR); public policies.

Transitions: adaptive management of transitions; transition pathways in territories; methods for studying transitions; role of technological or social innovations in transitions.

Responses and management: multi-stakeholder approaches and actor networks; dynamic scenarios coupling socio-economics - resources and ecosystem services; nature-based solutions (NBS); adaptation and mitigation in the face of climate change; public regulations (standards, regulations, incentives, education).

Research approaches: social sciences; life cycle analysis (LCA); co-construction; participatory research; knowledge exploitation; living labs; integrated modeling and scenario building; interdisciplinarity; transdisciplinarity.

Related ERC code.s : PE08, PE10, LS07, LS08, LS09, SH01, SH02, SH03

Related SDG: all 17 SDG

One Health

Theme H.02: Contaminants, ecosystems and health

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The scientific scope of this research theme covers in particular pluri-, inter- and transdisciplinary approaches, which contribute to expand knowledge on the characterisation, fate and dynamic of physical, chemical or biological contaminants contributing to the exposome, as well as their effects on human (including physiopathological aspects), animal and plant health, as well as on ecosystems, in line with the "One Health" and "Eco Health" concepts. Projects are expected to particularly include the following:

- characterisation of the exposome (including cocktail of contaminants, individual and collective behaviours and interactions between different kinds of stresses in humans, animals and plants) ;
- contaminants, their fate and dynamic, environmental metrology and biological samples, including bioindicators and biomarkers;
- the effects and activation mechanisms of contaminants on living organisms, ecosystems and human health;
- the eco-dynamics of contaminants, their interactions and their trans- and multi-generational impacts;
- biological determinants of the effects of contaminants and exposures;
- adaptive and evolutionary mechanisms in exposed organisms;
- development of methodological approaches for the identification of emerging hazards and risks;

- combined risks and their impacts, particularly complex pollution, to investigate their reduction and remediation including social, economic and political dynamics;
- the evaluation of new tools for the governance of risks linked to contamination, in taking the populations' perceptions into account.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : « One Health »; « Eco Health »; adaptability; allergen; biocides; biodiversity; bioindicators; biomarkers; legal and regulatory frameworks; contaminants of emerging interest; mixture of contaminants; chemical contaminants; physical contaminants (ex: noise, radiations); biological contaminants (pathogens); controversies; eco-dynamics; health ecology; ecosystems; ecotoxicology; environment; epidemiology; epigenetics; exposome; drugs; veterinary medicine; metals; metrology; microbiome; micro- and nanoplastics; modelling; nanomaterials; Per- and polyfluoroalkyl substances (PFAS) ; organometallics; rare earth elements; perception by society; endocrine disruptors; pathophysiology linked to contaminants ; pesticides; mineral pollutants; persistent organic pollutants; persistent and mobile pollutants ; animal health (including pollinators); human health; plant health; strategies of economic actors; environmental toxicology; toxins; metabolites.

Related ERC code.s : LS02, LS04, LS06, LS07, LS08, LS09, PE04, PE10, SH03, SH07

Related SDG: 2; 3; 6; 9; 11; 14 and 15

Theme H.03: Infectious diseases and environment

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This theme concerns pathogens, emerging and re-emerging infectious diseases and/or adaptations and resistance to antimicrobials in relation to the environment. The projects submitted will be based on integrated, multi- and interdisciplinary approaches combining disciplines from the ecological and environmental sciences, biology and health, social sciences and humanities.

This research theme covers the following topics:

- all human, animal and plant pathogens, irrespective of their nature (bacteria, viruses, parasites, fungi, algae and non-conventional agents), considering in particular their biology and ecology ;
- the ways in which pathogens spread (including in water, air, soil, etc.); the processes of evolution and adaptation to environmental changes of pathogens and their hosts and vectors; epidemic consequences of infectious diseases linked to changes in environmental niches; the genetic and non-genetic determinants of transmission; crossing the species barrier;
- the study of the long-term consequences of pathogen transmission on human and animal health;
- the mechanisms of emergence of infectious diseases (human, plant or animal, including zoonoses) in relation to environmental and anthropic factors (behaviour, education, social status, etc.) ;

- methods of control, surveillance and prevention, identification of populations and areas at risk, limitation of pathogen spread and of preparation for epidemic or even pandemic risk (including standardized sampling and sampling procedures as well as the development of tools for diagnosis, monitoring and management of drug resources, etc...);
- the modelling of emergence, dissemination, exposure or elimination parameters, retrospective analyses as well as the constitution of databases that can help define indicators for a predictive approach to the evolution of epidemics as part of health monitoring;
- the development and application of massive data analysis methods, including artificial intelligence, in the context of emerging or re-emerging infectious diseases;
- resistance to antimicrobial, antiparasitic, antifungal, insecticide and biocide treatments and their dynamics of emergence and diffusion;
- the exploration of new diagnostic, preventive and therapeutic strategies (new targets, new molecules, etc.);
- the analysis of the social and economic characteristics of epidemic management systems;
- the impact of individual and collective behaviour and practices on transmission;
- the integration of the health care system and national monitoring and prediction tools with international tools and mechanisms;
- the organization and resilience of human and animal health care systems facing the risks of emerging and re-emerging infectious diseases;
- the role of civil society and community organizations, both in the surveillance and the detection of cases, as well as in the referral to health systems.

Basic research on animal pathogens (zoonotic or not) is supported in this theme.

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : One Health or "Eco-Health" approaches; database; conditions for prevention and management of emerging diseases; determinants of infectious diseases (biological, medical, environmental, social, etc.); pathophysiology of infections; epidemics; exposome/infections; wildlife; modelling; artificial intelligence; niches; pandemics; emerging and re-emerging pathogens; prions; persistence; prediction; management; reservoirs; antimicrobial resistance; risks; global health; transfer and species barrier; vectors; virulence; zoonoses; climate.

Related ERC code.s : LS01, LS02, LS06, LS07, LS08, PE06, PE10, SH02, SH03

Related SDG: 1, 3, 4, 9, 10, 13, 14, 15, 16 and 17

Theme H.04: Public health, health and societies

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This theme relates to research in public health. The aim is to:

- describe, analyse and understand the various factors and determinants affecting the health of populations and health inequalities, whether socio-economic, behavioural, environmental, demographic, geographical, organisational, linked to life trajectories or to public policies;
- contribute to the understanding of disease mechanisms through approaches integrating population data and biomarkers;
- propose work relating to the watchfulness, anticipation, prevention and preparation, in ordinary or crisis contexts (epidemic, conflict, etc.),
- encourage cross-disciplinary analysis and approaches with veterinary public health stakeholders regarding prevention (biosecurity, vaccination) and crisis management, particularly in population-based approaches (modelling, surveillance, etc.),
- carry out, propose or validate intervention studies, as well as preventive actions and health promotion, from the neighbourhood level (community health) to the global level;
- enable the emergence of new approaches in health epidemiology;
- carry out health, economic and societal impact studies of preventive measures aimed at improving health or at adapting to, or preventing, societal or environmental threats, such as epidemics or climate change, and in general to evaluate public policies;
- propose work on the organisation of the health system (effectiveness, efficiency, access, equity, balance between prevention and therapy, etc.) and analyses of the consequences of technological and medical innovations on the health system (digital health, genomic, predictive, personalised medicine, etc.),
- analyse the interactions between the various actors, institutions or groups which contribute to the management of public health issues at different levels of the territory;
- analyse the way in which health systems and society integrate the knowledge acquired on the exposome, the issues linked to the idea of global health, climate change and biodiversity loss;
- support innovative research projects using existing cohorts.

The consideration of multiple health-related determinants and factors, their interactions and their combined effects is encouraged. All dimensions and fields of health, as well as questions regarding quality of life, autonomy and disability, will be considered, throughout life and in the different areas of life (residential, school, professional, leisure activities, etc.). Particular attention will be paid to conceptual and methodological research aiming to analyse the effects of health determinants and factors. The research may also take into account the understanding of health determinants, needs and health inequalities, according to vulnerabilities (gender, belonging to one or more minorities, dependents, etc.).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : access to care and operation of the health system; big data in health; cohorts; individual and collective behaviour; knowledge of populations at risk; screening, early diagnosis; determinants of social inequalities in health and vulnerability; case-control studies; evaluation of public policies; experiences of users of the health system; exploitation of existing health data; risk management, surveillance, prevention and protection; chronic diseases; epidemiological and

biostatistical methodology; health norms; performance and financing of health care provision; policies, organisations, regulations and actors; populations; health practices; health promotion; relationship to risk and perception of risk; relations between professionals and users; health; veterinary public health.

Related ERC code.s : LS02, LS07, SH01, SH02, SH03, SH04, SH06

Related SDG : 1, 3, 4, 5, 10, 12, 16 and 17

Ecological and Environmental Transition

This cross-cutting field lies at the interface of environmental sciences, humanities and social sciences, and material sciences. It is composed of three research themes that contribute to the ecological and environmental transition with a clear objective of sustainability. Projects of an inter- and trans-disciplinary nature are mainly expected.

Theme H.05: Methodologies, instrumentations, sensors and solutions for the ecological transition

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This research area covers research projects on innovative technologies and methodologies for supporting ecological transitions. The following points will for instance be considered:

- Methods, tools and sensors for 1) environmental observation and monitoring (smart monitoring, forcing monitoring, participatory science and crowd sourcing), and for 2) operational services for diagnosis, warning and environmental crisis management (including natural hazards). The nature of expected sensors, tools and methods is wide and varied (sentinels, biosensors, biosourcing, etc.);
- High-tech/high precision instruments for documenting the status and dynamics of various environmental compartments;
- Advanced data acquisition and analysis techniques, including sensor metrology for characterizing the ecological footprint and the development of one or more integrative footprint indicators;
- Sustainable environmental remediation processes (water, air, soil, subsoil) using innovative approaches (ecological engineering, hybrid approaches, nature-based solutions, etc.);
- Methods or methodologies enabling rational quantification or reduction of the environmental impact of production processes (energy sobriety, wastewater reuse, etc.). This includes methods such as coupling economic and environmental models, and automating phenology methods or phenotyping;
- Measurement methods associated with the “day-to-day” evolution of the environment, in order to detect change at a short time-scale (studies on ordinary risks);
- Methods for characterizing natural, cultivated or bred biodiversity, and in particular for automating the description of the functional traits of living organisms, for example through phenotyping approaches.

The aim may also be to improve instrument sensitivity (e.g. for early detection).

Submitted proposals must demonstrate the environmental impact of the proposed processes or sensors.

Other sensor-related projects have to be submitted under [theme H.11 Sensors, imagers and instrumentation](#). Projects involving the development of autonomous sample-collecting vehicles should also be submitted under [theme E.04 Interaction, robotics, immersive worlds](#).

Related key words:

Research objects: natural hazards and cascade effects; measurement of GHGs and air pollutants; phenotyping; atmosphere, water, soil and subsoil pollution; air quality; behavior of socio-economic agents; reduction in consumption of inputs (water, solvents, etc.); pollutant source reduction; wastewater reuse; GHG sequestration; energy-saving processes; Per- and polyfluoroalkyl substances; pollutant, effluent and waste treatment.

Research approaches: environmental biotechnology; sensors/biosensors for the environment; environmental chemistry; coupling of economic and environmental models; development of in situ measurements; civil engineering; process engineering; ecological engineering (incl. phytoremediation and bio-remediation); ecological engineering; living labs; metrology; microfluidics; long-term and/or high-frequency environmental monitoring; innovative modeling and optimization tools; sensor networks; nature-based solutions; sustainable remediation technologies; remote sensing.

Related ERC code.s : LS08, LS09, PE02, PE04, PE05, PE06, PE07, PE08, PE10, PE11, SHS07

Related SDG : 6, 7, 9, 11, 12, 13, 14 and 15

Theme H.06: Dynamics of natural and productive socio-ecosystems

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This theme concerns fundamental or applied research projects aimed at understanding the dynamics of socio-ecosystems, proposing innovations to improve their contribution to sustainable development (from a social, economic and environmental point of view), and in so doing, contributing to the development of trajectories and scenarios to support ecological, climatic, energy, food and digital transitions. The proposed approaches will take advantage of an interdisciplinary approach to studying these systems, focusing on both their natural and social components. Projects will address the following themes in particular:

- Characterization of socio-ecosystems and their dynamics;
- Ecosystem services or contributions from nature to humans (NCP) associated with ecosystems (cultural, economic, social, environmental services);
- Characterization of natural and anthropogenic pressures on socio-ecosystems;
- Understanding how socio-ecosystems function, why some of their objectives are not being met, and identifying solutions to define adaptive management strategies for these socio-ecosystems, whether or not they are productive (e.g. restoration, conservation) or anthropised, marine or continental (or mixed), at different spatial, temporal and organisational scales (from the individual to populations and territories);
- Redesign (using experimentation, modelling, surveys, etc.) of productive socio-ecosystems (agricultural, aquaculture, fisheries or forest ecosystems in particular) on the scientific basis of agroecology, at relevant spatial, temporal and/or organizational scales;
- All the human mechanisms, both individual and collective, involved in the functioning of socio-ecosystems, studied by economics, legal science, sociology, political science, anthropology, history, geography, psychology, philosophy, etc.;

- The notion of positive “feedbacks” (amplification of a change) or negative (attenuation of a trajectory, e.g. forest regeneration to absorb CO₂);
- Issues of governance and environmental justice aimed at more sustainable management of anthropized ecosystems;
- Interfaces and interactions between productive or exploited ecosystems and their environment;
- Experimentation with transitions, coupled with analysis of the economic, social and environmental dynamics of socio-ecosystems.

Related key words : agriculture; agroecology; agronomy; aquaculture; animal welfare; biocontrol; biodiversity; biomonitoring; agricultural policies and/or agricultural systems design; nature's contributions to people (NCP) ; biogeochemical cycles; environmental law; functional ecology; ecophysiology; forestry; genetics; geodiversity; geography; animal and plant health management; soil management; integrated management; halieutic; microbiology; modelling; landscape; fisheries; public policy; pollination; resistance, resilience and adaptation to global environmental changes; conflicts; animal science; economics and management science; political science; plant science; ecosystem service; sociology; crop systems; livestock systems; territory; zootechnics.

Related ERC code.s : LS02, LS08, LS09, PE06, PE08, PE10, SH01, SH02, SH03, SH07

Related SDG: 1, 2, 8, 12, 13, 14 et 15

Theme H.07: Bioeconomy: societal transition and associated technologies

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The bioeconomy refers to the economy of biological resources coming from biomass and its derivatives⁵⁹, with the aim of supplying materials and molecules, and mitigating the effects of climate change while ensuring food and energy security and the well-being of populations. This includes exploited biological resources (crops, livestock, forests), as well as co-products from continental and marine systems.

This research theme supports fundamental and applied research projects concerning the bioeconomy, in particular the cascading uses of biomass, the transformation, fractionation and purification processes for biomass components, the closing of cycles and/or their impacts, as well as the interplay of players, regulatory mechanisms and innovation processes in value chains.

It calls for research into technologies and innovations in the bioeconomy from disciplines such as chemistry, biochemistry and materials and process sciences. It will also support research in the humanities and social sciences that analyses the anthropological, sociological, economic, political, legal and territorial (e.g. in the South or overseas) dimensions of the transition to a bio-based economy. Interdisciplinary, cross-disciplinary and systemic approaches to the challenges of the bioeconomy, as well as to the methods and technologies involved in transforming biomass for different uses, are expected.

The scope of this theme covers topics such as:

- biomass production and the sustainable management of bioresources, whatever their origin,

⁵⁹ Biomass is the biodegradable fraction of products, waste and residues of biological origin from agriculture, including plant and animal substances, forestry and related industries, including fishing and aquaculture, as well as the biodegradable fraction of waste, in particular industrial waste and household and similar waste when of biological origin. (Article L. 211-2 of the Energy Code)

- land-use conflicts, cooperation and competition between players in the sectors and regions involved in mobilisation, market equilibrium models relating to uses, taking account of the effects of regulations, economies of scale, impacts on the labour market, etc;
- the pre-treatment and transformation of bioresources by various processes and their coupling (biotechnology, chemistry, catalysis, biocatalysis, associated processes), particularly in an integrated and systemic approach enabling optimisation of the various flows involved (biorefinery concept);
- eco-design and shaping of non-energy bio-based materials and molecules;
- flow modelling and scenarios (looping of material, water, energy and monetary cycles), at different scales, particularly at local level;
- supporting and deploying industries in the light of environmental, economic, legal and social issues, as well as technological innovation processes, the perceptions and controversies they generate, and the ethical questions raised;
- the design and assessment of public policies relating to the bioeconomy, and in particular how these policies relate to different levels.

Projects dealing exclusively with food issues should be submitted under [Theme A.04 Food and food systems](#), and projects dealing specifically with ways of converting biomass into energy carriers and fuels (biofuels, biogas, etc.) should be submitted under [theme H.09 Sustainable, clean, safe and efficient energy](#).

Related key words :

Ressources et territoires : land use and conflicts of use; terrestrial and marine biomass (production, quality, availability, management, sustainability of the sector); waste, co-products – by-products, etc. from biomass or its processing; governance; identification of new bioresources.

Technologies de transformation : biorefineries; biotechnologies; sustainable chemistry; co-products; metabolic engineering; microorganisms; modelling and associated processes; molecules; platforms; new technologies; bio-based polymers; biological, thermochemical, and/or catalytic biomass conversion processes; synthetic biology; bio-based industrial products (including those related to paper).

Approches conceptuelles : life cycle analysis; multi-criteria analysis; behavioural analysis; systems approaches; risk-benefit approaches; value chain; life cycle; environmental law; environmental social sciences; modelling of impacts (economic, environmental, including societal GHGs) and feedback loops; metabolic approaches such as MFA (material flow analysis), IAM (integrated modelling and assessment), modelling of complex systems, indicators; logistics modelling and optimization; public policies; companies; analysis of actor networks; social representations and realities; scenario planning and foresight; ecosystem services.

Related ERC code.s : LS02, LS08, LS09, PE04, PE05, PE08, SH01, SH02, SH03, SH07

Related SDG : 7, 8, 9, 12, 13, 14 and 15

Energy transition

The 2026 Work Programme of the ANR and its generic call includes two scientific themes aimed at supporting research in the field of energy. Complementary in their positioning in terms of expected levels of technological maturity, these two themes aim to contribute to the energy transition challenges set by the law of August 18, 2015.

Theme H.08: Basic energy science

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The "basic energy science" theme seeks to support upstream research, to explore new ideas and methods and to study breakthrough concepts. With long-term application perspectives, in particular beyond a 15-year horizon, the aim of this theme is to mobilise and transpose fundamental knowledge, methods and tools from the disciplines of matter, engineering and digital sciences to the field of energy, and to encourage research projects bringing together skills from a wide range of scientific communities, some of which do not necessarily focus on energy at present.

The following subjects can be addressed. The list is not exhaustive.

Innovative materials & environments: understanding, development and advanced characterisation:

- innovative materials and processes for energy: understanding of phenomena and behaviours related to microscopic or macroscopic physical, chemical or physico-chemical microscopic or macroscopic properties of functional materials or surfaces (transport/transfer/storage of heat and/or matter, optics, etc.), substitution of critical materials, activation of chemical reactions, interfacial phenomena, nano-structuring (surface, interface, volume), bio-inspired or geo-inspired processes, complex and reactive assemblies, etc. ,
- advanced characterizations for energy processes: innovative experimental methods and instrumentation (spatial and temporal multi-scales) for complex systems, multi-physical couplings, multi-scale in-operando characterisations, methods for extrapolation of data or measurements over prolonged periods, etc.

Multi-scale and multi-physical modelling and simulations of energy systems:

- modelling/simulation-assisted design: modelling and simulation (including predictive) from the atomic scale to molecules, materials, media, interfaces and processes and devices (quantum, thermodynamic or kinetic methods, up-scaling, machine-learning, data@mining, artificial intelligence, etc.) aimed at discovering new materials, components or devices for energy, multi-scale simulation of functional properties, ageing mechanisms, corrosion, etc.,
- multi-scale simulations of mechanisms, reactions, processes, devices or systems: multiphase and/or turbulent and/or reactive flows, fluid (reactive) - material interactions, ageing, self-healing systems, modelling of agile or versatile systems and processes, methodological approaches for modelling complex systems, including the assembly of several systems.

Given the upstream and exploratory nature of the expected research, the projects must clearly specify which problems they propose to solve, in relation to an application in the energy field, without it being necessary to provide a quantitative analysis of the impact on the energy field.

Finally, even if the work expected in this theme is still at a very early stage in the technology development chain, it will still have to consider factors that could limit or even prevent these developments in the future (such as, for example, avoiding the use of materials that are too rare or production processes that cannot be industrialised).

Related key words : sustainable materials; nanostructuring; bio-inspiration; geo-inspiration; interfacial processes; self-healing systems; chemical reactivity; catalysts (electrocatalysts, photocatalysts); energy conversion and transfers; thermal; multi-scale approaches (spatial,

temporal); in-operando; upscaling; aging; mathematics and digital sciences for energy; system models; metrology and instrumentation.

Related ERC code.s : LS09, PE01, PE02, PE03, PE04, PE05, PE06, PE07, PE08, PE11

Related SDG: 7, 9, 12 et 13

Theme H.09: Sustainable, clean, safe and efficient energy

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The objective of this scientific theme is to accelerate research aimed at improving energy technologies (in a medium-term perspective) on the one hand, and, on the other hand, to support research projects involving social sciences and humanities, in the diversity of their disciplines, either in cooperation with other disciplines or in projects specific to social sciences and humanities. The submission of projects with highly interdisciplinary approaches is also encouraged.

Projects on this theme will have to present the extent to which the expected results would increase knowledge, in the perspective of improving performance or of competing with or of complementing existing or developing technologies or processes, while taking into account life cycle issues. They will also have to comply to the SDG goals (resource saving, eco-design, responsible consumption and production, reduction of inequalities, etc.). The presence of these elements will be considered when assessing the projects.

The targeted fields are:

- capture of renewable energies (solar, geothermal, wind, marine, etc.),
- energy harvesting, waste energy,
- circular energy, energy recycling: use of biomass (including waste), recycled products as a resource, recycling of heat in processes, recycling of materials that can be used as a base for energy carriers (including CO₂),
- nuclear power generation: closing the fuel cycle, recovering and recycling critical materials, substituting materials, reducing inventories used and waste produced;
- energy storage (mechanical, chemical, electrochemical, thermal, etc.),
- hydrogen energy: production without carbon emissions, storage, transport and distribution in gas or dedicated networks, fuel cells,
- energy grids, including multi-sources, multi-vectors: power electronics, dynamic, smart energy management, grid-storage interactions,
- electrical engineering, power electronics, power transmission, actuators, converters and electrical machines,
- sustainable uses of the underground from an energy perspective, including massive temporary energy storage with low environmental impact, natural hydrogen,
- energy-efficient industrial equipment and processes (including intensified processes, etc.);
- CO₂ capture and storage,
- production of synthetic hydrocarbons (possibly coupled with platform molecules) from CO₂, N₂ (e.g. ammonia production) or recycled products,

- bioenergy (biofuels, biogas, etc.) obtained by biological, enzymatic and/or chemical, thermochemical means from biomass, with the development of (bio)catalysts and related processes,
- energy efficiency and the reduction of emissions from transport vehicles (combustion, hybridisation, electrification, global optimization of energy on board, etc.),
- energy in digital technologies: components for energy efficiency, reduction/optimisation of system and network consumption,
- approaches to energy transition by social sciences and humanities, which may be interdisciplinary or intersectoral: social, economic, legal, technical, territorial and environmental justice issues,
- analysis of the behaviour of private players (consumers, companies...) and groups, including the challenges of energy sobriety and its dynamic of implementation,
- analysis of the socio-technical and economic conditions for the development of the various energy sectors and the strategic choices employed,
- energy policies and in particular their links with climate mitigation and adaptation objectives (international comparisons, processes for developing low-carbon and carbon-neutral scenarios, new energy representations and practices).

Interdisciplinary approaches to the systemic challenges of energy transition, in relation with other dimensions of global transitions (ecological, health, digital, societal), are strongly encouraged. If appropriate, the meaning of "interdisciplinary focus" should be defined with details of how this is to be implemented and its expected contributions in scientific terms (new approaches, methodologies, results) or impacts.

While the digital sciences, and in particular artificial intelligence, are very welcome in this area as tools for solving problems and proposing new solutions, projects will need to argue clearly how these tools will enable us to do better than what already exists, and set out the types of AI, algorithms and databases used.

PRCE projects are well suited for this theme, to take into account the applications for the research proposed and their possible translation into innovative solutions.

Related key words : circular energy economy; renewable energies; wind; marine energies; geothermal energy; hydroelectricity; solar thermal energy; solar photovoltaic energy; solar fuels; energy harvesting; hydrogen energy; electrolysis; fuel cells; power-to-X; energy storage; electrochemical storage; batteries; supercapacitors; electrical engineering (power electronics, cables, etc.); smart energy networks; energy efficiency of digital technologies; thermal and thermodynamic systems; energy-efficient industrial processes; turbines; engines; climate equipment; heating; refrigeration; energy-efficient and greenhouse gas emission-efficient transport vehicles; CO₂ capture/transport/storage; bio-energies; bio-fuels; bio-combustibles; synthetic fuels; nuclear energy production; energy uses of the subsoil; renewable or recovered heat; techno-economic approaches; life cycle analysis; multi-criteria analysis; energy dependence; cross-border operations; network infrastructures; energy markets and policy; energy forecasting; behaviours; demand management; energy insecurity, security and energy risk; sobriety.

Related ERC code.s : LS09, PE01, PE02, PE03, PE04, PE05, PE06, PE07, PE08, PE11, SH01, SH02, SH03, SH04, SH06, SH07

Technological transformation

This cross-cutting field is composed of four themes, whose main common point is to contribute to the development of innovative technologies for various applications, relying particularly on materials science and engineering, and developments in digital science (simulation/modeling, big data processing, artificial intelligence, etc.).

Two themes are dedicated to specific applications: for the medical sector, [theme H.13 Healthcare technologies](#), and for the digital society, [theme H.12 Micro and nanotechnologies for electronics, photonics, and digital technology](#).

It also includes a theme dedicated to innovative developments in the field of sensors, imaging, and instrumentation, regardless of the application (biology, physics, astrophysics, environmental sciences, etc.), as well as a theme aimed at supporting more generic research in nanosciences and nanomaterials, which focuses on the materials properties or objects induced by the nanometric dimension or on specific phenomena related to the nano-scale, for potential future technological developments.

Theme H.10: Nanostructures, nano-objects and nanomaterials with (multi)functional properties

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This theme welcomes proposals addressing the contributions of the nanometric dimension in the design, production and study of materials. The presence of specific nanometric scale objects or phenomena in the final outcome of the project should be the main criterion prompting submission of the proposal on this theme. The simple association of objects of nanometric dimensions with known properties, without contributing any major new elements of understanding or without bringing new properties to light, does not come under this heading.

Projects may address one or more of the following five issues:

- new properties, whether spatial or temporal, resulting from reduction to the nanometric scale;
- synthesis, fabrication, growth mechanisms and characterisation of nano-objects, functional nanomaterials, nanostructures and nano-object assemblies;
- management and texturing of interfaces and surfaces at the nanometric scale, functionalization and interactions;
- nanostructures, nano-object assemblies and interfacing, multi-scale coupling;
- use of numerical and artificial intelligence-assisted approaches to develop and study the properties of new nanomaterials or nanometric objects.

The presentation of the projects should highlight their implications in terms of major societal objectives, taking particular account of the issues of circularity, sustainability and end-of-cycle management.

In the field of sensors, only projects mainly dedicated to a nanofabrication or nanostructuring stage should be submitted in this H10 theme. Projects concerning the study of the contribution of a nanometric dimension to the field of sensors (to improve performance, for example), as well as

instrumentation dedicated to nanomaterials, should be submitted under [theme H.11 Sensors, imagers and instrumentation](#).

Projects aimed at designing or integrating devices for nano- or micro-electronics or photonics technologies should be submitted under [H.12 Micro and nanotechnologies for electronics, photonics and digital technology](#).

When applied to the field of health or biology, projects dealing with synthesis submitted in this H.10 area should focus on the synthesis and physico-chemical study of families of innovative and preferably multifunctional nano-objects. Projects focusing on studies of therapeutic, pharmacological or biological properties, without demonstrating a high degree of originality in terms of nanostructuring and multifunctionality of the systems, should be submitted in the corresponding area of the 'Life Sciences' domain. In addition, in vivo studies and ex vivo tests carried out on samples taken from sacrificed animals (organs, cells or tissues) are excluded from this H.10 theme.

Related key words : nano-objects (nanoparticles, nanowires, nanotubes, nanocrystals, etc.); 1D, 2D or 3D nanomaterials; nanoporous materials; (multi-)functional nanomaterials, hybrids, phase-change nanomaterials, nanomaterials for THz; synthesis processes and production methods (nanochemistry, assembly, bottom-up, top-down, self-assembly, growth mechanisms, additive methods, confined environments, shaping, green technologies, sustainability, etc.); formation mechanism and stability study; surface or core functionalization; reactivity control; property control (mechanical, electronic, optical, chiral, thermal, magnetic, catalytic, phononic, topological, etc.); synergy of properties (opto-electronic, photomagnetic, strong radiation-matter coupling, etc.); experimental studies, numerical and artificial intelligence-assisted approaches.

Related ERC code.s : LS07, PE03, PE04, PE05

Related SDG: 3 and 9

Theme H.11: Sensors, imagers and instrumentation

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This theme is intended to welcome projects whose main objective is to develop new sensors or innovative characterisation or imaging instrumentation, whatever the spatial scale under consideration. They must demonstrate clear progress in relation to the state of the art.

Fields may include condensed matter physics and engineering sciences, chemistry and biophysics. However, the field of medical imaging is excluded, and projects in this area must be submitted under the [H.13 Healthcare Technologies theme](#).

The theme comprises three main topics:

- the development of measurement and instrumentation methods for in situ characterisation and on-line operando monitoring, in order to characterise materials, devices or systems, including biological systems;
- characterisation at the nanometric scale and characterisation of nanomaterials: development of instrumentation, methodological approaches and protocols dedicated to characterisation at the nanometric scale, to meet the needs of observation and detection metrology, including in complex media, whether fluid or solid, diluted or not;

- innovation, particularly breakthrough innovation, in the field of sensors, imagers and detectors in order to improve their performance (sensitivity, resolution, data acquisition and management and optimisation of their processing, etc.). Proposals should extend beyond the simple manufacture of materials and the characterisation of their sensitivity to a parameter (physical, chemical, biological, etc.) and envisage integration for instrumentation purposes.

Projects aimed at applications in the fields of physics, biology, health, the sciences of the Universe and the Earth or the environment may be proposed in this theme, provided that they address as a priority the problems of the experimental and instrumental analysis chain. However, projects involving the adaptation and use of existing sensors rather than innovative developments involving the measuring instrument itself should be directed towards the corresponding thematic areas.

Projects that primarily fall under the generic topic “Quantum Technologies” are to be submitted under the corresponding [E.06 theme](#).

Finally, while digital and artificial intelligence-assisted approaches are welcome, they must be integrated into the development of the measurement chain. Projects strictly dedicated to the development of software and algorithmic methods do not come under this theme.

Related key words : sensors (plasmonic, thermal, mechanical, magnetic, chemical, electrochemical, biochemical, biological, optical, piezoelectric, inertial, acoustic, terahertz, etc.); in situ/in operando characterization; monitoring of chemical and biological reactivity; online control; imagers (optical, X-ray, terahertz, spintronic, etc.); wave-matter interactions (nanophotonics, photodetection); microscopies (optical, electronic, acoustic, near field, terahertz, ionic, correlative, etc.); spectroscopies; measurements of physical properties (mechanical, optical, thermal, electrical, magnetic, etc.); metrology; micro- and nanofluidics; advanced data processing techniques; multimodal techniques; tomography; non-destructive testing; development of measurement and characterization methods.

Related ERC code.s : major PE02, PE03, PE04, PE05, PE07, PE08, other LS01

Related SDG: 9

Theme H.12: Micro and nanotechnologies for electronics, photonics, and digital technology

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This theme aims to support projects focusing on key technologies in electronics and photonics, the integration of devices into systems, or the exploration of new paradigms for next-generation components ("more Moore / more than Moore, beyond CMOS"), as well as system-architecture design. Depending on the proposed degree of disruption or the level of risk assumed, projects should seek to overcome clearly identified scientific and technological challenges and will seek to demonstrate quantifiable performance improvements or breakthroughs compared to existing knowledge.

Instrumental development and metrology projects of interest to electronics and photonics can be submitted to this theme. For example, projects targeting theoretical or numerical approaches (simulation and/or design of components, circuits, materials, processes, complex systems), as well as generic methodologies (design, testing, metrology), or the study of reliability, advanced characterization of materials, or the performance of nanodevices/elementary components,

naturally fall within this spectrum. This also includes projects aimed at developing electronic or photonic devices and components based on nano-objects or functional nanomaterials.

At the relevant dimensional scales (micro and nano), from materials to systems-on-chip, the research focus covers the following three areas:

- Materials for components and devices: design, development, etc.;
- Elementary components and devices: characterization, integration, application, etc.;
- Circuits, architectures, and systems: design, simulation, testing, etc.

Project presentations may highlight their implications with regard to major societal objectives, particularly by taking sustainability issues into account. Projects will position themselves in terms of their impact on the technological transition, for example, by referring to ADEME scenarios (www.transitions2050.ademe.fr <https://www.ademe.fr/les-futurs-en-transition/les-scenarios/>), to the Agenda 2030 (<https://www.agenda-2030.fr/>) or on the question of technological sovereignty (France 2030, European Chips Act, etc.).

Projects involving quantum technologies whose objective is to develop technological building blocks and/or generic components that are also relevant to classical communication systems, and if these systems are clearly identified, may be submitted to this research area. Other projects should be submitted to research area [E.06 Quantum Sciences and Technologies](#).

Projects involving sensors, imaging, and instrumentation targeting clearly identified applications in information processing and communication that are prioritized over potential applications in other fields may be submitted to this research area. Other projects should be submitted to research area [H.11 Sensors, Imagers, and Instrumentation](#).

Related key words : integrated circuits and systems (including for RF6G communication and beyond); components (alternative, vertical, neuromorphic, computing accelerators, etc.); millimeter components; passive components; components for Artificial Intelligence; design and development of sustainable materials (toxicity, abundance, life cycle, technology optimization); RF devices; electronics (organic, flexible); power electronics; (micro) screens; optical fibers and power sources; waveguides; imaging and THz technologies for ICT; imagers and sensors for ICT; 3D integration; heterogeneous integration; dense interconnections; interfacing and coupling (with optical, electronic, spintronic, phononic properties, etc.); instrumentation; memories; metamaterials; metasurfaces; micro and nano-electronics; micro and nano-photonics; integrated and (multi)functional photonics; micro-nano technologies for sensors; new architecture paradigms; packaging; photodetectors; active photonics; plasmonics; technological processes; neural networks; semiconductors; sources (UV, visible, telecom, infrared, THz); simulation (materials, components, circuits); spintronics; system in package; modular systems such as Chiplet; systems on chip; non-linear technology for photonic and electronic components; resilient/frugal technology.

Related ERC code.s : PE02, PE03, PE05, PE07

Related SDG: 9

Theme H.13: Healthcare technologies

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This research theme supports interdisciplinary research in the fields of engineering and systems sciences applied to new concepts, tools and health technology methods in the following areas:

- instrumentation, detection systems and anatomical, functional, cellular and molecular imaging agents of medical interest and their integration in multiple systems;
- technologies associated with devices to improve the efficiency of screening, drug vectorisation, or bioproduction processes;
- the implementation of diagnostic and analytical systems (on-board sensors) and therapy in (or on) living organisms ;
- biomaterials not related to regenerative medicine ;
- surgical technologies including remote surgery, related materials and devices, implantable devices, functional replacement devices and prostheses: advances may target the reliability, biocompatibility and performance of these technologies, miniaturisation, remote operability and increased energy autonomy. The development of these technologies may include modelling, simulation or implementation ;
- technologies for digital health and in particular for measuring the exposome ;
- disability compensation and autonomy.

PRCE projects taking into account the applications of the proposed research and their possible development are suitable for this theme.

Tissue engineering and regenerative medicine projects fall under the specific [Theme C.11 : Biology and regenerative medicine](#).

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words: medical devices; biosensors and monitoring instruments; medical imaging; stimulation and modeling tools; signal and image processing; biomaterials/biomechanics; home automation; home equipment; disability; digital health; medical IT; bioprinting; exposome; bioprocessing.

Related ERC code.s : LS07, PE02, PE03, PE07

Related SDG: 3, 9 10 and12

Digital Transformation

Theme H.14: Interfaces: mathematics, digital sciences – biology, health

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This theme supports interdisciplinary research projects between two major scientific fields, namely mathematics and digital sciences on the one hand, and biology and health on the other hand. The aim is to strengthen the cross-fertilisation of these two fields in order to foster the emergence of new concepts, models or methods in mathematics and digital sciences with a view to accelerating research in the fields of life sciences and health. The impact of the projects will be

assessed in particular on the proposed methodological innovations and their validation through proof of concept.

The projects submitted may focus on the following:

- methods for the analysis, integration, modelling and visualisation of complex data (multimodal, multiscale, high-content) such as data from omics approaches (genomics, transcriptomics, proteomics, etc.), structural biology, cell and tissue microscopy, imaging or e-health;
- the modelling of biological and physiological processes at all scales from the molecule to the population, enabling the development of predictive approaches to the quantitative and qualitative behaviour of the systems studied, the numerical simulation of these models using scientific and high-performance computing and the related optimisation, as well as the methods for comparing them with experimental data, in particular data assimilation and automatic learning approaches;
- medical signal and image processing for the segmentation, extraction and characterization of the information they contain, as well as the fusion of multimodal, multiscale, morpho-functional information with the aim of deepening biological knowledge and/or developing new approaches of medical interest;
- immersive (virtual and augmented) visualisation and simulation of data and models;
- the development of methods for the collection, extraction, management, securing, matching and exploitation - aid in decision-making - of massive or heterogeneous data from a variety of sources ranging from omics biology to medico-administrative health data bases (National Health Data System) and health datawarehouses or any other source of personal health data for preclinical, clinical, population or epidemiological research, or as decision-making aid;

A co-funding request by DGOS (General Directorate for Healthcare Provision) may be made for translational research projects that include a partner health care facility (Translational Health Research Program, PRT-S).

Related key words : large-scale machine learning and artificial intelligence for life sciences; assistance in decision-making; algorithmics; predictive analysis; signal and image analysis and processing; big data in biology; biomathematics; bioinformatics; computational biology; bioproduction; e-health; medical information technology; digital twins; modelling of biological processes; emerging properties of biological systems; simulation in biology.

Related ERC code.s : LS01, LS02, LS03, LS05, LS07, PE01, PE06, PE07

Related SDG: 3 et 9

Theme H.15: Interfaces: mathematics, digital sciences – Humanities and social sciences

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This theme supports interdisciplinary or transdisciplinary research actions related to the two main fields: "Mathematics and Digital Sciences" and "Humanities and Social Sciences".

This theme concerns both the application of concepts, methods from mathematics, computer sciences and digital technologies in fields relevant for Humanities and Social Sciences (linguistics,

culture, education, economics, psychology, sociology, geography, anthropology, history, literature, art, etc.) and, conversely, the study by Humanities and Social Sciences of digital objects (infrastructures, social networks, algorithms, artificial intelligence, software, etc.) insofar as the cross-disciplinary study benefits both fields.

The projects may relate to digital humanities or computational humanities and social sciences as well as reflection on the challenges of digital objects, networks and devices as long as, by bringing disciplines into close and mutual interaction, they aim to achieve significant scientific spin-offs in both humanities and social sciences and digital sciences or mathematics. The targeted progress may be more significant in one of the two fields (humanities and social sciences or digital sciences or mathematics) provided that the projects mobilise concepts or tools from recent advances in the other field. Research proposals that simply mobilise digital engineering or are limited to impact studies are therefore excluded along with research involving two types of disjointed tasks. On the contrary, the selected projects will have to mobilise an upstream, interdisciplinary approach in terms of research questions asked and research methods employed. The projects will be supported by an interdisciplinary partnership, bringing together researchers in mathematics or digital science and technology, and in humanities and social sciences.

Related key words : digital arts; democracy and digital; immersive devices; digital ecosystem; education and digital; digital ethics and regulation; data mining and AI; history of mathematics and of digital sciences; digital humanities; cultural and creative industries; information and information manipulation; digital twins; ontologies and the semantic web; quality, openness and structuring of research data; automatic processing of natural languages; social uses and practices of digital technology; use and governance of data.

Related ERC code.s : PE01, PE06, PE07, SH01, SH02, SH03, SH04, SH05, SH06, SH07

Related SDG: 1, 4, 5, 8, 9, 10, 11, 16 and 17

Theme H.16: Interfaces: mathematics, digital sciences – Earth system sciences including climate, environment and biodiversity

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The theme aim of this area is to support research projects based on the development of new concepts and new mathematical, physical or numerical methods to improve understanding of the various components of the Earth system in the broadest sense, including Climate-Environment-Biodiversity. This encompasses all physical, chemical and biological processes, their interactions at different scales, and their main feedbacks, as well as their impacts.

The aim is to develop deterministic or stochastic modelling, theoretical analysis and numerical simulation of the evolution of these complex systems; to deepen the analysis and assimilation of multi-modal and multi-domain data from observation systems, experiments and numerical simulations; to design new models based on artificial intelligence (foundation models, etc.) as well as numerical twins associated with clearly identified scientific issues.

The expected project proposals should be innovative and interdisciplinary, addressing well-identified fundamental, applied or methodological issues, and incorporating theoretical analyses and methodologies to qualify and justify their results. The benefits and strategy for collaboration between the various disciplines must be clearly explained.

The submitted project proposals may, in particular, concern the following themes:

- Dynamics of coupled multi-scale systems (e.g. climate, solid earth-fluid envelope couplings, impacts of global change, anthropisation and urbanised environments, hazards and risks), which can exploit new artificial intelligence approaches and new high-performance computing and data analysis architectures;
- Monitoring and predictability of natural and/or man-made hazards considered in isolation or in interaction: telluric, climatic, environmental hazards, pollution, etc. ;
- Cross interactions between anthropogenic or environmental changes on the one hand, and populations, communities and ecosystems on the other hand, in order to identify and characterise resilience, adaptation or evolution phenomena;
- Characterisation, quantification and predictability of extreme events, including associated uncertainties, and their integration across the different sources and scales involved;
- Assimilation, robust probabilistic inference/inversion of multi-modal data associated with complex, high-dimensional model spaces, integrating artificial intelligence methods, for example.

Project proposals will be led by a partnership of researchers in mathematics, computer science, digital science and/or technology and researchers in Earth system and/or environmental sciences.

Related key words : data adaptation, assimilation and inversion; biodiversity; natural and anthropogenic environmental change; model-data coupling; extreme events; species, community and ecosystem dynamics; artificial intelligence; digital twins; monitoring and forecasting methods; climate models and their simulation; foundation models; deterministic and stochastic models; predictive models; quantification of uncertainties; model-based reinforcement; numerical simulation and scientific computing; coupled, multi-physical and multi-scale systems; earth system; statistical data processing and analysis.

Related ERC code.s : PE01, PE6, PE7, PE10, LS08, LS09, SH6, SH7

Related SDG: 6, 7, 11, 13, 14 et 15

Transformation of socio-technical systems

This cross-cutting field is composed of three themes that share several common points. First of all, each of these themes focuses on a major issue in the development of societies and living well together, whether in relation to the global challenge of security ([theme H.17](#)), the issues of sustainable development of cities, constructions, and transportation ([theme H.18](#)), or the evolution of productive systems for goods or services ([theme H.19](#)).

Another common feature is that these themes call on a very wide range of scientific disciplines to address these issues, ranging from materials science and engineering to humanities and social sciences, including mathematics, digital sciences, and, where appropriate, environmental or life sciences. Simultaneously, some of the identified issues in these themes call for multidisciplinary, interdisciplinary, and systemic approaches.

Finally, collaborative (or even participatory) research projects involving actors from the various fields addressed are welcome in these themes, particularly companies but also, depending on the subjects, civil society (NGOs...) and public actors (local authorities, law enforcement, public transport services...).

Theme H.17: Global security, resilience and crisis management, cybersecurity

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Research into the global security of societies requires the broadest possible collaboration between disciplines in order to gain a better understanding of the social and environmental phenomena - including the impacts of climate change - that are sources of threats and risks, to think ahead about how societies - faced with many uncertainties - will evolve and about the consequences of new practices, and to propose new technological (which may include digital technologies such as AI, blockchain, virtualisation, cloud computing, IoT, etc.) and/or organisational solutions in response.

In this perspective, this theme aims to host research projects responding to at least one of the following objectives:

- to characterise, prevent and respond to new forms of threats and risks, to assess vulnerabilities and their potential consequences on systems, and hence the risks to society and populations (protection of the nation's vital interests, resilience, logistics, treatment of consequences), and to contribute to their remediation;
- working on the prevention and protection of goods and people;
- developing the protection of infrastructures and networks as well as the protection of objects, data, content and software;
- combating hybrid threats, including disinformation (detection of content, methods and infrastructures used, response, etc.);
- managing crises and contributing to resilience;
- supporting decision-makers and analysing the instruments, including legal and economic instruments, involved in the exercise of people's rights and freedoms.

The theme is open to any fundamental or applied research, uni-disciplinary, multi-disciplinary or inter-disciplinary, leading to social, scientific or technological developments in terms of safety, security and cybersecurity.

Participatory research involving end-users (internal security forces, private security operators, municipal police, civil security, operators of vital importance or of establishments open to the public, local authorities, NGOs, etc.) is encouraged.

Proposals must be positioned with respect to six topics:

- the resilience of the nation and society, which includes risk identification, crisis management and remediation, regardless of origin: resilience of systems and networks, of territories and of the population. Securing supplies (through a stock policy, for example) is eligible in this context;
- combating terrorism and organised crime: analysis of the logic and mechanisms of action (violent radicalisation, for example) and research into new operational means of intervention;
- the security of society and its individuals, in the areas where they live or move, consider public action perspectives to deal with crime and trafficking, respond to the phenomena of urban violence, ensure events are held peacefully and monitor gatherings of a festive or democratic nature, etc.

- security and democracy, against a backdrop of ever-increasing demands for transparency, the reshaping of democratic balances, the need to respect individual and fundamental freedoms, greater protection for personal data, and the development of new uses brought about by the development of new technologies (social networks, artificial intelligence, digital identity, etc.).
- cybersecurity: coding and cryptography, formal methods for security, privacy protection, security of information systems, software and networks, security and multimedia data, security of hardware systems. All the components of cybersecurity need to be considered (prevention/anticipation/supervision/detection/reaction/remediation/governance);
- protection of critical infrastructure and societal resilience against physical and digital threats to sensitive sites, critical equipment and networks that guarantee the proper functioning of society; protection of public spaces and transports; surveillance of sovereign spaces.

Related key words : global security; national security; public and international policies; hybrid threats; disinformation; crisis management; personal assistance; security of public spaces; security of establishments and places open to the public, transport; surveillance of maritime, land and air spaces; protection of activities of vital importance; resilience of systems, organizations and institutions; business continuity (physical/digital, logistics flows and/or stocks, information flows, etc.); equipment of security forces; evidence management; fight against the Nuclear-Radiological-Biological-Chemical-Explosive (NRBC-E) threat; systems engineering for physical and digital protection; ethical and legal security by design; protection of freedoms; protection of personal data; sociology of organizations; social and cultural modeling; cybersecurity of networks, information systems, data, software, components, embedded systems and connected objects; post-quantum cryptography; cybersecurity of industrial systems and critical infrastructures; security of cloud computing and its uses; AI applications for cybersecurity, cybersecurity and auditability of AI models, understanding AI-enhanced cyberattacks; communications security; intrusion detection; vulnerability detection and mitigation; attack protection and combating cybercrime; human factors and cybersecurity; digital identity security.

Related ERC code.s : LS07, LS09, PE01, PE02, PE03, PE04, PE05, PE06, PE07, PE08, SH01, SH02, SH03, SH04, SH06, LS2

Related SDG: 9, 16 and 17

Theme H.18: Cities, buildings and construction, transport and mobility: transition to sustainability

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The research expected in this area should aim to explore the concepts and solutions through which urban territories—at all scales, from buildings to urban systems - transport, housing, and their users can address environmental challenges within a sustainable development perspective.

These research efforts should help to evaluate and improve the performance of buildings, transportation, and territories, and support the emergence of sustainable and resilient alternatives. This research must be conducted with a view to reducing pressures on the environment and adapting to future disruptive or incremental changes, including climate change, but also demographic or territorial transitions, for instance.

Particular attention is given to advances in digital science and technology to support and promote this transition, relying on modelling, data utilization, and the development of solutions that integrate digital tools.

Questions of governance and the development of public policies, legislation and new economic models, which will be involved in the management and transformation of urban systems, can also be integrated into the projects, by mobilising the relevant expertise in social sciences and humanities. The importance of behavioural change—whether from policymakers, technical services, economic actors, or citizen-users—especially in the context of disruptive scenarios, will also be the subject of specific efforts.

This will involve participating, in particular through the implementation of multi-, inter- or transdisciplinary, integrated approaches, in the development of a conceptual, methodological or technological offer, by providing, more specifically, the elements of knowledge and understanding necessary to analyse, measure, make diagnoses, help to design, build, rehabilitate or renew urban systems, intra- and extra-urban transport systems and the built environment, but also to analyse social practices and support their transformations. International comparisons are welcome.

Particular attention may be paid to systemic approaches, which enable the integration of societal, environmental, and technical processes and their understanding of their interactions, complexity, and dynamics.

In addition to the participation of commercial companies, the participation of stakeholders such as local authorities in projects is encouraged.

The scope of this theme covers the following three areas:

Sustainable and resilient urban environment and systems:

- resilience to catastrophic events (heat waves, pollution waves, epidemics, floods, earthquakes, fires, etc.);
- quality of the urban environment: noise, visual, and air pollution;
- rational and integrated use of urban soil and subsoil, redevelopment of brownfield sites, combating land take;
- integrated approach to energy in cities;
- urban climate, urban heat island;
- nature in the city, urban agriculture and associated ecosystem services;
- urban metabolism and circular economy;
- access to resources (water, energy, food), pooling of energy and material flows.
- industrial ecology and synergies between urban and industrial territories;

Sustainable construction:

- Low-impact and healthy urban blocks or neighbourhoods;
- Sustainable design, construction, management, and maintenance of buildings (new and old) and infrastructures;
- Renovation, particularly with regard to energy issues, of buildings and urban blocks;
- Urban engineering, networks and services: water, sanitation, lighting, waste, energy, etc.;

Transport and mobility:

- Transport-urban planning: integrated approaches to passenger transport/goods transport/buildings/energy/health, spatial mobility/connectivity substitution effects;
- Demand analysis and inclusivity (children, vulnerable people, teleworking);
- Active modes of transport, micro-mobility (electric or not), mobility and transport services adapted to user needs (school, work, goods, etc.), public transport, intermodality and multimodality, modal shifts;
- Resilience and safety of transport system (pedestrians, cyclists, vehicles and associated facilities);
- driving assistance, autonomous vehicles, intelligent and interconnected transport systems, with a view to sustainability.

Related key words : quality of the urban environment (air, water, soil, subsoil, landscapes, noise, pollution, etc.); rational and integrated use of the soil and urban subsoil; integrated approach to energy in the city; fight against artificialization; nature and ecosystem services in the city; urban metabolism; urban climate; vulnerabilities and resilience of socio-technical systems; buildings, blocks, neighborhoods, low-carbon and low environmental impact cities; energy and environmental renovation; civil engineering; construction; management and rehabilitation of existing heritage; infrastructure; urban engineering; port areas; sustainable mobility; soft mobility; inter- and multi-modality; resilience, safety and security of transport; driving aids; autonomous vehicle; connected vehicle; passenger transport networks and services; freight transport, urban logistics, IoT (Internet Of Things); urban services; e-services; urban data; smart cities; intelligent transport systems.

Related ERC code.s : LS08, LS09, PE01, PE02, PE03, PE06, PE07, PE08, PE10, SH01, SH02, SH03, SH04, SH06, SH07

Related SDG: 1, 3, 4, 6, 7, 9, 10, 11, 12, 13, 14, 15, and 16

Theme H.19: Transformation of production systems for goods and services: human, organisational and technological challenges

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This theme aims to support research focusing on production systems for goods and services, regardless of the scale considered, from the manufacturing unit or factory (and the processes, techniques and technologies it implements) to that of the large territories hosting these production systems. A production system refers to all the elements and processes involved in the production of goods and services. It encompasses the material, technological, organizational, human and natural resources needed to transform raw materials into finished products or to provide services. The research area should enable the creation, development and evaluation of innovative concepts, tools and methodologies to support the transition towards more resilient, robust and responsible production systems (in environmental and societal terms), serving Society, the economy and the environment.

It is open to a very wide range of disciplines, including engineering sciences, digital sciences, systems sciences, humanities, economics, and social sciences, and environmental sciences where applicable. Multidisciplinary, transdisciplinary, and systemic approaches involving stakeholders (businesses, of course, but also potentially other actors such as local authorities and associations) are encouraged. The research area is open to both exploratory research projects, including those on disruptive concepts for industrial systems, and to finalized or industrial research projects.

Research funded under this theme may fall within one or more of the scientific topics listed below:

- Design and operation of responsible production systems at the value chain/ecosystem level: strengthening resilience throughout the value chain by leveraging short-term levers and long-term planning.
- Design and operation of production systems that are part of a regenerative, circular, and sustainable economy to live within planetary boundaries.
- Design and operation of autonomous, adaptive, and intelligent production systems.
- Design and operation of production systems that serve industrial and societal sovereignty.

Projects are expected to take into account the imperatives of resilience and adaptation in the face of global and local challenges (minimization of greenhouse gas emissions and other environmental impacts, preservation of biodiversity), future constraints and disruptions (geopolitical uncertainties, tensions on human, financial and natural resources, energy and mineral resources, risks of shortages, etc.), leading in particular to rethinking the economic and organizational models (functional economy, circular economy, systemic approach, etc.) of productive systems in line with the principles of sustainable development. At the same time, it will also be necessary to consider ongoing developments, such as the increased use by stakeholders in these productive systems of digital tools such as robotics, automation, artificial intelligence or changes in the needs, practices or behaviour of consumers of goods or services. This axis is complementary to other axes of the generic call for projects, in particular axes dedicated to disciplinary fields such as [theme B.03 Engineering and process sciences](#), which welcomes projects aiming to develop new techniques for the development or control of components, and [theme E.04 Interaction, robotics, immersive worlds](#), which aims to develop innovative building blocks and devices in robotics.

Related key words : manufacturing production; service production; industrial ecosystems; networks and value chains; adaptation-resistance and change support; decision-making aids; assistance to the operator; integration of environmental aspects (eco-efficiency, eco-design, eco-production, industrial ecology, circular economy, functional economy, recycling, sustainable processes and services, energy-efficient and resource-efficient production, etc.); local ecosystem; ethics and well-being at work; cognitive ergonomics and engineering; fab-lab; management and life cycle assessment of product-service systems; systems engineering; frugal innovation; innovative measurement and control instrumentation, diagnostic methods and tools; integration of innovative manufacturing technologies (including additive manufacturing); human-machine interaction, cobotics; internet of things; logistics; maintenance (including predictive and anticipatory); management; economic models of production systems; optimization and operational research; work organization; personalization of products and services; augmented reality, virtual reality; manufacturing robotics; cyber-physical systems; control-command learning techniques; industrial innovation theory; human work.

Related ERC code.s : LS05, LS06, LS07, PE01, PE02, PE06, PE07, PE08, SH01, SH02, SH03, SH04

Related SDG: 8, 9, 10 and 12

Strategic priorities

The strategic priorities defined by the French Government concern the following themes of 2026 AAPG:

- Mathematics: theme F.01
- Quantum Technologies : theme E.06
- Artificial Intelligence: mainly theme E.02 and projects relevant to other themes but including a significant AI component

This priority aims to support projects with a primary AI component, offering added value in terms of scientific contribution in the field of AI (whether in terms of object, problem, or methodological approach) and in terms of knowledge production aimed at AI.

- SHS Interfaces: themes D.01, D.02, D.03, D.04, D.05, D.06, D.07, and transversal themes H.01, H.04, H.06, H.15, H.17, H.18, and H.19

This priority aims to encourage innovative interdisciplinarity by supporting interdisciplinary projects with a strong SHS component and thus encouraging SHS communities to invest in new problem areas.

- Exploitation of data generated by IR, IR*, and OSI*: all scientific themes

This priority concerns projects centered on the exploitation and analysis of data produced by an IR, IR*, or OSI⁶⁰, thereby reinforcing the scientific leadership of French teams leading the projects through the production of new knowledge. This priority aims to enable the exploitation of data that would not be utilized by French teams without this specific support.

- Neurodevelopmental Disorders: themes C.03, C.04, C.07, C.08, C.09, C.10, D.04, H.13, and H.14

This priority concerns fundamental and translational research on all neurodevelopmental disorders, except for the financing of cohorts.

- Therapeutic Proof of Concepts in Rare Diseases: all themes in the "Life Sciences" domain, from C.01 to C.11, and transversal theme H.13.

This priority concerns translational, pre-clinical/Proof of Concept (POC) research for therapeutic development with alternative models for rare diseases.








- Mental Health: themes in the "Biology-Health" domain C.07 and C.08, theme in the "Humanities and Social Sciences" domain D.04, and transversal theme H.04

This priority aims to support projects whose themes align with the priorities of the 2025 national cause for mental health, i.e., the development of prevention and early detection, improvement of access to care, and/or support for individuals in all dimensions of their lives.

⁶⁰ List of IR, IR* and OSI eligibles to the priority in [Appendix 3](#), list established on the [research infrastructure national roadmap](#)

Appendix 1: Provisional schedule of the 2026 Generic Call for Proposals (AAPG 2026)

New 2026
Registration
PRCE

STEP 1								
Scientific coordinators submit their pre-proposals (PRC/PRME/JCJC) or register their PRCI (in « ANR Lead Agency » modality or « Non- Lead Agency » modality) or their PRCE projects								
2025	July-August	September	October	November	December	January	February	2026
	Publication of the Work Programme and the AAPG call	Publication AAPG guide			Eligibility check of the pre-proposals and registration		Notification of the results	
		Submission of pre-proposals PRC/PRME/JCJC Registration of projects PRCI / PRCE						
				Individual evaluation by the panel members		Plenary meetings		
STEP 2								
The coordinators selected at the end of step 1 and the coordinators of a PRCI or PRCE project registered in step 1 submit a full proposal								
2026	March	April	May	June	July	December	
		Eligibility check			Publication Notification of the results	Contracting of the selected projects		
	Submission of a full proposal PRC/PRCE/PRCI/PRME/JCJC		Rebuttal					
		Individual evaluation by panel members		Plenary meetings				
		Individual evaluation by at least 2 external reviewers						

Appendix 2: List of the provisional bilateral collaborations and associated research themes in the 2026 AAPG call: International Collaborative Research Project (PRCI)*

New
2026

Please note that the PRCI collaborations with Singapore (NRF) and Canada (NSERC) are not renewed for the 2026 edition of the AAPG. The PRCI collaboration with the NSF for the theme “Molecular Chemistry (Precious Metal-Free Catalysis)” is suspended for the 2026 edition of the AAPG.

Modality of collaboration**	Country (agence)	Themes for collaboration	Associated scientific themes
Foreign Lead Agency	Germany DFG	All disciplinary fields funded by the ANR and DFG, except Humanities and Social sciences ***	All themes except D1 to D.7 and H.4
	Austria FWF	All disciplinary fields funded by the ANR and FWF	All themes
	United States NSF	• Neurosciences	Theme B.06, Theme B.07, Theme C.04, Theme C.07, Theme C.08, Theme H.11, Theme H. 14
		• Quantum technologies	<i>To be defined</i>
		• Digital sciences • Mathematics and its interactions	Themes E.1 to E.6 ; Theme F.1 ; Theme H.12 and H.14
Switzerland FNS	All disciplinary fields funded by the ANR and FNS	All themes	
ANR Lead Agency	Brazil FAPESP Brazil FACEPE	<ul style="list-style-type: none"> • Mathematics and Digital Sciences • Humanities and Social Sciences • Materials • Engineering, chemistry, physics • Environment, ecosystems and biological resources • Biology & Health 	Themes A.1 to A.4 ; Themes B.1 to B.7 ; Themes C.6 to C.8 Themes D.1 to D.7 ; Themes E.1 to E.6 ; Theme F.1 ; Themes G.1 and G.2 ; Themes H.1 to H.7 ; H.11 and H.12, H.14 to H.16 and Axe H.19
	Brazil CNPq	<i>Collaboration to be confirmed</i>	–
	Canada –Québec FRQ	<i>Collaboration to be confirmed</i>	–

Modality of collaboration**	Country (agence)	Themes for collaboration	Associated scientific themes
	Luxembourg FNR	All disciplinary fields funded by the ANR and FNR	All themes
<i>Non-Lead Agency</i>	Hong Kong RGC	All disciplinary fields funded by the ANR and RGC	All themes except H.17
	Taiwan NSTC	All disciplinary fields funded by the ANR and NSTC	All themes except H.17

* Appendices dedicated to confirmed PRCI collaborations will be available on the web page dedicated to 2026 AAPG. These appendices will describe the open themes, the particular submission process, the specific eligibility criteria, and must be consulted before any registration and/or submission of a PRCI project to the ANR or to the foreign funding agency.

** The PRCI instrument is available in 3 collaboration modalities:

(1) “ANR Lead Agency” modality: ANR is responsible of the main submission and evaluation of the projects. The collaborations concerned require registration of the project to the ANR in step 1 of the AAPG call;

(2) “Foreign Lead Agency” modality: the collaborating funding agency is responsible of the main submission and evaluation of the projects. The collaborations concerned do not require registration of the project in step 1 of the AAPG;

(3) “Non-Lead Agency” modality: projects are submitted to the two funding agencies, according to the timetable and modalities specific to each agency. The collaborations concerned require registration of the project to the ANR in step 1 of the AAPG call.

For more information : see the description of the funding instrument PRCI in [Collaborative research project– International \(PRCI\)](#)

*** Humanities and Social sciences are subject to a specific ANR-DFG call, beyond the AAPG (FRAL call).

Appendix 3: List of International scientific organisations (OSI) and Research infrastructures IR and IR* eligible to the “scientific exploitation of data generated by IR, IR* and OSIs” priority⁶¹

In step 1, when submitting a pre-proposal (instruments PRC/PRME/JCJC) or registering a project (instruments PRCI and PRCE), the coordinators indicate on the submission site the use of an OSI, IR or IR* from the list below.

Scientific field	Acronym	Name of the infrastructure	Type
Astronomy and astrophysics	ESO	European Southern Observatory	OSI
	SKAO	SKA Observatory	OSI
	CFHT	Canada-France-Hawaii Telescope	IR*
	CTA	Cherenkov Telescope Array	IR*
	IRAM	Institut de RadioAstronomie Millimétrique	IR*
	CDS	Centre de Données astronomiques de Strasbourg	IR
	HESS	High Energy Stereoscopic System	IR
	Instrum-ESO	Instrumentation pour les grands télescopes de l'ESO	IR
	LOFAR/NenuFar	International Low Frequency Radio Array Telescope – LOFAR FR	IR
	PARADISE	Plateforme pour les Activités de Recherche Appliquée et de Développement en Instrumentation au Sol et Embarquée	IR
Biology & Health	EMBL	Laboratoire Européen de Biologie Moléculaire/ European Molecular Biology Laboratory	OSI
	CALIS	Infrastructure Nationale de Recherche Consommateur-ALIMENT-SANTÉ	IR
	Celphedia	Infrastructure Nationale pour la création, l'élevage, le phénotypage, la distribution et l'archivage d'organismes modèles	IR
	ChemBioFrance	Plateforme de découverte de molécules bioactives pour comprendre et soigner le vivant	IR
	CONSTANCES	Cohorte des consultants des Centres d'examen de santé	IR
	ECELLFrance	Plateforme nationale pour la médecine régénératrice basée sur les cellules souches mésenchymateuses adultes	IR
	EMBRC France	Centre National de Ressources Biologiques Marines	IR
	EMERG'IN	Infrastructure Nationale de Recherche pour la lutte contre les maladies infectieuses animales émergentes ou zoonotiques par l'exploration in vivo	IR
	FBI	France-BioImaging	IR

⁶¹ List established from the « [research infrastructure national roadmap](#) »

Scientific field	Acronym	Name of the infrastructure	Type
	F-CRIN	Plateforme Nationale d'Infrastructures de recherche Clinique	IR
	FLI	France Life Imaging	IR
	France Cohortes	France Cohortes	IR
	France Génomique	Infrastructure nationale de génomique et bioinformatique associée	IR
	FRISBI	Infrastructure Française pour la Biologie Structurale Intégrée	IR
	IBISBA France	Industrial Biotechnology Innovation and Synthetic Biology Acceleration	IR
	IDMIT	Infrastructure nationale pour la modélisation des maladies infectieuses humaines et les thérapies innovantes	IR
	IFB	Institut Français de Bioinformatique	IR
	Ingestem	Infrastructure nationale des cellules souches pluripotentes et ingénierie tissulaire	IR
	Laboratoire P4 Jean Mérieux	Infrastructure de recherche dédiée aux maladies hautement infectieuses – Laboratoire P4 Jean Mérieux Inserm	IR
	LiPh@SAS	Livestock Phenotyping for Sustainable Agricultural Systems	IR
	MetaboHUB	Infrastructure française distribuée pour la métabolomique et la fluxomique dédiée à l'innovation, à la formation et au transfert de technologie	IR
	NeurATRIS	Infrastructure de Recherche Translationnelle pour les Biothérapies en Neurosciences	IR
	NEUROSPIN	Infrastructure de recherche sur le cerveau exploitant des grands instruments d'imagerie	IR
	PhenomeEmphasis France	Infrastructure Française de Phenomique Végétale	IR
	ProFI	Infrastructure Française de Protéomique	IR
Energy	ECCSEL-FR	Infrastructure de Recherche sur le Captage, Stockage et Valorisation du CO2 (CSCV) et le Stockage Souterrain d'Énergie	IR
	FR Solaris	Infrastructure de Recherche française sur le solaire thermique concentré	IR
	THEOREM	Réseau de Moyens d'Essais en Hydrodynamique pour les Énergies Marines Renouvelables	IR
	WEST	W(Tungsten) Environment for Steady-state Tokamaks	IR
High-energy nuclear physics	CERN	Organisation Européenne pour la Recherche Nucléaire	OSI
	CERN LHC	Large Hadron Collider	IR*

Scientific field	Acronym	Name of the infrastructure	Type
	DUNE / PIP-II	Deep Underground Neutrino Experiment / Proton Improvement Plan II	IR*
	EGO-Virgo	European Gravitational Observatory - Virgo	IR*
	FAIR	Facility for Antiproton and Ion Research	IR*
	GANIL-SPIRAL2	Grand Accélérateur National d'Ions Lourds – Système de Production d'Ions Radioactifs en Ligne de 2e génération	IR*
	AGATA	Advanced GAMMA Tracking Array	IR
	JUNO	Jiangmen Underground Neutrino Observatory	IR
	KM3NeT	Kilometre Cube Neutrino Telescope	IR
	LSM	Laboratoire Souterrain de Modane	IR
	LSST	Legacy Survey of Space and Time	IR
	PAO	Pierre Auger Observatory	IR
Humanities and Social Sciences	HUMA NUM	La Très Grande Infrastructure de Recherche des Humanités Numériques	IR*
	PROGEDO	PROduction et GESTion de DONnées	IR*
	RnMSH	Réseau national des Maisons des Sciences de l'Homme	IR
Materials and Engineering Sciences	Apollon	Laser Apollon	IR*
	ESRF	European Synchrotron Radiation Facility	IR*
	ESS	European Spallation Source	IR*
	European XFEL	European X-ray Free Electron Laser	IR*
	ILL	Institut Max von Laue – Paul Langevin	IR*
	SOLEIL	Synchrotron SOLEIL	IR*
	EMIR&A	Fédération des accélérateurs pour l'IRradiation et l'Analyse des molécules et Matériaux	IR
	Infranalytics	Fédération nationale des équipements analytiques à très haut champ magnétique	IR
	LMJ-PETAL	Laser Mégajoule – PETawatt Aquitaine Laser	IR
	LNCMI	Laboratoire National des Champs Magnétiques Intenses	IR
	METSA	Microscopie Électronique en Transmission et Sonde Atomique	IR
	REFIMEVE	REseau Fibré Métrologique à Vocation Européenne	IR
	RENATECH+	Réseau national des centrales de technologies de nanofabrication	IR
Digital sciences and mathematics	CONTINUUM	Continuité Collaborative du Numérique vers l'Humain	IR
	ROBOTEX 2.0	L'infrastructure coordonnée des plateformes de Robotique en France	IR
	SILECS	Infrastructure for Large-Scale Experimental Computer Science	IR

Scientific field	Acronym	Name of the infrastructure	Type
Earth System and Environmental Sciences	CEPMMT	Centre Européen pour les Prévisions Météorologiques à Moyen Terme	OSI
	CONCORDIA	CONCORDIA – station de recherche antarctique franco-italienne	IR*
	ECORD/IODP	Programme international de forage profond en mer/European Consortium for Ocean Drilling Research/International Ocean Discovery Program	IR*
	EURO-ARGOFrance	Réseau in-situ global d'observation des océans/ European contribution to Argo program	IR*
	FOF	Flotte Océanographique Française	IR*
	ICOS-France	Système Intégré d'Observation du Carbone/ Integrated Carbon Observation System	IR*
	ACTRIS-France	Aerosol, Cloud and Trace Gases Research Infrastructure – France	IR
	AnaEE-France	Analyse et Expérimentation sur les Écosystèmes – France	IR
	CLIMERI-France	Infrastructure de recherche nationale de modélisation du système climatique de la Terre	IR
	DATA TERRA	Pôles de données et services pour le système Terre	IR
	eLTER-France OZCAR	Observatoires de la Zone Critique, Applications et Recherche	IR
	eLTER-France RZA	Réseau des Zones Ateliers – Infrastructure des Socio-écosystèmes	IR
	EMSO-France	European Multidisciplinary Seafloor and water column Observatory – France	IR
	IAGOS-France	Instruments de mesure embarqués sur avions pour l'observation globale/ In-service Aircraft for Global Observing System	IR
	ILICO	Infrastructure de Recherche Littorale et Côtière	IR
	IN AIR	Infrastructure Nationale des Aéronefs Instrumentés pour la Recherche	IR
	In-Sylva-France	In-Sylva France Infrastructure Nationale de recherche pour la gestion adaptative des forêts	IR
	PNDB	Pôle National de Données de Biodiversité	IR
	RARe	Ressources Agronomiques pour la Recherche	IR
	RECOLNAT	Réseau national des collections naturalistes	IR
RESIF/EPOS	Réseau sismologique et géodésique français/ European Plate Observing System	IR	
Digital Services	GENCI	Grand Équipement National de Calcul Intensif	IR*
	RENATER	Groupement d'intérêt public pour le réseau national de communications électroniques pour la technologie, l'enseignement et la recherche	IR*
	CC-IN2P3	Centre de Calcul de l'IN2P3	IR

Scientific field	Acronym	Name of the infrastructure	Type
	CINES	Centre informatique national de l'enseignement supérieur	IR
	France Grilles		IR
Scientific information	CollEx-Persée	Collections d'excellence pour la Recherche – Persée	IR
	HAL+	Archive ouverte de prochaine génération	IR
	Métopes	Méthodes et outils pour l'édition structurée	IR
	OpenEdition	Communication scientifique ouverte en sciences humaines et sociales	IR