



# FONDO ITALIANO PER LA SCIENZA

*FIS 2 CALL*

*Directorial Decree no. 1236 of 1 August 2023*

***EVALUATION GUIDELINES***

## SUMMARY

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## 1 INTRODUCTION

The Italian Science Fund (FIS) promotes the development of fundamental research, in accordance with established European procedures, through the competitive allocation of grants modelled on the *Starting*, *Consolidator* and *Advanced Grant* schemes of the *European Research Council* (ERC).

The FIS 2022- 2023 Call (hereinafter also referred to as "*FIS Call 2*"), referred to in Directorial Decree no. 1236 of 1 August 2023, funds three-year research projects of high scientific content, in line with the ERC *Starting*, *Consolidator* and *Advanced Grant* funding schemes, carried out by independent research groups coordinated by a *Principal Investigator* (PI) at an organization (*Host Institution*) located in the territory of the Italian State, chosen by PI as the primary location of the activity related to the research project.

These Evaluation Guidelines are drawn up by the CNVR in accordance with article 12, paragraph 23 of the FIS 2 Call and contain the necessary methodological and operational indications to ensure the uniformity of the scores and judgments awarded by the Evaluation Committees (from now on: CdV) responsible for the technical and scientific evaluation.

The FIS 2 Call consists in a competitive procedure based on the Italian Science Fund, with a budget of **€ 327,860,000.00** for the financing of research projects, of which € 163,930,000,00 allocated to finance the *Starting Grant* scheme, € 81,965,000.00 allocated to finance the *Consolidator Grant* scheme and € 81,965,000.00 to finance the *Advanced Grant* scheme.

Each PI guarantees open access (free online access for any user) to all peer-reviewed scientific publications related to the results obtained within the project. For this purpose, the PI must comply with the obligations provided for by art. 20, paragraph 1 of the Call on "*Open access*".

Project proposals may be submitted within the following three research macro-areas, identified by the European Research Council (ERC):

- Life Sciences (LS);
- Physical Sciences and Engineering (PE);
- Social sciences and humanities (SH).

The macro-sectors above are divided respectively into the sectors listed in Annex 1 of the Call.

The evaluation of the projects will be carried out according to the phases foreseen in the Call.

The CdVs play a crucial role in this process: their members are selected by the National Research Evaluation Committee (CNVR) on the basis of proven and specific expertise in the relevant field. Within each CdV, the CNVR identifies a coordinator with the function of President (Chair).

CdVs may make use during the *PHASE 2 - Project-based technical-scientific evaluation*, if necessary, of external auditors (ETS), in the maximum total available number communicated by the Ministry, with the task of providing the necessary elements for the evaluation of the project proposal.

The names of the CdV members and the external auditors together constitute the list of evaluators that will be made public at the end of the entire procedure provided for by the Call.

The *single-blind peer review* provided for in the FIS 2 call is the most common form of peer review in the world of scientific research and consists of that process whereby the evaluator knows the name of the evaluated, but the evaluated does not know the name of the evaluator. The anonymity of the reviewer (meaning, in general terms, the members of the Committees) allows them to participate in the evaluation process with full responsibility, free from potential forms of conditioning.

The committees responsible for the *ex ante* evaluation shall be provided with the final scientific and technical report on the scientific results achieved by the implementation of the project. If the CDV considers the scientific results totally unsatisfactory, the Ministry can proceed with the withdrawal of the contribution.

The CDVs and external auditors operate only through appropriate telematic tools prepared by the MUR through the Inter-university Consortium CINECA and may not take part, in any way, in the activities of projects submitted under the Call.

At the time of acceptance, each member of the CDVs and each external auditor signs a *Code of Conduct* by which, pursuant to art. 46 and 47 of the D.P.R. (Decree of the President of the Republic) 28 December 2000, n. 445, declares the absence of conflicts of interest and the respect of the deontological principles and of confidentiality.

The coordination of the Evaluation Committees is ensured by the CNVR, which meets the CdV at the *kick-off meetings* and, where appropriate, collaborating and coordinating their work. The members of the CNVR sign a *Declaration of Commitment* through which they confirm the absence of conflicts of interest and commit themselves to respect the principles of ethics and confidentiality.

The Office of the responsible of the procedure assures the technical-administrative support of the CDVs.

## 2 EVALUATION OF PROPOSALS

The evaluation of project proposals consists of:

- a technical-scientific evaluation;
- a financial adequacy evaluation.

The technical-scientific evaluation of the project proposals is carried out by Evaluation Committees (CdV), one for each of the twenty-eight ERC research fields, composed of a maximum of 7 members, depending on the heterogeneity of the field and the number of project proposals submitted for each field.

**The CDVs always operate collectively** according to *peer review* procedures, inspired by the evaluation and deontological principles applied by the European Research Council. Peer review is the method to evaluate the validity, quality and originality of a scientific work through a judgement made by the expert members of the Committee.

The collegial work of the Committee, according to the canons of the peer review, ensures the integrity of the content of research products responding to the need to ensure, on the one hand, a careful selection of scientific content, on the other hand the correct allocation of funds invested in research in order to reward excellence, innovation and impact.

Each CdV, using the CINECA IT system dedicated to the Call, draws up the evaluation sheet of each project in full autonomy and anonymity, according to the methods described below.

**The evaluation resulting from the collective work of the committees will be communicated to the PI anonymously.**

The meetings of CDVs are arranged by formal convocation by the Ministry and, in accordance with the provisions of art. 12, paragraph 9 of the Call, are considered validly constituted if half of the members plus one are present.

The Coordinator of the CDV organizes the activities of the Committee, respecting the procedural deadlines. In cases of need and urgency, the Coordinator may convene the meeting of the Committee giving immediate notice to the Ministry.

The CNVR, as part of the coordination tasks provided for in article 12, paragraph 24 of the Call, monitors the evaluation procedure and its timing by defining with each Chair the program of activities.

The technical-scientific evaluation is divided into two distinct phases:

- PHASE 1 - preliminary technical-scientific evaluation (synoptic);
- PHASE 2 - Project-based technical-scientific evaluation.

## 2.1 PHASE 1 - Preliminary technical-scientific evaluation

Each project proposal is assigned to the competent CdV, with reference to the ERC sector listed in Annex 1 of the Call indicated by the Principal Investigator (PI) as the main scientific area of the project of which it is the holder.

In the PHASE 1, the summary project proposal, the *curriculum vitae* and the PI *track record* (part B of the project proposal) will be evaluated, according to the criteria listed below.

STRUCTURE OF THE PROPOSAL	ATTRIBUTABLE SCORE
<b>Project synopsis</b> - <b>Quality of the proposal</b>	1 - 10
<b>Curriculum vitae</b> - <b>Scientific autonomy (for Starting Grant)</b> - <b>Leadership in the research field (for Consolidator and Advanced Grant)</b>	1 – 10
<b>Track record (for Consolidator and Advanced Grant, covering the last 10 years)</b> - <b>Publications</b> - <b>Awards</b> - <b>More (<i>below</i>)</b>	
<b>Overall assessment</b>	<b>Max 20</b>

Each CdV, using only the CINECA IT platform dedicated to the Call, draws up, collegially and in full anonymity, an evaluation form (*ESR - Evaluation Summary Report*) expressing, for the elements indicated in the table above, a numerical score, on a decimal basis, corresponding to the following summary judgments:

- 1-7 NOT COMPETITIVE:** not competitive, serious flaws and/or too many;
- 8 GOOD:** strong but with some moderate weaknesses;
- 9 VERY GOOD:** extremely strong with at most minor weaknesses;
- 10 EXCELLENT:** fully convincing, without weakness.

The elements to be considered in the assignment of the numerical score above are the following:

**Quality of the proposal** - scientific merit and innovative nature of the project from the international point of view, with particular regard to:

- relevance of the project to the strategic theme and the reference sector or to highly innovative interdisciplinary themes;
- clarity of research questions and originality of project objectives and/or methodology;
- relevance and positioning of the project with regard to the state of the art in the specific scientific area;
- consistency and originality of the methodology adopted in relation to the objectives.

***Curriculum vitae, track record:***

- in the *Starting Grant* scheme, the *Junior PI* must prove that s/he has the potential to achieve full independence in research activities and give evidence of her/his scientific maturity. The *Junior PI* must be able to show a promising track record and, to this end, will be considered:
  - the publications, as lead author, in leading international and peer-reviewed scientific journals, including interdisciplinary publications. Scientific publications include peer-reviewed articles in scientific journals, books, chapters in books, curatorship subject to peer review mechanism. Reported monographs (with *peer review* procedure) are also scientific publications;
  - publications, in leading international *peer-reviewed* scientific journals as co-author, of *peer-reviewed* contributions or monographs (essays that deepen and try to be exhaustive on a given subject. By way of example, but not exhaustive: reviews of individual works, short catalog sheets without independent scientific content, abstracts are not meant monographs) relevant to the research field of the project proposal;
  - awards related to scientific activity and international recognitions;
  - **MORE:**
    - invited presentations at prestigious conferences, including international ones, and at university-level institutions of high international standing;
    - patents;
    - experiences abroad and international collaborations;
    - ownership of other funding and related time commitment so as to evaluate the possibility of dedicating to the project the minimum time commitment required by the Call (50% of the months/person in the *Starting Grant* scheme);
- in the *Consolidator Grant* scheme, *Consolidator PI* must prove that s/he has the potential to achieve full independence in research activities and must give evidence of her/his scientific maturity; the *Consolidator PI* must be able to show a promising track record and, to this end, will be considered:

- publications as lead author in leading international peer-reviewed scientific journals, including interdisciplinary publications;
- publications in leading international peer-reviewed scientific journals as co-author, contributions to peer-reviewed collections or monographs relevant to the research field of the project proposal;
- awards related to scientific activity and international recognitions;
- **MORE:**
  - invited presentations at prestigious conferences, including international ones, and at university-level institutions of high international standing;
  - patents;
  - experiences abroad and international collaborations;
  - ownership of other funding and related time commitment so as to evaluate the possibility of dedicating to the project the minimum time commitment required by the Call (40% of the months/person);
- in the *Advanced Grant* scheme, *Senior PI* in addition to being scientifically independent must have a profile that identifies her/him as a leader in the field of research in which the project proposal is located; the *Senior PI* shall show in the track record that s/he has achieved appropriate results to the relevant sector and corresponding to at least one or more of the following benchmarks:
  - 10 publications as lead author (or as co-author, for scientific fields where alphabetical order of authors is considered the norm) in leading international *peer-reviewed* scientific journals, including interdisciplinary ones;
  - 3 important research monographs, concerning research fields in which the publication of monographs is considered the norm;

For the purposes above, the following may be considered, singularly or in combination:

  - a. international recognition such as scientific or artistic awards, admission to renowned academies, or commissions for works (e.g. architectural or engineering design);
  - b. **MORE:**
    - 5 patents;
    - 10 invitations to prestigious international conferences and at university-level institutions of high international standing;
    - research projects, whether national or international, conducted under the guidance and responsibility of the Senior PI, either as project coordinator or unit manager;
    - prestigious international conferences or congresses where the Senior PI has been involved as a member of the steering or organizing committee;
    - recognised leadership in industrial innovation;
    - ownership of other funding and related time commitment so as to evaluate the possibility of dedicating to the project the minimum time commitment required by the Call (30% of the months/person in the *Advanced Grant* scheme);
- the ability of the PI to manage, conduct and implement the proposed project with managerial qualities appropriate to the specific dimensions of the project.

The sum of the scores assigned for each evaluation element in the table above is the overall score that is attributed to the proposals in the PHASE 1 of technical-scientific evaluation.

Proposals which fail to achieve a total score of at least 18/20 will not be admitted to the subsequent technical-scientific evaluation phase (*PHASE 2 - Project-based technical-scientific evaluation*). For the achievement of the above-mentioned score, rounding will not be taken into account; as such, the minimum score to access the next evaluation phase is to be considered **18.00/20.00**.

A number of proposals per ERC sector and per ERC sub-sector will be admitted to PHASE 2 of the evaluation; in each case, less than three times the number of proposals eligible for the maximum budget.

However, proposals that have obtained a score equal to that obtained by the last candidate usefully placed for admission to PHASE 2 have access to the project-based technical-scientific evaluation.

## 2.2 PHASE 2 - Project-based technical-scientific evaluation

In the PHASE 2, the project proposal will be evaluated in its entirety (part C of the proposal), according to the criteria listed below

STRUCTURE OF THE PROPOSAL	ATTRIBUTABLE SCORE
<b>Scientific proposal</b>	<b>TOTAL 20</b>
a) degree of innovativeness of the proposed study compared to the state of the art in the relevant field, the ambition and feasibility of the research project ;	1 – 5
b) the PI's intellectual capacity, creativity, excellence and scientific skills required to successfully execute the proposed project;	1 - 5
c) Appropriateness of methodology, and degree of interdisciplinarity, where relevant;	1 – 5
d) potential impact, including spill-over effects on the host organisation, on society and the territory.	1 - 5
<b>Human resources</b>	<b>TOTAL 5</b>
- adequacy of the research team composition and time commitment specified .	1 - 5
<b>Business plan</b>	<b>TOTAL 5</b>
- adequacy of project planning and management as to the related activities.	1 - 5
<b>Maximum total</b>	<b>Max 30</b>

Each CdV, using only the CINECA IT platform dedicated to the Call, draws up, collegially and in full anonymity an evaluation form (*ESR - Evaluation Summary Report*) on the basis of the table above.



The evaluation form highlights the strengths and weaknesses of the project and expresses, for each evaluation element reported in the table above also in terms of scientific-cultural impact and knowledge advancement, a numerical score and a summary motivation, as provided in the IT platform (min 300 and max 500 characters per section).

The numerical score accompanied by the brief motivation is assigned on the following parameters:

- 1-2 - FAIR:** not very convincing, present important weaknesses and/or too many
- 3 - GOOD:** strong but with some moderate weaknesses;
- 4 - EXCELLENT:** extremely strong with at most minor weaknesses;
- 5 - OUTSTANDING:** fully convincing, groundbreaking.

Therefore, the auditor is called to motivate the scores, assigned also in aggregate form, taking into account the following.

### Scientific proposal

- *Does the research project address major challenges in the relevant subject area? To what extent do the objectives exceed the state of the art, for example through new concepts and perspectives of interdisciplinary development?*
- *Does the PI have the scientific experience and expertise to conduct and implement the project? To what extent has s/he shown creativity in proposing and carrying out pioneering research?*
- *Does the project develop an innovative methodology? To what extent is the proposed scientific methodology feasible? To what extent is the proposed research methodology appropriate to achieve the scientific objectives?*
- *To what extent can the proposed research be considered "high risk/high gain"? Will the project have an impact on the scientific community? How can it strengthen it? Can the project contribute to social welfare and/or cultural development and the subsequent advancement of knowledge? Does the project propose measures to disseminate knowledge and its results?*

### Human resources

- *To what extent is the project feasible and appropriate in terms of the composition and complementarity of the research team?*
- *To what extent is the time commitment of the research team members consistent with the objectives and activities of the project? Is the PI strongly committed to the project and does s/he demonstrates the willingness to devote an adequate amount of time to the project<sup>1</sup>?*

### Business plan

- *Is the business plan adequate and relevant to the temporal distribution of the activities and to the resources required (consumables, instrumentation, management), also in reference to the milestones indicated?*

During the PHASE 2 CdVs may make use, if necessary, of external auditors (ETS). External auditors support the activity of the CDV providing the necessary elements for the collegial evaluation of the project proposal.

The external auditors are chosen by each committee through the CINECA IT platform, drawing on the following databases:

- Clarivate/Clarivate – search by Keywords;

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<sup>1</sup> The time commitment of the PI in the project, which cannot be less than 50% under the *Starting Grant* scheme, 40% under the *Consolidator Grant* scheme and 30% under the *Advanced Grant* scheme

- Elsevier/Elsevier – search by name /Elsevier – search by Keywords;
- register of scientific experts managed by the MUR (REPRISE);
- lists of evaluators available on national and international databases;
- lists of reviewers filed with the MUR.

Each ETS shall be promptly selected by CdV.

If an external auditor does not accept the scientific evaluation of the project within 7 days of being contacted, s/he automatically lapse from being assigned to the project for which he has received the invitation.

Upon acceptance of the invitation, the external auditor has 25 days to complete the project evaluation. After this period, the external auditor who has not evaluated, despite a special reminder, automatically lapses only from the evaluation of the project that has not completed and s/he is not entitled to the payment of the fee.

In order to establish the ranking list, the score is composed by the sum of the score obtained in *PHASE 1 - Preliminary technical-scientific evaluation* and in *PHASE 2 - Project-based technical-scientific evaluation*.

No more than **twice the number of projects eligible for the maximum budget** will be admitted to the evaluation of proposal financial adequacy. However, proposals that have obtained a score equal to that obtained by the last candidate usefully placed for admission to this evaluation shall be eligible for the financial adequacy evaluation.

This number will be provided by the MUR support Office to each cdv.

### **3 THE CENTRAL ROLE OF THE CDV COORDINATOR IN THE EVALUATION PROCESS**

The art. 12, paragraph 8 of the Call provides that “*Within each Evaluation Committee, the CNVR identifies a coordinator to act as Chairman*”.

The role of Chair of the CDV is fundamental for the completion of the evaluation process.

The Chair organizes the activities of her/his panel, in accordance with the times defined by the Administration, and coordinates with the CNVR.

The Chair is responsible for ensuring the homogeneous and uniform evaluation of all project proposals relating to the ERC sector of competence, in compliance with the provisions of this document.

The Chair, being specifically identified by the CNVR, holds with it a close collaboration relationship.

For each project proposal assigned to her/his CDV the Chair draws up, using the IT tools prepared on the CINECA platform, the official document in the acts of the procedure, named *Evaluation Summary Report - ESR*.

In order to consider the ESR as definitive, the "*consensus*" of all the CdV members must be acquired during the collective discussions; in this regard, it is specified that it is a task of the Chair to verify that the meetings are validly constituted in accordance with the provisions of art. 12, paragraph 9 of the Call (presence of a number of CdV members equal to half plus one).

For each proposal assigned to her/his CdV the Chair, with the support of all CdV members, verifies:

- the consistency of the score with the judgment;
- the consistency of judgment with the project proposal.

#### 4 FINANCIAL ADEQUACY EVALUATION AND FUNDING DEFINITION

Following the technical-scientific evaluation carried out by each CdV referred to in the preceding paragraphs, no more than **twice the number of projects eligible for the maximum budget** will be admitted to the “*Evaluation of financial adequacy*”. However, proposals that have obtained a score equal to that obtained by the last candidate usefully placed for admission to this evaluation shall be eligible for the financial adequacy evaluation.

The evaluation of financial adequacy is carried out by the CNVR that accesses the relevant documentation and, in accordance with the final scores awarded to the individual proposals, prepares the final ranking list of projects for each sector and each funding scheme.

After analysing the financial requests put forward for each proposal, and on the basis of the indications provided by the CdVs following the technical-scientific evaluation, CNVR analyses the required budget for each proposal and determines the appropriate cost and the amount of funding that may be awarded, including by remodelling the costs set out in the proposal, for each costs item taking into account the following principles:

- guarantees the minimum contribution foreseen by the Call:
  - 1,2 million for the *Starting Grant* scheme;
  - 1,5 million for the *Consolidator Grant* scheme;
  - 2,0 million for the *Advanced Grant* scheme.
- it is not possible to reduce the cost of PI contracts assumed by HI for the duration of the project.
- it is not possible to set percentages of "Overheads" other than 20% of the staff costs considered eligible;
- it is not possible to redefine the incentive for the Host Institution equal to 10% of the cost of the project, if the PI is not already temporary employees/permanent employees;

In particular, due to the fairness opinion expressed by the CNVR, the following are possible:

- recognition of differentiated funding percentages;
- exclusion of projects from the ranking list under Art. 14 of this notice, on the proposal of the CNVR, due to a clear and obvious mismatch between the scientific value and the assessment of the project's appropriateness.

#### 5 EQUAL MERIT

At the end of the evaluation process, if two or more projects score *ex aequo*, for the purposes of eligibility for funding the project proposal submitted by the candidate with the lowest academic age prevails.

## 6 FINAL REQUIREMENTS

In compliance with the rankings, divided by sector and funding scheme, the MUR provides for the publication of the decrees approving the same.

The decrees approving the rankings, broken down by sector and by funding scheme, according to the order of score, contain the indication:

- of projects eligible for funding, until the available resources are exhausted;
- of eligible projects but not eligible for funding, because of the exhaustion of resources.

The decrees approving the rankings referred to in the preceding paragraph will contain the following annexes:

- the list of projects which, at the end of *Phase 1 - Preliminary technical-scientific evaluation*, are not admitted to *Phase 2 - Project-based technical-scientific evaluation*;
- the list of projects excluded from funding because they did not achieve the minimum eligibility score to be admitted to a grant at the end of *Phase 2 - Project-based technical-scientific evaluation*.