



AGENCE NATIONALE DE LA RECHERCHE

ANR

Work Programme 2019

Date of publication:

26 July 2018

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A. Context and objectives of Work Programme 2019

A.1) General context of the Work Programme

The French National Research Agency (ANR) is France's project-based research funding agency for public operators, in conjunction with them or with companies. Supervised by the French Ministry for Research, it is the operational research funding agency based on competitive selection by peer review that complies with international standards. In 2010, the ANR was appointed by the French state to manage major investment programmes in higher education and research. The Agency can also facilitate access to various related calls for tender through digital portals.

Its primary mission of funding public research involves ANR in the implementation of the National Research Strategy (SNR). The higher education and research law of 22 July 2013 underscored the need to define and implement a National Research Strategy. It entrusts the Strategic Research Council (CSR) with drafting the major guidelines for the SNR and to assist in assessing its implementation through the Operational Research Committee (COMop). It sets out the responsibility of the Minister for Research in maintaining this strategy in line with the European Union strategy. All the provisions of this strategy have been incorporated into the French Research Code.

Over and above the National Research Strategy, the ANR programmes, especially its Generic Call for Proposals (AAPG), are designed to give researchers in various scientific fields access to co-funding in a large number of research themes (applied or otherwise) in a disciplinary and interdisciplinary framework, in addition to their allocated recurrent funding. The agency thus has the mission of funding and promoting basic and applied research, technical innovation, technology transfer, scientific culture and public-private partnerships. Its work involves promoting academic and technological excellence in French research by means of a rigorous competitive selection process based on peer review in compliance with international standards.

ANR also sets out to strengthen scientific cooperation at the European and international levels by scheduling its programmes in line with European and international initiatives and by following the international scientific strategy guidelines laid down by its supervisory ministry. It thus supports international consortia in partnership with other funding agencies in Europe and throughout the world.

The Work Programme reflects the work carried out by research teams in France to help society address the major challenges it faces, in line with the EU's Horizon 2020 "Societal Challenges", the OECD's "Megatrends", and the United Nations' "Sustainable Development Goals" (SDGs). It shines a spotlight on public research funding efforts for citizens and efforts to promote a scientific culture, and allows for quantified monitoring of the French state's action in implementing the SNR.

The ANR Work Programme is the roadmap in this general context that incorporates the priority research areas of our country set out in the SNR document. It also takes into consideration contributions from the five Alliances,¹ CNRS, and requests from the French Ministry for Research (MESRI), which coordinates interministerial initiatives between relevant ministries.²

Work Programme 2019 describes the initiatives and calls for proposals proposed by ANR under the 2019 budget year and thus gives its funding proposals all-round visibility. **It is directed towards all scientific communities and all public and private players involved in French research**, including small and medium-sized enterprises (SMEs) and very small enterprises.

¹ Allenvi (Alliance for environmental research), Allistene (Alliance for science and digital technology), Ancre (National alliance for coordination of energy research), Athena (National alliance for social sciences and the humanities) and Aviesan (National alliance for life and healthcare sciences).

² Supervisory ministry: French Ministry for Higher Education, Research and Innovation (MESRI). Other relevant ministries include agriculture, ecology, healthcare, industry, defence, foreign affairs, culture and national education.

Interdisciplinary research is an important component of the many cross-disciplinary research themes covered, such as:

- Healthcare – Environment – Society
- Healthcare – Digital
- Digital humanities
- Society – Digital – Security
- Digital – Energy – Environment – Society

Work Programme 2019 also includes the strategy priorities³ defined by the French state and implemented in government work programmes:

- Artificial Intelligence
- Social Sciences and Humanities
- Quantum Technologies
- Antimicrobial Resistance
- Autism in Neurodevelopmental Disorders
- Translational Research on Rare Diseases

Specific calls for proposals may also cover other priorities, in partnership with various co-funding partners, such as “Hydrogen” with Ademe and “Ending Pesticide Use” with the EcoPhyto Plan.

Lastly, the Work Programme aims to strengthen France’s position in the European Commission’s forthcoming ninth framework programme (FP9) by stepping up bilateral strategic collaborations, especially between France and Germany.

A.2) Structure and objectives of Work Programme 2019

Work Programme 2019 (WP 2019) is divided into four cross-disciplinary components, each with its own budget. Each component has funding instruments, calls for proposals and special programmes. **The main component, “Research and Innovation”, relates to the Generic Call for Proposals (AAPG).**

A succinct presentation of the funding instruments offered by ANR can be found in Section C of this document. Every funding instrument has its own *raison d’être*, specific anticipated effects and distinct characteristics in terms of selection and monitoring. They can be collaborative research instruments, instruments specific to individuals or all other WP 2019 programmes and calls for proposals.

Researchers submitting a proposal should at the same time choose the funding instrument that will best serve the scientific objectives and requirements of their project.

The **four components** of Work Programme 2019, including their strategic dimensions, are summarised below:

1. “Research and Innovation covered by the Generic Call for Proposals” component

The “Research and Innovation” component combines both the acquisition of basic knowledge and targeted, often applied, research. It is the subject of the Generic Call for Proposals (AAPG) and uses all the instruments (details in [§C](#)) that fund individual research projects coordinated by young researchers (**JCJC**) or collaborative research projects between public entities in a national or international context (**PRC** and **PRCI** respectively) and public and private entities with a potential opening to the world of business (**PRCE**).

The societal challenges defined as the framework for the National Research Strategy – France-Europe 2020⁴ (SNR) **are also the backdrop for the ANR’s Generic Call for**

³ Each priority is divided into one or more themes from the Work Programme and the Generic Call for Proposals (see the Generic Call for Proposals for details of the research themes).

⁴ http://cache.media.enseignementsup-recherche.gouv.fr/file/Strategie_Recherche/26/9/strategie_nationale_recherche_397269.pdf

Proposals (AAPG) 2019, with the exception of the “space” sector, which falls under the remit of CNES. These major societal challenges⁵ require basic and applied research.

The “**Research and innovation**” component covered by the AAPG has been structured into research themes, in a concerted manner taking account of the SNR (challenges and work programmes), contributions for possible updates from the five Alliances, CNRS and CPU, and requests from MESRI – the ministry that coordinates interministerial initiatives between relevant ministries and programming advisory panels.⁶

- There are **35 research themes** spanning 7 **disciplinary** areas
 - Environmental Sciences
 - Energy and Materials Sciences
 - Life Sciences
 - Social Sciences and Humanities
 - Digital Sciences
 - Mathematics and its Interactions
 - Physics of Matter, High Energy, Earth and Universe Sciences.
- There are **13 research themes** covering **cross-disciplinary** (or interdisciplinary) themes that span more than one field of science.

Each theme within the Work Programme has its own Scientific Evaluation Panel, set up under the Generic Call for Proposals.

The panels dealing with cross-disciplinary or interdisciplinary themes include members who cover all required disciplines.

2. Specific initiatives outside AAPG (Flash, Challenges, etc.)

Certain focused topics with narrow objectives deserve an extremely rapid response or specific arrangements. ANR has a specific instrument to support an urgent need for research with scientific relevance to an event or disaster of exceptional magnitude: **Flash Calls**. Decisions to launch a Flash Call in response to a sudden event are widely advertised.

Other topics need teams to pit against each other in developing competing approaches to address major scientific or technological barriers. ANR has devised a special arrangement for these topics, known as **Challenges**. Challenges are subject to a specific call for proposals, generally co-funded, stating the objectives and what types of tests are envisaged.

3. “Building the European Research Area and France’s international attractiveness” component

This component makes funding instruments available to French researchers and teams to increase the influence and appeal of national research and to help build the European Research Area (ERA). These instruments specify or supplement their counterparts under the Horizon 2020 programme. They foster the development of high-level research partnerships, helping French teams to assume leadership roles in European and international programmes.

The societal challenges that form the backdrop to Work Programme 2019 have strong European and international dimensions, as they have been designed on a sector-by-sector

⁵ Names of the societal challenges:

1. “Efficient resource management and adaptation to climate change”
2. “Clean, secure and efficient energy”
3. “Industrial renewal”
4. “Life, health and well-being”
5. “Food security and demographic challenges”
6. “Sustainable mobility and urban systems”
7. “Information and communication society”
8. “Innovative, inclusive and adaptive societies”
9. “Freedom and security of Europe, its citizens and its residents”

⁶ In 2018, the programming advisory panels (CPPs) replaced the former scientific advisory panels for each challenge, which were abolished in November 2017.

basis to be consistent with and complementary to the societal challenges of the European Horizon 2020 framework programme. Some have had their contents designed in conjunction with European (ERA-NET, JPI, ERA-NET Cofund, etc.) and international (Belmont Forum, etc.) programmes. In addition to the PRCI instrument under the “Research and Innovation” component, ANR also enters into bilateral agreements with foreign agencies to set up strategic partnerships or facilitate international collaboration in a borderless research area (see [§D.5](#), [§D.6](#) and [§D.7](#)).

The “Building the European Research Area and France’s international attractiveness” component in Work Programme 2019 takes the form of several specific funding instruments, with each one the subject of a special call for proposals:

- “Setting up European or International Scientific Networks” (**MRSEI**) aims to strengthen the position and influence of French research in the European and international spheres (specific call for proposals: see [§D.5](#)).
- “Springboard-ERC” (**T-ERC**) aims to boost the success of French researchers applying for European Research Council (ERC) “Starting Grants” and “Consolidator Grants” (specific call for proposals: see [§D.6](#)).

In addition to these specific instruments, ANR funds French teams under bilateral strategic partnerships or through multilateral programmes such as joint programming initiatives (JPI), European instruments in FP7 (such as **ERA-NET** and **ERA-NET+**) and Horizon 2020 (such as **ERA-NET Cofund**), as well as under other multinational initiatives addressing major global challenges (**G8 research**, **Belmont Forum**, etc.) (see [§D.7](#) and Tables 2 and 3 for a summary of these international calls for proposals; the list of calls is updated regularly and can be found on the ANR website).

4. “Economic impact of research and competitiveness” (IERC) component

The purpose of this component is to stimulate partnerships with enterprises and transfer the findings from public research to the business community. The proposed initiatives boost cooperation and partnerships, thereby creating value from the results of public research. They also encourage R&D efforts among companies by urging them to invent and innovate.

These initiatives are positioned in line with an increasing focus on technology readiness and on varying degrees of reinforced integration of these inter-sector partnerships. It has also been noted that a relatively small number of SMEs and intermediate-sized enterprise in France offer innovative services or products because they struggle to forge links with the public research sector. This justifies a particular approach by some initiatives towards these SMEs and intermediate-sized enterprises.

In addition to the “Collaborative research projects involving enterprise(s) (PRCE)” instrument of the “Research and Innovation” (AAPG) component, the IERC component also features specific programmes:

- **LabCom and LabCom Consolidation**: To create and consolidate laboratories established jointly between a public research laboratory and a small or medium-sized enterprise (SME) or an intermediate-sized enterprise. The technology readiness of projects is intermediate. (see [§D.1](#)).
- **Industrial chairs**: To create chairs in public laboratories, established together with the enterprises and funded jointly by ANR and the enterprises. This initiative aims to strengthen the innovative and strategic research potential in priority areas for French industry where technology readiness levels (TRL) are still low. (see [§D.2](#)).
- **Carnot Institute**: To develop contractual research between public research structures and the world of business. (see [§D.3](#)).

Partnerships between enterprises and public research are also encouraged in the “Research and innovation” (AAPG) component through the “Collaborative research projects involving enterprise(s)” (PRCE) instrument (see [§C.2-3](#)).

All these initiatives work hand-in-hand with academic research transfer structures, funded mainly under the Investments for the Future plan, such as Technology Transfer Accelerator Companies (SATTs) and public entities with close ties to the world of business. As in the past, competitiveness clusters will be invited to label ANR calls for proposals that open in 2019.

A.3) Other funding opportunities, partnerships and co-funding

In line with its mission as a project-based research funding agency, ANR establishes partnerships with other funders (see [Table 4](#) in the annexes), such as:

- the French Biodiversity Agency (AFB)
- the National Solidarity Fund for Autonomy (CNSA)
- the French Ministry of Defence (Defence Procurement Agency – DGA),
- the French Ministry for Solidarity and Health (General Directorate for Care Provision – DGOS)
- the French Ministry for Agriculture and Food (MAA)
- the French Ministry for the Ecological and Inclusive Transition (MTES)
- the General Secretariat for Defence and National Security (SGDSN).

These particularly valuable partnerships provide project funding and co-funding opportunities that complement the ANR's own operating budget.⁷ Examples include the **Astrid** and **Astrid Maturation** programmes, which focus on dual research and are implemented by ANR with DGA funding (see [§D.4](#)).

Other public institutions also provide funding for project-based research and launch their own calls for proposals, such as the National Cancer Institute (Inca) and the National Agency for Research on HIV and Hepatitis A (ANRS). For efficiency reasons, projects falling under these calls for proposals are not funded by ANR. The eligibility of projects submitted to ANR, regardless of the WP 2019 call for proposals, that come under themes likely to be supported by these bodies, will be run by them in conjunction with ANR.

A.4) Values and commitments of Work Programme 2019

1. Scientific integrity

ANR, as a signatory to the French National Charter for Research Integrity and in accordance with the circular of March 2017⁸ on the scientific integrity policy, ensures that all initiatives included in Work Programme 2019 comply with the principles of the charter.

ANR has reviewed and expanded its own Code of Ethics to include the concept of scientific integrity. The agency will ensure that all funding recipients uphold the rules and values that should govern research activities, in the interest of guaranteeing that such activities are conducted honestly and with scientific rigour. Maintaining society's trust in the research community is dependent on it upholding these principles.

In addition to signing the charter, ANR has also appointed an ethics and scientific integrity focal point to ensure that the fundamental principles are upheld, to prevent conflicts of interest and manage them properly when they arise, and to train the agency's internal and external collaborators.

2. Gender

ANR supports a policy⁹ of reducing gender inequalities in higher education and research, and has also added the principle of equality to its Code of Ethics. In doing so, the agency aims to

⁷ Co-funding is understood to mean that part of the aid allocated to the project (based on the initial request) comes from ANR's partner. This does not normally involve additional funding.

⁸ Circular 2017-040 of 15-3-2017 – MENESR – DGRI – SPFCO B2

⁹ Monitoring the 9th European Conference on Gender Equality in Higher Education and Research – DGSIP – DGRI

ensure that stakeholders systematically consider sex and/or gender aspects in two areas: knowledge production and scientific evaluation.

Moreover, in order to address the over-representation of men in science and to encourage young women to pursue careers in fields where they are absent or in a minority, ANR is determined to showcase women in science who have secured funding from the agency or are involved in Scientific Evaluation Panels.

3. The Nagoya Protocol

The Nagoya Protocol on Access to 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. The Protocol aims to promote the conservation of biodiversity and the sustainable use of its components, and to strengthen the contribution of biodiversity to sustainable development and human well-being.

The Nagoya Protocol significantly advances the Convention's third objective by providing a strong basis for greater legal certainty and transparency for both providers and users of genetic resources. Regulation (EU) no. 511/2014 and French act no. 2016-1087 determine how the Protocol is applied,¹⁰ setting two control points:

- i) at the research funding stage, under the control of the French Ministry for Higher Education, Research and Innovation (MESRI), and
- ii) at the final product development stage, under the control of the French Ministry for the Ecological and Inclusive Transition (MTES).

Under this arrangement, ANR must obtain documentary evidence of Due Diligence Declarations (DDD) for all research projects that it funds. This rule applies to projects funded in 2018 and to applicants for the 2019 calls, who will be asked to make a declaration on potential utilisation of genetic resources during their projects.

DDDs for research work can be submitted online using the special application on the MESRI website. Credentials to access the application can be obtained from the director of the host institution. For full details, go to: <http://www.enseignementsup-recherche.gouv.fr/pid37627/utilisation-ressources-genetiques-associees.html>

4. Open Science: Scientific publications and research data

ANR's Open Science policy aligns with the national plan¹¹ presented by the French Minister for Higher Education, Research and Innovation, Frédérique Vidal, on 4 July 2018. The dissemination, sharing and long-term archiving of scientific publications and research data related to projects funded by ANR helps enhance the visibility and attractiveness of French research, promote scientific culture and make science a common good.

As a signatory to the "Partnership agreement to foster open archives and the HAL (Hyper Articles on Line) shared platform",¹² alongside research and teaching organisations, ANR draws on article 30 of the "Digital Republic" act¹³ and requires that the full texts of all publications resulting from the projects it funds should be posted in the open archives, directly in HAL or via a local institutional archive.¹⁴

¹⁰ Act on restoring biodiversity, nature and landscapes (French act no. 2016-1087 of 8 August 2016) and its implementing decree on access to genetic resources and sharing of benefits arising from their utilisation (implementing decree no. 2017-848 of 9 May 2017).

¹¹ http://cache.media.enseignementsup-recherche.gouv.fr/file/Actus/67/2/PLAN_NATIONAL_SCIENCE_OUVERTE_978672.pdf

¹² "Partnership agreement to foster open archives and the HAL (Hyper Articles on Line) shared platform" – 2 April 2013

¹³ French act no. 2016-1321 of 7 October 2016 for a Digital Republic

¹⁴ At least the author accepted manuscript (AAM) for publication.

In the interest of fostering open publication of research data, applicants should understand the importance of research data when setting up projects and throughout the whole process. ANR will require all projects funded from 2019 onwards to have a data management plan (DMP).¹⁵

For more detailed information on the Optimised Sharing and Interoperability of Research Data, applicants should refer to the Inist-CNRS OPIDoR portal, at: <https://opidor.fr>.

¹⁵ The DMP is a formal document produced at the start of a project or research process, defining how the data will be created/collected, and how it will be documented, used, managed, shared, protected and stored throughout the project and following its completion. The document will be updated on a regular basis until the project is complete.

B. Research areas linked to the ANR Call for Generic Proposals 2019 (AAPG 2019).¹⁶

B.1. Environmental Sciences

1. Fluid and solid earth
2. Living earth
3. Scientific and technological innovations to support the ecological transition
4. Biology of animals, photosynthetic organisms and micro-organisms
5. Food and food systems
6. Dynamics of ecosystems and their components for their sustainable management

B.2. Energy and Materials Sciences

1. Sustainable, clean, safe and efficient energy
2. Polymers, composites, physics and chemistry of soft matter
3. Molecular chemistry and associated processes for sustainable chemistry
4. Metallic and inorganic materials and associated processes
5. Chemistry: analysis, theory and modelling

B.3. Life Sciences

1. Biochemistry of living organisms
2. Characterisation of structures and structure-function relations of biological macromolecules
3. Genetics, genomics and RNA
4. Cellular biology – Developmental biology and Evolution
5. Physiology and physiopathology
6. Immunology, infectiology and inflammation
7. Molecular and cellular neuroscience – Developmental neurobiology
8. Integrative and cognitive neuroscience
9. Translational health research
10. Biomedical innovation

B.4. Social Sciences and Humanities

1. Innovation – Work
2. Culture, creations, heritage
3. Lifelong cognitive skills, education and training
4. Inequalities, discriminations, migrations

B.5. Digital Sciences

1. Digital foundations: information technology, automation, signal processing
2. Artificial intelligence
3. Micro- and nanotechnologies for information and communication processing

¹⁶ The scientific areas are described in the Generic Call for Proposals, along with the associated keywords and ERC codes.

4. Multi-purpose communication networks, high-performance infrastructure, software sciences and technologies
5. Interaction – Robotics
6. Digital models, simulations, applications
7. Quantum technologies

B.6. Mathematics and its Interactions

1. Mathematics

B.7. Physics of Matter, High Energy, Planetary and Universe Sciences

1. Physics of condensed matter and diluted matter
2. Sub-atomic physics – Sciences of the Universe – Structure and History of Earth

B.8. Cross-disciplinary themes

1. Human-environment interactions
2. Contaminants, ecosystems and health
3. Health-Environment: Environment, pathogens and emerging or re-emerging infectious diseases, adaptations and antimicrobial resistance
4. Public health
5. Mathematics and digital sciences for biology and health
6. The Digital Revolution: relationship to knowledge and culture
7. Healthcare technologies
8. Global security – Cybersecurity
9. Bioeconomy: chemistry, biotechnology, system processes and approaches, from biomass to uses
10. Urban societies, territories, constructions and mobility
11. Nanomaterials and nanotechnologies for the products of the future
12. Sensors, instrumentation
13. Factory of the future: People, organisations, technologies

C. Generic Call for Proposals funding instruments

The ANR Generic Call for Proposals 2019 deploys a range of funding instruments for performing the roles assigned to it by French public research and innovation policy and addressing the needs of the project-based research community. Funding instruments come under two categories, the characteristics and requirements of which are extremely important in project selection and monitoring:

- The “**individual**” category relates solely to the “Young Researchers” instrument (**JCJC**).
- The “**collaborative research**” category proposes three instruments: “Collaborative research projects” (**PRC**), “Collaborative research projects involving enterprise(s)” (**PRCE**) and “International collaborative research projects” (**PRCI**).

C.1) Young Researchers (JCJC) instrument

The goal of the “Young Researchers” (JCJC) funding instrument is to prepare the new generation of young research talent to become leaders and pioneers in French scientific research. The instrument empowers young researchers and encourages them to adopt innovative approaches as they tackle scientific and technological bottlenecks. It allows young researchers to explore their own research theme, form or consolidate a team inside or outside their laboratory, acquire a project-based research culture and unleash their innovative talents. The instrument is also a springboard for young French researchers or young researchers carrying out their work in France who, thanks to initial support from ANR, are given a leg up when it comes to submitting a project in response to calls from the European Research Council (ERC), with the greatest chance of success.

This individually oriented instrument only provides for the funding of the young researcher’s team. The instrument is open to researchers working in the private sector. However, in 2019 it is not open to non-tenured researchers (*see AAPG guide*).

C.2) Specific collaborative research funding instruments

Collaborative projects set out to achieve scientific or technological results by pooling the skills and resources of various public or private, national or international research teams or groups. By facilitating collaboration, the grants expedite proposed research. These instruments encourage research teams to work on projects for which collaboration provides added scientific value, either by making research possible, or by paving the way for more ambitious or higher quality results. Proposals for multidisciplinary research in this context are welcome.

C.2-1) Collaborative research projects (PRC)

The “Collaborative Research Projects” (PRC) funding instrument is the ANR’s main funding instrument. It includes all forms of collaboration¹⁷ not covered by the PRCI and PRCE instruments.

C.2-2) International collaborative research projects (PRCI)

ANR collaborates with research funding agencies in other countries and signs agreements facilitating collaboration between teams from different countries. The agency establishes bilateral agreements that can relate to precise themes or be open to all ANR-funded research themes. The objectives of these agreements include:

- accelerating and developing French researchers’ collaborations with top European and international research teams in key research fields

¹⁷ The collaborative nature is evaluated not only by the number of partners involved but by the value the proposed collaboration will add (in terms of scientific expertise and not just in administrative terms) and the opportunity opened up by obtaining project funding to implement this collaboration, in a context of scientific originality compared with the scientific research by the structures, teams or groups involved. Nevertheless, in special situations where projects are of an exceptionally high standard, they can be submitted even if proposed by single structures, teams or groups.

- fostering partnerships with emerging countries on themes of mutual interest and shared benefits
- promoting the formation of elite international teams for the performance and sharing of top-drawer research worldwide.

For partnerships centred around specific research areas, ANR and its partners strive to extend research over a two- to three-year period in order to strengthen collaborations and encourage the emergence of quality projects.

The “International collaborative research projects” (PRCI) funding instrument is specific to these bilateral collaborations between at least one French partner (eligible for ANR funding and appointed as the French coordinator) and at least one foreign partner (eligible for funding from a foreign funding agency that has signed a bilateral agreement with ANR). Robust synergy is expected between the two partners submitting a project together, showing equal involvement of French and foreign partners and identifying actual scientific coordinators for projects in each country. The countries covered by these bilateral agreements for Work Programme 2019 are:

- *Europe: Germany, Austria, Luxembourg and Switzerland.*
- *Worldwide: Brazil, Canada, Hong Kong, Russia, Singapore, Taiwan and Turkey.*

Details of the research themes covered by these collaborations are given in [Table 2](#) (in the annexes).¹⁸

In addition to the PRCI instrument under the Generic Call for Proposals, special calls for proposals are issued for bilateral collaborations of strategic importance to the French state. These calls, which reflect a shared ambition with partner agencies, have their own budget and, in most cases, special evaluation and selection criteria. Further details of these special international collaborations can be found on the ANR website.

C.2-3 Collaborative research projects involving enterprise(s) (PRCI)

The “Collaborative research projects involving enterprise(s)” (PRCE) funding instrument is targeted specifically at collaborations between one or more academic or public research laboratories **and** one or more enterprises involved in R&D.¹⁹ These projects **aim to yield findings that are advantageous to both parties** by enabling public laboratories to address new research issues or address them differently, and by enabling enterprises that conduct R&D to access high-level public research in order to improve their innovation capacities over different periods.

D. Funding instruments with specific calls for proposals

Work Programme 2019 proposes various **funding instruments**, each with its own specific anticipated effects and distinct characteristics in terms of selection and monitoring.

This section is devoted to describing funding instruments that can be used outside the Generic Call for Proposals. These relate to specific programmes or calls for proposals, the timetables for which can be found on the Work Programme page on the ANR website.

Specific initiatives outside AAPG (Flash, Challenges, etc.)

The Challenges and Flash calls are subject to specific calls for proposals setting out their objectives or research covered. Specific communication takes place when Challenges and

¹⁸ List drafted at the time of publication of WP 2019 and likely to be supplemented or amended: applicants are invited to consult the ANR website regularly. Country-specific annexes (available on the ANR Generic Call for Proposals webpage) list eligible themes and the specific submission and selection procedures. The annexes set out additional eligibility conditions for the Generic Call for Proposals and must therefore always be consulted prior to any submission to ANR or foreign partners.

¹⁹ See ANR’s financial rules for the definition of “enterprise”: <http://www.agence-nationale-recherche.fr/fileadmin/documents/2018/ANR-RF-2018-1.pdf>.

Flash calls are launched. For details about the scientific scope and timetables, applicants are advised to consult the 2019 agenda on the ANR website on a regular basis.

The Flash instrument has come into play five times since its creation (Flash Haiti, Flash Fukushima, Flash Drones, Flash Ebola and Flash Asile (Asylum)). The rapid intervention procedures can select and fund projects in very short timeframes while ensuring competitive selection by peer review complying with the highest standards.

Most often sponsored by a co-funding partner, the Challenges select and fund several teams that pit their approaches against one another through a series of tests, organised in conjunction with the French National Laboratory for Metrology and Testing (LNE). For instance, recent Challenges have included Image Forgery Detection (DEFALS), Indoor Person Positioning (MALIN), and Robotics and Sensors for EcoPhyto (ROSE).

“Economic impact of research and competitiveness” component

ANR’s main mission is to encourage the transfer of results from public research to the business community. In addition to collaborative projects involving enterprises (see “Collaborative research projects involving enterprise(s)” in §C.2-3) – the generic call instrument for relationships with the world of business – ANR has a series of programmes to revitalise the partnership between laboratories and private companies by means of various project-based research methods.

This cross-disciplinary component combines three programmes regulated by specific calls for proposals – **LabCom and LabCom Consolidation, Industrial Chairs** and **Carnot Institute** – as well as two programmes funded entirely by the French Defence Procurement Agency (DGA), **Astrid** and **Astrid Maturation**. All the instruments under this component call for the participation of research bodies and enterprises. Eligibility conditions and details of what proposals are expected to contain are set out in the relevant calls for proposals.

D.1) LabCom and LabCom Consolidation

The programme supports the creation of joint laboratories (**LabCom**) between public or public-like research bodies and small and medium-sized enterprises (SMEs) or intermediate-sized enterprises, with a view to developing the potential of existing industrial partnerships and transfer arrangements among academic researchers, particularly those involved in non-partnership-oriented research. The aim of this programme is to help researchers establish lasting bilateral partnerships with companies, especially SMEs and intermediate-sized enterprises, as these partnerships are crucial to the innovation process. The transfer of results and know-how from public-funded research to smaller companies can be a significant factor in innovation, competitiveness and job creation.

For this programme, which opened in 2013, ANR proposes fixed funding of €300k for the public research laboratory. The funding is simple to arrange, very quick to set up and far more flexible in how the grant is used. This programme is continuing in 2019 under similar procedures and criteria to previous years.

The **LabCom** programme has also offered a second phase since 2017. This will involve so-called **consolidation** aid over 12 to 18 months (up to €100k, funded equally by ANR and the enterprise) under a call for proposals open to laboratories previously tagged as LabCom, where financial returns from the exploitation of joint results cannot yet support the established joint structure financially.

These programmes are the subject of a specific call for proposals on a continuous flow basis (two to three calls a year). Applicants are advised to consult the specific page on the ANR website.

D.2) Industrial chairs

This programme is designed to mobilise resources to consolidate and strengthen the competitiveness of French companies²⁰ and has a threefold objective:

- To enable teacher-researchers and French or foreign researchers of international standing, whether or not they are internationally mobile, to work on an ambitious, innovative research programme of indisputable industrial scope.
- To build and structure collaborative scientific research initiatives in priority and strategic areas for public and private stakeholders involved in the industrial chair through a strong and lasting partnership.
- To provide quality-oriented training at the highest international level by making the long-term vision, methodologies and experience of members of the business community available to PhD and post-PhD researchers working at public research laboratories.

This programme features a call for proposals open to all research themes on topics defined jointly by the industrial chair's host institution²¹ and one or more partner enterprises. The project is led by an eminent scientist, the future industrial chair-holder, and funded equally by ANR and the partner enterprise(s). The selection process hinges on a single submission document containing the CV of the applicant designated as the industrial chair-holder. The application is submitted by the host institution, working closely with the partner enterprise(s) (which sign a letter of commitment when the project is submitted).

Funding will be granted for 48 months. The ANR contribution will be matched with funding from the enterprises (liquid capital paid to the host institution).

This initiative is subject to a specific call for proposals. Researchers are advised to consult the 2019 call for proposals agenda on the ANR website.

D.3) Carnot Institute

Since 2006, the French Ministry of Higher Education, Research and Innovation (MESRI) has awarded the "Carnot Institute" label to public research institutions whose main strategic focus is partnership-oriented research. In the interest of promoting and supporting cooperation between research institutions and the world of business, ANR makes an annual contribution (based on partnership revenues) to the Carnot Institutes. This contribution is used to develop scientific resources and to forge more professional partnerships with businesses.

A panel of experts mainly from the business world, called the Carnot Commission 3, has been tasked with proposing avenues of development for the Carnot system following the results of the first two Carnot phases. This commission given an extremely positive assessment of the operation, stating that "this simple and empowering instrument, subject to regular retrospective evaluation, is a real success, strengthening links between public research and enterprises and accompanying institutes' development". This ten-year review has resulted in the extension of the programme under the "Carnot 3" call.²²

Lastly, in order to scale up the Carnot programme and ensure effective leverage, the "Valorisation – Carnot Institutes" programme is allocated a budget under the Investments for the Future programme. Three calls for proposals²³ have been launched under this framework – one for specific initiatives for small and medium-sized enterprises (SMEs), a second for specific international undertakings and a third to cater to demand from businesses, especially small- and medium sized enterprises and manufacturers (SMEs/SMIs) and intermediate-sized enterprises, and to set up the Carnot springboard programme to help potential new members reach the level required to become a Carnot Institute.

²⁰ or companies engaged in R&D activity on French territory.

²¹The host institution must be a research partner: a public or public-like partner whose main purpose is to carry out research, such as universities, French public scientific and technical research establishments (EPST), French cultural and professional public institutions (EPSCP), industrial or commercial public establishments (EPIC), university hospital centres and institutes, and so on.

²² To date, the Carnot programme includes 29 Carnot Institutes and 9 institutes benefiting from the Carnot springboard programme.

²³ See the dedicated page on the ANR website: <http://www.agence-nationale-recherche.fr/carnot>.

D.4) Astrid and Astrid Maturation

The **Astrid** (French acronym for “specific support for defence research and innovation”) and **Astrid Maturation** programmes are entirely funded by the French Defence Procurement Agency (DGA) and are subject to specific calls for proposals managed by ANR. The programme has a single-stage selection process (full proposal upon submission).

- The Astrid programme aims to foster new avenues of research into themes of dual (civilian and military) interest, exploring hard science or technology issues and leading to technological breakthroughs that could benefit defence, civilian research and manufacturing. The share of the research devoted to defence is one of the selection criteria (potential benefits to be explained in the application).
- The Astrid Maturation programme promotes the application of scientific research carried out via other DGA-funded research funding programmes (eligible projects only), especially the Astrid programme.

The cross-disciplinary dimension of the Astrid programmes features a broad spectrum of key domains in dual-use research.²⁴ Applicants are advised to consult the special call for proposals documents (current and previous years) on the ANR website.

“Building the European Research Area and France’s international attractiveness” component

In addition to international collaborative research projects (PRCI) (see [§C-2.2](#)), the main bilateral collaborative instrument under the ANR Generic Call for Proposals, other types of European and international initiative are planned under the “Building the European Research Area and France’s international attractiveness” component in Work Programme 2017:

- Setting up European or International Scientific Networks (**MRSEI**)
- Springboard-ERC (**T-ERC**)
- Specific European or international calls for proposals (**ERA-NET**, **JPI**, bi- or multilateral calls)
- Strategic bilateral calls, in particular to strengthen cooperation between France and Germany.

D.5) Setting up European or International Scientific Networks (MRSEI)

The objective of the “Setting up European or International Scientific Networks” (**MRSEI**) programme is to give French researchers more ready access to European and international funding programmes (Horizon 2020 in particular). Applications should necessarily be followed up by a submission to a European or international call for proposals.

The objective of this instrument is to reinforce France’s scientific standing by coordinating a proposal submitted to a large-scale European or international call for proposals. Proposals are expected to demonstrate the steps involved in building a scientific network on an internationally recognised level, on topics in any discipline and with a strategic, economic, technological or societal impact. The instrument does not provide funding for research activities.

²⁴ The programmes span a wide range of potential scientific research themes, including: information engineering and robotics, fluids, structures, sound waves and radio waves, nanotechnologies, photonics, materials, chemistry and energy, biology and biotechnologies, man and systems, environment and Earth sciences. The call for proposals has included two interdisciplinary themes since 2013: Big Data and, in 2017, Machine learning and Data-driven AI, and Social Sciences and Humanities.

From 2018 onwards, **MRSEI** is open to rolling applications, with several evaluation and selection sessions each year, to better align with European timetables and to ensure project coordinators receive a quick response to their application.²⁵

D.6) Springboard ERC (T-ERC)

The “Springboard ERC” (**T-ERC**) funding instrument is part of the national strategy for fostering French research and technology and boosting France’s international scientific standing and attractiveness. The aim of the **T-ERC** programme is to give young French or foreign researchers attached to a French public research body the opportunity to submit a new application to a European Research Council (ERC) proposal to the “Starting Grant” or “Consolidator Grant” call while giving them the very best chance of succeeding.

The T-ERC programme will be the subject of two specific calls in 2019 (“Starting Grants” and “Consolidator Grants” respectively). All applicants receiving an “A” in the ERC evaluation are eligible for ANR funding²⁶ and to have their application re-evaluated by ANR.

D.7) Specific calls for proposals for European or international collaborative projects

In conjunction with the various societal challenges, ANR has formed multilateral partnerships with its European counterparts under European initiatives such as **ERA-NET**, **ERA-NET Cofund** and **Joint Programming Initiatives (JPI)**. These initiatives complement the traditional collaborative projects of framework programmes. In this context, emphasis is placed on multi-year prioritisation of European activities and coordination between national and European measures. The precise manner in which these programmes complement one another is determined on a long-term, sector-by-sector basis. There are special call for proposals for ERA-NET, ERA-NET Cofund and JPI.

In addition to its relationships with certain agencies at the European and international level in the generic call (the PRCI instrument), ANR has developed special partnerships with major foreign funding agencies such as BMBF (Germany) and JST (Japan). Initiatives on specific research topics are carried out under bilateral partnerships (NSF – United States) or multilateral partnerships (Belmont Forum, the “CRCNS ORA” call). These initiatives generate **specific calls for proposals**.

Initiatives carried out under European Union programming may involve other such initiatives (ERA-NET Cofund/JPI calls) and involve multilateral initiatives such as those carried out by the Belmont Forum (Belmont Forum/JPI and ERA-NET Cofund/Belmont Forum calls).

ANR arranges special calls for proposals with partner agencies and bodies as part of bilateral collaborations of strategic importance to the French state. French and German collaborations on the following themes are planned for 2019:

- Batteries/energy (MESRI/ANR – BMBF)
- Global security and civil defence (MESRI/ANR – BMBF)
- Cybersecurity (MESRI/ANR – BMBF)
- Antimicrobial resistance (ANR/DFG)
- Artificial intelligence (ANR/DFG)

Calls for proposals for all international initiatives are announced on the ANR website.

Applicants are advised to refer to the ANR website regularly to see the list of open calls (see Tables 2 and 3 below) along with the specific annexes for these calls (submission and eligibility rules) and the up-to-date timetable.

²⁵ See the dedicated page on the ANR website for more details: <http://www.agence-nationale-recherche.fr/suivi-bilan/construction-de-l-espace-europeen-de-la-recherche-et-attractivite-internationale-de-la-france/mrsei-montage-de-reseaux-scientifiques-europeens-ou-internationaux/>

²⁶ Provided they resubmit their application to ERC within the ANR funding period.

E. Annexes

Table 1: Provisional list of bilateral collaborations under the “International Collaborative Research Projects” (PRCI) Generic Call for Proposals

The list of **confirmed** collaborations will appear on the Generic Call for Proposals page of the ANR website at a later date. Applicants are invited to consult ANR’s website, or the foreign partner’s website, before submitting any proposals.

| Country (agency) | Collaboration themes proposed by ANR in 2019 (to be confirmed by the foreign agency) | Research areas |
|------------------------|---|--|
| Brazil (FAPESP) | <ul style="list-style-type: none"> Information and communication technology Social sciences and humanities | Digital sciences Social sciences and humanities |
| Canada (NSERC) | Themes of the Canadian Strategic Partnership Grants for Projects (SPG-P) programme: <ul style="list-style-type: none"> Environment and agriculture Advanced manufacturing Information and communication technology Natural resources and energy | Environmental sciences Energy and materials sciences Digital sciences |
| Hong Kong (RGC) | All disciplinary fields funded by ANR and the Hong Kong agency | All research areas except security |
| Russia (RSF) | <ul style="list-style-type: none"> Mathematics Physics | Mathematics Physics |
| Singapore (NRF) | <ul style="list-style-type: none"> Materials, nanotechnologies, nanosystems Clean, secure and efficient energy Industrial renewal Sustainable mobility and urban systems Information and communication society | Energy and materials sciences Digital sciences Cross-disciplinary themes |
| Taiwan (MOST) | All disciplinary fields funded by ANR and the Taiwanese agency (except security) | All research areas except security |

| Country (agency) | Collaboration themes proposed by ANR in 2019 (to be confirmed by the foreign agency) | Research areas |
|--------------------------|---|--|
| Turkey (TUBITAK) | <ul style="list-style-type: none"> • Marine geoscience • Seismic risk • Marine ecosystem functioning • Social sciences and humanities • Information and communication technology • Energy | Environmental sciences Social sciences and humanities Digital sciences |
| Germany (DFG) | All disciplinary fields funded by ANR and DFG, except social sciences and humanities* | All research areas except social sciences and humanities* |
| Austria (FWF) | All disciplinary fields funded by ANR and FWF | All research areas |
| Luxembourg (FNR) | All disciplinary fields funded by ANR and the Luxembourg agency | All research areas |
| Switzerland (FNS) | All disciplinary fields funded by ANR and FNS | All research areas |

* *Social sciences and humanities are subject to a specific ANR-DFG call for proposals (see Table 2).*

Table 2: Specific bilateral collaborations outside the “International Collaborative Research Projects” (PRCI) Generic Call for Proposals

Applicants are invited to consult ANR’s website, or the foreign partner’s website, before submitting any proposals.

| Country (agency) | Collaboration themes proposed by ANR in 2019 (to be confirmed by the foreign agency) | Challenge |
|--|--|---|
| Germany (BMBF) Energy | ANR is launching a collaboration with the German Federal Ministry for Education and Research (BMBF) on energy. The aim of the initiative is to foster joint French and German research in early-stage energy technology (up to TRL 5), with a focus on energy storage and conversion (batteries, hydrogen and fuel cells, Power-to-X, etc.) and smart grids (including socio-economic and territorial aspects). The call will be open to enterprises in both countries. | Energy and materials sciences |
| Germany (DFG) Social sciences and humanities | ANR and the German Research Foundation (DFG) are launching the 13th joint French and German call for proposals in social sciences and humanities, covering all social sciences AND humanities disciplines. | Social sciences and humanities |
| Germany (BMBF) Global security Civil defence | This collaboration will cover global security and/or civil defence projects. More specifically, it is <u>likely</u> to focus on protection against biological hazards. The aim is to strengthen natural and intentional threat prevention, preparedness, detection, response and recovery. The priority research areas will include technology and (top-down) public policy-making, with extensive input from end users (local institutions, researchers, manufacturers, civil society, etc.). | Security (cross-disciplinary area) |
| Germany (BMBF) Cybersecurity | <i>Discussions with BMBF are ongoing</i> | Security (cross-disciplinary area) |
| Japan (JST) Under the CREST programme | ANR is continuing its partnership with the Japan Science and Technology Agency (JST) under the Japanese CREST programme, focusing on the “Symbiotic Interaction” theme. Applicants will need to apply to both JST and ANR. | Energy and materials sciences Digital sciences |
| Quebec (FRQ) | Marine environments Other areas currently under discussion. | <i>Areas under discussion</i> |

Table 3: Specific calls for proposals for European or international collaborative projects outside the Generic Call for Proposals and bilateral calls.

The list below is a provisional list of initiatives in which France may be involved through ANR. Further initiatives may be added in the second half of 2018 and throughout 2019. Some programmes may also be amended or postponed.

Applicants are therefore invited to consult the general page on ANR's international initiatives and/or the dedicated page for the call in question on ANR's website before submitting any proposals to ANR or its foreign partners.

| Name | Brief description | Research areas |
|--|--|----------------|
| JPND | <p><i>Call for proposals under a potential ERA-NET Cofund for neurodegenerative disease research (JPND)</i></p> <p>The objective of the JPcofuND (JPND) programme is to coordinate research that aims to understand the causes of neurodegenerative disease, develop treatments, and identify the best ways to care for patients affected by these diseases. In 2019, the call for proposals will fund personalised medicine projects for neurodegenerative diseases.</p> | Life sciences |
| ERA PerMed | <p><i>Second ERA-NET Cofund call for personalised medicine</i></p> <p>ERA PerMed is an ERA-NET Cofund that aims to support the international community's efforts through research into personalised medicine. ERA PerMed will launch calls for proposals on the themes set out in the International Consortium for Personalised Medicine (ICPerMed) work programme. The exact theme for the 2019 call has yet to be decided.</p> | Life sciences |
| ERA-CVD | <p>ERA-CVD is the first ERA-NET that aims to fund research into cardiovascular diseases, using a translational and interdisciplinary approach. The theme for the 2019 call is still under discussion.</p> | Life sciences |
| JPI-EC-AMR (JPI AMR) | <p><i>Third ERA-NET Cofund call for antimicrobial resistance</i></p> <p>ERA-NET, via the JPI AMR (Antimicrobial Resistance). The JPI AMR aims to coordinate research into antimicrobial resistance stemming from the misuse and overuse of antibiotics in humans and animals. The call will not be co-funded by the European Commission. The call for proposals will focus on diagnosis and surveillance.</p> | Life sciences |
| HDHL-INTIMIC (HDHL Challenge 2) | <p><i>Third ERA-NET HDHL-INTIMIC call (JPI HDHL)</i></p> <p>A call for proposals for young researchers will be launched in 2018-2019. The theme has yet to be defined.</p> | Life sciences |
| ERA-HDHL (Challenge 2) | <p><i>Fourth ERA-NET call (JPI HDHL)</i></p> <p>A call for proposals will be launched in 2018-2019. The theme has yet to be defined.</p> | Life sciences |
| EJP ON RARE DISEASES | <p><i>Call by the European Joint Programme Cofund on Rare Diseases</i></p> <p>The "open" call for proposals aims to develop international collaborations between researchers working on interdisciplinary research projects. Applications will need to focus on rare diseases as</p> | Life sciences |

| | | |
|---|--|---|
| | defined by the European Union, i.e. those diseases affecting fewer than 5 in 10,000 of the general population. The call for proposals does not cover rare infectious diseases, rare cancers, rare side effects of drugs to treat common diseases, and interventional clinical trials. | |
| EuroNanoMed III (Nanomedicine) | This initiative aims to accelerate technology readiness in nanomedicine at the European level by fostering collaborations between academic researchers, clinicians and manufacturers, and by supporting the transfer of nanotechnologies to clinical settings and/or enterprises. Potential new call under the EuroNanoMed III ERA-NET Cofund. The call will not be co-funded by the European Commission. | Life sciences |
| NEURON III | Fourth NEURON III ERA-NET Cofund call The NEURON ERA-NET supports basic, clinical and translational research in diseases of the central nervous system other than neurodegenerative diseases. In 2019, the call for proposals will cover research into psychiatric and neurological disorder biomarkers. | Life sciences |
| ERACoSysMed | Third ERA-NET Cofund call on systems medicine The call for proposals will cover the application of systems biology approaches in research and clinical practice. The exact theme for the 2019 call has yet to be decided, but it will cover molecular stratification of diseases and/or the interpretation of data on human diseases using in silico modelling tools. | Life sciences |
| ASEAN multilateral call | Infectious diseases and bioeconomy <i>Call likely to be open</i> | Life sciences Environmental sciences |
| CoEN multilateral call Centres of Excellence in Neurodegeneration | The call will support international collaborations between researchers at identified centres of excellence in neurodegeneration in the following countries/regions: Germany, Canada, Spain, the Flemish Region (Belgium), France, the Republic of Ireland, Italy, Slovakia and the United Kingdom. CoEN aims to fund research projects involving unconventional and innovative approaches and projects with a high degree of scientific risk in the field of neurodegenerative diseases. (National Neurodegenerative Diseases Plan) | Life sciences |
| CRCNS multilateral call 2019 | Collaborative Research in Computational Neuroscience The CRCNS programme supports research in computational neuroscience. Its aim is the understand healthy and diseased brain function and structures and to develop treatment and data-sharing solutions in neuroscience. The 2019 joint call for projects will involve the following partner countries: France, the United States, Germany, Israel and Japan. | Life sciences Digital sciences |
| Multilateral call under the JPI JPND | Neurodegenerative diseases working groups | Life sciences |

| | | |
|---|---|---|
| Blue Bio | Call for proposals under a potential ERA-NET Cofund on Blue Growth (JPI Oceans) Marine resource exploitation, aquaculture, blue technologies | Environmental sciences |
| BiodivERsA | Multilateral call under the BiodivERsA ERA-NET Cofund “Effect of biodiversity changes on animal, human and plant health” | Environmental sciences |
| Multilateral call under the Belmont Forum and Future Earth | Climate change theme Ocean health (ecosystems, etc.) | Environmental sciences |
| Multilateral call under the JPI FACCE | Joint call from the ERA-GAS, SusAn and ICT-AGRI 2 ERA-NETs “Novel technologies to reduce GHG emissions from agriculture” | Environmental sciences |
| Multilateral call under the JPI Oceans | Ongoing initiatives on microplastics | Environmental sciences |
| Multilateral call under the JPI FACCE | Sustainable agriculture theme ICT-based agricultural systems: ICT-Agri 3 | Environmental sciences Digital sciences |
| Joint call by Belmont Forum, JPI FACCE and LEAP-AGRI ERA-NET Cofund | Sustainable agriculture theme Food security and climate change | Environmental sciences |
| Joint multilateral call by Water JPI, JPI Oceans and JPI AMR | Climate change theme Emerging contaminants | Environmental sciences |
| Joint multilateral call by JPI Climate and JPI Oceans | Climate change theme Role of oceans in climate change | Environmental sciences |
| PRIMA | Second call for proposals under the Partnership on Research and Innovation in the Mediterranean Area Article 185 (themes: water, agriculture, food technology, see ANR website) | Environmental sciences |
| CHIST-ERA III | Second call under the CHIST-ERA ERA-NET Cofund | Digital sciences |
| FLAG-ERA III | First call under the FLAG-ERA ERA-NET Cofund | Digital sciences |
| QuantERA | Second ERA-NET Cofund call for quantum technologies | Digital sciences |
| CoBioTech | Second ERA-NET Cofund call Industrial biotechnology | Energy and materials sciences Environmental sciences |

| | | |
|-------------------------------|---|--------------------------------|
| Solar 2 | <i>First call under the Solar ERA-NET Cofund</i> | Energy and materials sciences |
| ERA-MIN 2 | <i>Second call under the ERA-NET Cofund</i> Non-energy, non-agricultural raw materials. | Energy and materials sciences |
| SOLAR-DRIVEN CHEMISTRY | Photochemical conversion of CO ₂ , H ₂ O and other small hydrogen-based molecules, hydrocarbons and platform molecules. The call covers solar fuels, i.e. solar energy stored directly as chemical energy in manipulable molecules (i.e. H ₂) and, eventually, direct photo-induced reactions, i.e. reactions that do not involve an electrolysis or electrochemical reduction phase. | Energy and materials sciences |
| HERA JRP Public Spaces | Humanities in the European Research Area (HERA) ERA-NET Cofund (fourth for the network, first for us) | Social sciences and humanities |
| JPI Cultural Heritage | <i>Potential call under the JPI CH</i> | Social sciences and humanities |
| GENDER-NET Plus | <i>Achieving gender equality in research and innovation</i> The GENDER-NET Plus collaborative research programme aims to promote gender equality within the UN Sustainable Development Goals (SDGs) (and in particular SDG 3 “Good Health and Well-being”, SDG 9 “Industry, Innovation and Infrastructure”, and SDG 13 “Climate Action”). | All areas |

Table 3a: International initiatives additional to the multilateral initiatives listed in Table 3

The calls and initiatives detailed below are not subject to ANR funding. However, they are supported by ANR, and French entities and organisations are encouraged to take part.

| Name | Brief description | Research areas |
|---|--|--------------------------------|
| Thematic Annual Programming (TAP) – call under the Water JPI | <p>TAP Water: “Developing Approaches for Assessing and Optimising the Value of Ecosystem Services”</p> <p>The goal is to develop a European network of projects, funded by national calls, that aim to provide a better understanding and assessment of ecosystem services and could include research on the ecological functioning of aquatic, riparian and groundwater ecosystems.</p> <p>Teams securing funding at the national level (JCJC, PRC, PRCE) will be invited to join an international cluster coordinated by the Water JPI. Projects should foresee 7-10% of the total budget to be allocated to these networking activities.</p> | Environmental sciences |
| CONCERT EJP | <i>Discussions ongoing</i> | Life sciences |
| AMR Plan | <p>French/German collaboration plan on antimicrobial resistance</p> <p>In partnership with the German Centre for Health Research and the German Research Foundation (DFG)</p> | Life sciences |
| Multilateral call under the Trans-Atlantic Platform (T-AP) form B3:D33 | <p>Social innovation calls</p> <p><i>Discussions ongoing</i></p> | Social sciences and humanities |

Table 4: Partnerships and co-funding under Work Programme 2019

All partnerships and co-funding arrangements may be modified or supplemented. Applicants are invited to consult the ANR website before submitting any proposals.

| Partner | Main themes that may be covered by co-funding | Research areas |
|--|--|---|
| AFB French Biodiversity Agency | Focus on part of the national EcoPhyto II plan, including area 2: “Improving knowledge and tools for the future and fostering research and innovation” | Environmental sciences |
| CNSA National Solidarity Fund for Autonomy | Themes related to ageing, autonomy and quality of life | Life sciences Social sciences and humanities |
| DGA Defence Procurement Agency | Civil and military dual-interest themes (energy, global security and cybersecurity, etc.) | Energy and materials sciences Digital sciences Security (cross-disciplinary area) MALIN Challenge Astrid and Astrid Maturation programmes |
| DGOS General Directorate for Care Provision | Translational health research (synergy between fundamental research and clinical research) | Life sciences and associated cross-disciplinary areas |
| MAA French Ministry for Agriculture and Food | Agri-ecological plan for France, including EcoPhyto | Environmental sciences ROSE Challenge |
| MTES French Ministry for the Ecological and Inclusive Transition | Innovative projects to support public policy-making, reshape climate change policies, and determine how to implement these policies in the context of the ecological transition. | Environmental sciences |
| SGDSN General Secretariat for Defence and National Security | Global security and cybersecurity | Security (cross-disciplinary area) |