



European Research Council

# ERC Grant Schemes

## Guide for Peer Reviewers

Applicable to the ERC Starting Grants

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**European Commission**  
FP7 Specific Programme IDEAS





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## 1. Introduction

The selection of scientific and scholarly proposals for funding by the ERC is based strictly on peer review with excellence as the single criterion. ERC uses a typical panel-based system, in which panels of high-level scientists and/or scholars make decisions either autonomously, or based on the findings of specialists external to the panel - the referees.

### *The "Rules"*

The ERC Scientific Council (**ERC-ScC or ScC**) has established and agreed a document, adopted by the Commission as a legal document, namely the "**Rules on proposal submission, evaluation and award procedures relevant to the Ideas Specific Programme**" ("Rules"). This document defines number of high-level requirements on the processes put into operation by the ERC.

### *The Work-Programme*

The ERC-ScC has also established and agreed the **Work-Programme (WP)**, which was adopted by the Commission as a legal document. The WP in particular, defines the parameters of the Call for Proposals. More specifically, it defines the call deadline(s), the call budget, it stipulates that a two-stage peer review procedure will be applied, it sets the framework for budgetary decisions, and it specifies the review criteria.

### *This document*

This document complements these legal texts. It specifies in more detail the review process and its inputs and outputs, and it defines the responsibilities of the participants in the process. It detailed the "Rules" in a number of important issues, such as: a clarification of the methodology as regards inter-disciplinary proposals; practical guidelines for the management of conflict of interest; and a clarification on budgetary inter-panel (see comments of P. Haertwich) and inter-domain issues.

## 2. Domain and Panel structure

The ERC has a mandate to implement a bottom-up, investigator-driven approach to funding. Consequently, the principal objective of the peer review system is to select the best science, independent of its discipline and independent of the particularities of the review panel structure. The panel structure is, in essence, no more than an operational instrument.

In this context, the ERC has established a panel structure consisting of 20 panel titles, grouped in three domains, covering the entire spectrum of science and scholarship in the remit of the ERC. In defining the structure, a forward-looking approach was taken and narrow disciplinary definitions have been avoided. The treatment of inter-disciplinary proposals is "mainstreamed", so that there is no special interdisciplinary panel (see also the section on inter-disciplinarity).



The 20 panels are grouped in three domains:

- Social sciences and Humanities (SH)
- Life sciences (LS)
- Physical and Engineering Sciences (PE)

The panel structure, with corresponding indicative keywords, is presented in [Annex 2](#).

### **3. Panel chairs, panel members, panel evaluators, and referees**

#### ***The panels***

An ERC panel, for a particular review session, will consist of a chairperson plus approximately 10 members, and a certain number of panel evaluators in due proportion to the number of applications assigned to a panel. The chair, the members, and the panel evaluators have been selected by the ERC-ScC on the basis of their excellent scientific reputation. They make a significant commitment of their time to the ERC review process.

**Panel chairs and members** perform the following tasks:

1. Familiarisation with all proposals in their panel in preparation for the panel meetings
2. Individual review of a subset of those proposals – by electronic means – in preparation for the panel meetings
3. Attendance and participation to the panel meetings

**Panel chairs** have additional tasks:

1. Chairing the panel meetings
2. Assignment of proposals for individual review, in coordination with the ERC
3. Participation in a meeting of panel chairs to consolidate the results of different panels. Panel chairs can deputise this task to one of the members.

**Panel evaluators** make their contribution by a remote review of a subset of proposals allocated to their panel. They do not attend the panel meetings.

1. The name of the panel chair is publicly available, specified by panel. The names of panel members are published in the form of a consolidated alphabetical list. This information is published before the deadline of the Call. The list of panel evaluators will be published at the end of each year. According to article 17§5 of the EC rules for participation and the ERC rules for proposal submission (experts assigned to individual proposals), it is foreseen that the names of the experts that have assisting the Commission are published once a year. What is the justification to have derogation for the panel chair and for the panel members which have to familiar themselves with the proposals and carry out individual reviews of a subset of proposals?

#### ***The referees***

In addition to the panels, the ERC works with referees, scientists who bring to bear the necessary *specialised* expertise. Referees work remotely and deliver their individual reviews by electronic means. Because of the specialised nature of the work, the



demands on the time of individual referees will be comparatively smaller (of the order of a day). The names of the referees will be made public at the end of each year.

The assignment of referees to proposals is carried out under the responsibility of the panel chairs. There is no limitation on the participation of any member of the international scientific community to act as referee, subject to the approval or accreditation of the person in question by the ScC.

### ***The appointment letters***

In all cases, the relationship between the ERC DIS and the reviewers is defined by a written and signed agreement, the Appointment Letter. Signature of this agreement by the reviewer indicates acceptance of the conditions regarding confidentiality, conflict of interest, and use of personal data by the ERC. ERC DIS can not make available proposals to a reviewer who has not been officially appointed (see ERC model of appointment letter in the ERC rules for proposal submission)..

## **4. The approach to inter-disciplinary proposals**

### ***Inter-disciplinarity versus cross-panel***

The broad definition of the panels allows many inter-disciplinary proposals to be treated within a single panel (mainstreaming of inter-disciplinarity). However, the scientific subject matter of some proposals will cross panel boundaries. The key question is thus not whether a proposal is inter-disciplinary, but whether the full expertise required for its review is available in one panel.

### ***Inter-disciplinarity of the research***

When dealing with inter-disciplinary proposals, it is important to point out that the key element, as far as peer review is concerned, lies in the inter-disciplinarity of the proposed activities themselves, rather than in the possible inter-disciplinary use of its results. This view on inter-disciplinarity, while slightly restrictive, facilitates allocation of proposals and their treatment by panels.

### ***Making the panels responsible***

The responsibility to ensure that inter-disciplinary proposals receive equal and fair treatment therefore rests fundamentally with the panels to which they are allocated. (We note that it would not be logical to allocate certain proposals to multiple panels, as this would introduce unequal treatment as a function of panel structure).

The structure of the evaluation criteria, defined in the WP, allows the panels to fulfil this responsibility. In the first stage of the review panels can come to clear decisions on the potential of the Principal Investigator, and the quality of the research proposed (ground-breaking nature, potential impact and feasibility of methodology), even while recognising that certain scientific aspects of the proposals may not be fully covered by the panel's specialities. (Note that the same may be true for proposals that fall entirely within the panel). The panel therefore plays a somewhat generalist role.

### ***The contribution from remote reviews***



In the second stage of the review, proposals will be assigned to referees – working remotely – to take advantage of the best spectrum of specialised expertise. Their reviews will then form a basis for the panel discussions.

This differs from the role of the first stage panel evaluators who are assigned to a specific panel and whose remote reviews will be also used for the panel discussions. As it is the case for panel members panel evaluators contribute to the generalist role of the panels.

### ***Monitoring***

Meanwhile, ERC is putting in place provisions to allow review and fine-tuning of the approach in the future, in particular by identifying and tracking of inter-disciplinary proposals.

## **5. Distribution of budget: main principles**

### ***Initial allocation to the domains***

In the Work Programme (WP), the ERC-ScC has defined, in the Work-Programme (WP), a distribution of the total call budget between the three domains (PE 45%, LS 40%, SH 15%). In addition, the ERC-ScC has decided to keep a fraction of the budget, up to 20%, **as a reserve budget**. This mechanism results in a **nominal budget** per domain (45% of 80%, 40% of 80%, 15% of 80% respectively). See comments of Peter Haertwich.

### ***Allocation and arbitrage between panels within each domain***

Within each domain, the distribution of budget between panels will, in the first instance be based on demand, where the demand of a panel is defined in terms of the total requested budget of the proposals allocated to that panel. At the end of the review process, this will be subject to a discussion between representatives of the panels concerned, with due attention paid to the quality of the proposals. These decisions are part of the peer review process, and are taken by the peer reviewers in a fully autonomous and independent way. Each domain will, therefore, produce a list of proposals recommended for funding (within its budget allocation) and a domain-reserve list.

### ***Arbitration between the domains***

Subsequent to the peer review the ScC will allocate the reserved budget to the domains, on the basis of a discussion which will take into account several factors, such as the results per domain, quality of proposals, and inter-disciplinarity. This allocation by the ScC is a strategic decision, which is taken subsequent to the peer review process and is not part of it. In particular, these ScC decisions will not affect the ranking of individual proposals on any of the lists of recommended and reserve proposals.

## **6. Details of panel budgets**

***For stage-1: from nominal to virtual panel budget***



The WP defines that the success-rate of second stage proposals should be a factor 2. In that context, in the first stage, each panel will be allocated a **virtual budget**, which is the appropriate multiple of its nominal budget. In stage-1, there is no reserve.

***In stage-1: decisions are binary***

In stage-1, the panel thus makes binary decisions:

1. The list of proposals that should go forward to the second stage, up to the virtual budget. Their final scores (allocated by the panel) must be above the success threshold.
2. Proposals ranked outside the virtual budget must be rejected. As a consequence, their final scores must fall below the success threshold.

***In stage-2: a retained, reserve and rejection list per panel***

In the second stage, panels will decide between "fundable" and "not-fundable" proposals, and decide on a ranking of the fundable ones. There are three lists:

1. The panel-retained list of fundable proposals ranked inside the nominal budget. **These will be subject to a selection procedure by the ScC** and subsequent granting procedures by ERC DIS. Their final scores (given by the panel) must be (well) above the success threshold.  
The panel-reserve list of fundable proposals ranked outside the nominal budget. These are considered as reserve. These proposals on the panel-reserve list will be subject to the procedure outlined below. Their final scores must be above the success threshold.
2. Not-fundable proposals will be subject of a rejection procedure by the ERC DIS. Their final scores must be below the success threshold.

***Consolidation of the panel results into domain results***

The panel-reserve lists for all of the panels within a domain must be consolidated into a single domain-reserve list. This consolidation is the responsibility of the panel chairs or their deputies, who will work in order to create a consolidated ranking in accordance with the evaluation criteria, and pay particular attention to inter-disciplinary and cross-panel calibration issues. A dedicated meeting of panel chairs will be organised after the last panel meeting.

***The case of insufficient good proposals***

In cases where a panel does not have sufficient high-quality proposals to reach its nominal budget, any remaining budget will be transferred to the **reserve budget**.

***The ScC strategic decision at domain level***

The three domain-reserve lists will then be forwarded to the ScC, in order for the ScC to make its decisions about the reserve budget. ScC reserve-budget allocation to a domain-reserve list results in the start of the granting procedures for a number of proposals, strictly following descending ranking order.

## **7. Conflict of Interest**

Peer-reviewers should not be put in a situation in which their impartiality might be questioned, or where the suspicion could arise that decisions are affected by elements



that lie outside the scope of the review. To that effect, the ERC DIS has formulated a clear set of rules pertaining to conflict of interest (Col) in the "Rules" (see Annex 3 "Conflict of interest in research evaluation"). These rules are incorporated in the Appointment Letter, in the form of the need for disclosure by the reviewer of any actual (disqualifying) or potential conflict of interest regarding the proposals. In the "potential" case, ERC DIS will make decision whether the situation in question constitutes an actual Col - or no Col.

### ***No individual assessments under Col and no participation in meetings***

No reviewer shall make an individual review of a proposal while under a Col with it. To that effect, ERC DIS shall avoid making conflictual assignments of proposals to reviewers, on the basis of the information available. Beyond the steps taken by the ERC DIS, reviewers are bound to disclose any Col and will not participate when an application that places them in Col is being evaluated.

### ***Col and panel meetings***

- Any Col must be declared prior to, or in the beginning of, the panel meeting, to all meeting participants.
- A panel member will refrain from any attempt to influence the result of the review of any proposal with which he / she has a Col. In particular, the panel member will not participate in the discussion, or in any voting, related to that proposal.
- PIs of submitted proposals as well as their team members if known by name will be excluded from the participation in panels.

## **8. The individual reviews**

Individual reviews are carried out prior to panel meetings. Panel members, panel evaluators and referees can participate in the individual review step.

### ***Minimum requirements***

The Rules stipulate that each proposal shall be subject to at least 3 individual reviews. In practice, ERC will use a target of at least 4. Barring unforeseen circumstances, at least 1 panel member who will be present in the subsequent panel meeting will carry out an individual review for each proposal. In practice, the target will be 2.

### ***The interpretation of "individual"***

During the individual review step, there shall be no discussions on the proposals concerned between the reviewers.

### ***Marks and comments***

Individual reviewing consists of:

- Awarding marks (including yes/no decisions) for each of the review criteria.
- Providing a succinct but substantial explanatory comment for each mark.

### ***The importance of marks and comments***

Both marks and comments are critically important:





- The individual review marks determine the relative position on the list that is the starting point for the panel discussions.
- The comments will be reproduced –verbatim- in the feedback to applicants.

### ***The range of the marks***

Marks range from 0 (missing information), 1 (very poor) ... to 5 (excellent). Marks are awarded in integers or halves. Reviewers are encouraged to reserve the extremes at the scale (0,1,...,5) for exceptionally bad / good proposals.

In all cases, reviewers are requested to stick strictly to the review criteria.

Once marks added and threshold 8 applied, a list is obtained of proposals to retain and another list is obtained of non-fundable proposals to reject.

### ***The nature of the comments***

Comments should be succinct but substantial. They should also be impeccably polite. The comments will be reproduced in the feedback to applicants.

Comments should take the form of a statement of key strengths and key weaknesses, in the light of the criteria. For a first stage proposal, they would typically be a few sentences long.

Reviewers are encouraged to observe the following additional guidelines:

- Please pay attention to the rules on conflict of interest and refrain from reviewing any proposal for which a Col exists.
- Avoid comments that give a description or a summary of the proposal.
- Avoid the use of the first person or equivalent: "I think..." or "This reviewer finds...".
- Always use dispassionate and analytical language: avoid dismissive statements about either the PI, the proposed science, or the scientific field concerned.

Under the Rules, the ERC is obliged to obtain a signed original version of the individual reviews. This can consist of a single signature on multiple reviews.

## **9. The criteria**

The criteria express the objectives of the ERC activity at the level of the review. They are, therefore, defined in the Work Programme. There are two types of criteria:

- Eligibility criteria.
- Review criteria.

### ***Eligibility criteria***

Eligibility criteria are simple, factual and legally-binding criteria. Their interpretation does not involve scientific judgement. Hence, eligibility is not part of the review process.



Instead, it is carried out in parallel by the ERC DIS. Most ineligible proposals will be identified prior to the review. However, in some cases proposals will be withdrawn from the review as ineligibility can only be confirmed with some delay.

### ***Review criteria***

The review criteria are at the core of the review process. All judgement on proposals must be made against the criteria, and the criteria alone.

The review criteria and their interpretation are described in the WP. Insofar as any further clarification is required, this will be done in public and before the call deadline.

## **10. Panel meetings and preparation**

### ***Autonomy of panel chairs***

Panel chairs have a high degree of autonomy in the conduct of their meetings: which proposals to discuss in detail, in which order, when to resort to voting and how to vote, etcetera. The conduct of the meetings will also be influenced by the numbers of proposals to be reviewed by the panel.

### ***The efficiency of meetings and preparation***

The ERC attaches great importance to the principle that panel meetings should be short and efficient. For that reason, preparatory work is carried out by electronic means in advance of the meeting:

1. Panel members familiarise themselves with all proposals in their panel, in order to be able to make high-quality decisions
2. Panel members and panel evaluators carry out individual reviews of a subset of proposals
3. Typically only in the second stage, referees also contribute individual reviews.

The prior individual review step increases efficiency in two ways:

1. To create a preliminary ranking, allowing panel discussions to focus their attention on those proposals that merit substantial discussion, and allowing an early elimination of low-ranked proposals.
2. To gather elements of the feedback to applicants. In particular for the low ranked proposals, the comments obtained by individual review may sufficiently capture the substantial reasons for the rejection, and – subject to panel agreement – no further comments by the panel are necessary.

### ***Methodologies for decision-making and ranking***

Starting from the preliminary ranking, panels would typically go through a process of successive elimination steps, where the depth of discussion increases as the number of proposals in contention is reduced. For each eliminated proposal, panels will either decide to adopt the average mark originating from the individual reviews, or to assign a different mark. They will also give an appropriate panel comment (see feedback to applicants section).

### ***The possible use of a voting system***



In the later stages of this process, panels may expedite their decision-making process by the use of a voting system, such as a modified Borda count. In such a system, each panel member will distribute a number of votes to his / her preferred proposals, and proposals would be ranked on the basis of the votes. A panel member can not vote for a proposal if under a Col, and an appropriate correction is applied. The voting shall be blind to avoid tactical behaviour; however, after voting is complete, individual votes are transparent to the panel. The results of such a vote need not be binding. The voting is to be considered mainly as an effective way to create a ranking based on a set of individual preferences.

### ***Outputs of the panel meetings***

The output of an individual panel meeting, to be completed at the end of the meeting, consists of the following elements:

1. The necessary lists of proposals, depending on the stage (see the panel budget section)
2. The feedback to applicants (see the relevant section)
3. A panel report

### ***The panel report***

In addition to the necessary lists of proposals, the panel report briefly documents the methodology followed by the panel. It also contains, as appropriate, reflections on issues such as the quality of proposals in relation to the budget and observations on inter-disciplinary proposals. It may contain recommendations to be taken into account by the ERC in future review sessions.

## **11. Feedback to applicants**

Apart from the decisions on "fundability" of proposals and their ranking, the most important output of the panel meetings is the feedback to applicants. According to the "Rules", the ERC DIS will provide to each applicant an Evaluation Report (**ER**), which documents the results of the review, in terms of marks and comments (see Annex 4 for a sample ER). Especially in case of rejection, the ER needs to convey a credible explanation of the fate of the proposal. The principle applies that the ER will contain a documentation of all observations on the proposal, both from individual reviewers and from the panels.

In the first stage, no feedback to applicants will be given for successful proposals. In order to guarantee uniformity of treatment, these applicants will only receive a letter inviting the submission of the second stage proposal.

### ***Elements of the ER***

The ER of the ERC is comprised of three components:

1. The final decision of the panel
2. A comment by the panel, documenting the panel decision
3. The comments given by individual reviewers – referees and panel members/evaluators - prior to the panel meeting



### ***The comments by individual reviewers***

The comments by remote reviewers are included in the ER in principle as received. They may be subject to mild editing by the ERC – covering e.g. spelling, clarity, avoiding misleading recommendations. These comments may not necessarily be convergent – differences of opinion about the merits of a proposal are legitimate, and it is potentially useful for an applicant to be informed of the various views.

### ***The panel comment***

In many cases the comments by the individual reviewers provide a sufficient explanation of the fate of the proposal. In such cases, the panel comment will typically simply acknowledge the weaknesses or strengths pointed out by the individual reviewers. It will then not contain observations that substantially deviate from the view expressed by the individual reviewers.

In other cases, the panel may take a position that is different from what could be inferred from the comments of the individual reviewers. For example, if the panel discussion reveals an important weakness in a proposal the panel comment will document its reasons in a substantial comment.

In the first stage, a number of proposals of reasonable / good quality may be rejected for the reason of lack of virtual budget. Such proposals may typically have positive comments from individual reviewers; however they do not gather enough support from panel members when taking into account the budgetary constraint. In such cases, the panel comments may be expressed in these terms.

## **12. Interviews with Principal Investigators**

The review methodology for the ERC Starting Grant includes interviews with all PIs of second stage proposals. Panels have a significant degree of autonomy in carrying out the interviews. However, in the interest of equal and fair treatment, panels will be expected to follow a number of guidelines.

### ***Minimum duration***

All interviews by one panel should be of the same duration, and should not last less than 20 minutes. They should start with a 5 minute presentation by each interviewed PI providing an outline of the proposed research. There may be variations in duration between panels, as a result of workload variations.

### ***Use of sub-panels***

For panels with smaller numbers of proposals, it may be possible for all panel members to attend all interviews. For panels with higher workloads, the tasks may be split between sub-panels. Such sub-panels should consist of at least four panel members at any time. In order to maintain coherence between sub-panels, panel members should rotate between them on a regular basis.

Interviews must address the review criteria. They will be structured around a set of leading questions which are identical for each applicant.

### ***The results of the interviews***



Panels or sub-panels will express their appreciation of the applicant in the form of a score (i.e. the interview is not a yes / no factor). In the subsequent panel meeting, panels will take into account the results of the interviews alongside the other elements; the individual review and the preliminary ranking.

### **13. The role of delegates of the Scientific Council**

The ERC-ScC may delegate its members to attend panel meetings. The role of the ScC delegates relates to ensuring and promoting coherence of decision-making between panels, to identifying best practices and to gathering information for future reviews of the procedures by the ScC.

In conformity with the mandate of the ScC to carry out the scientific governance of the ERC, and in line with the strategic nature of ScC decisions foreseen in the WP, ScC delegates are not expected to influence the results of the review process.

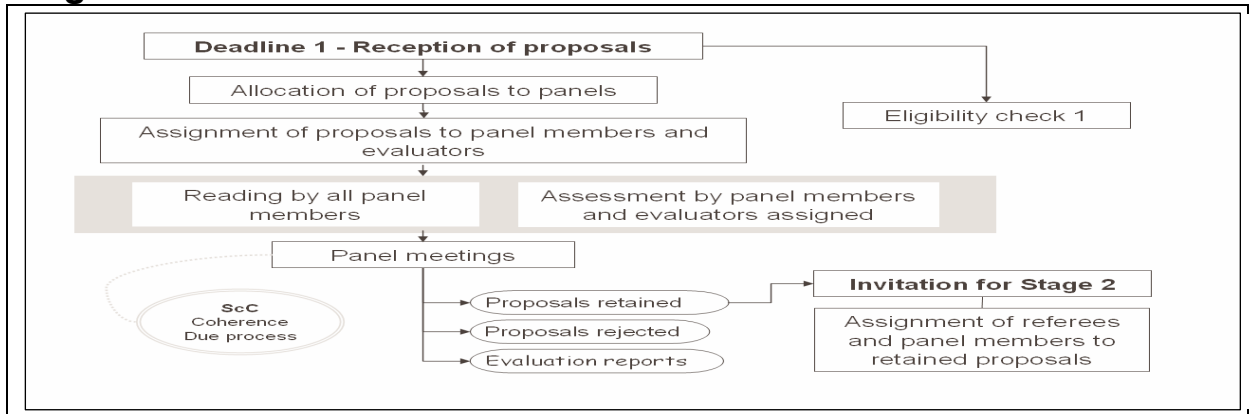
### **14. The role of Independent Observers**

Under the Rules, the ERC has an obligation to invite Independent Observers to observe its review sessions at regular intervals. The Independent Observers are independent of the ERC and of the ScC, as it is stated in the ERC rules for proposal submission.

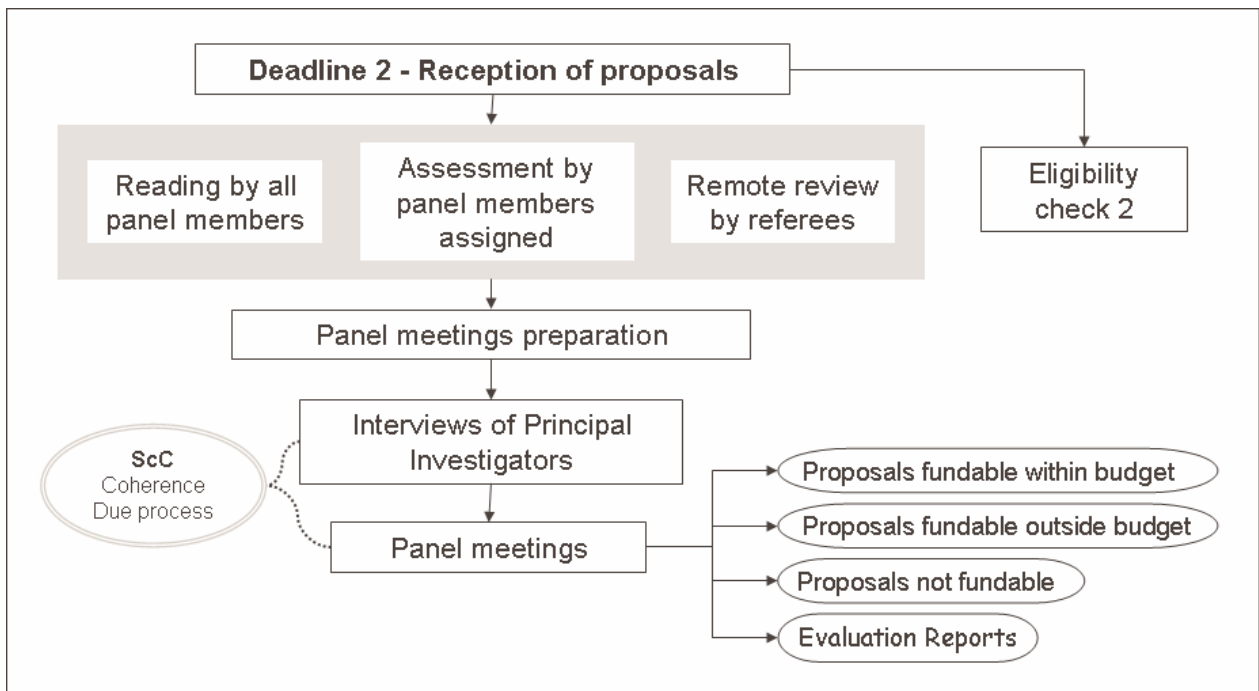


## Annex 1: The overview of the evaluation process

### Stage 1



### Stage 2



## Annex 2: ERC Starting Grants: Peer Review Panel Structure

**Social Sciences and Humanities**



**Panel SH1 - Individuals and organisations:** economics, management, demography, geography, urban and environmental studies

SH1_1	Macroeconomics, growth, development, business cycles
SH1_2	Microeconomics, institutional economics
SH1_3	Environment, sustainability, social and industrial ecology
SH1_4	Econometrics, statistical methods
SH1_5	Financial markets, banking and corporate finance
SH1_6	Innovation, competitiveness, research and development
SH1_7	Consumer behaviour, marketing
SH1_8	Organization studies, strategy
SH1_9	Human resource management, employment and earnings
SH1_10	Public administration, public economics
SH1_11	Income distribution, poverty
SH1_12	International trade, economic geography
SH1_13	Human and social geography, spatial and regional planning
SH1_14	Population dynamics, health and population
SH1_15	Urbanization, urban planning, transport studies

**Panel SH2 - Institutions, behaviour, values and beliefs:** anthropology, sociology, political science, law, communication, social studies of science and technology

SH2_1	Social structure, inequalities, mobility
SH2_2	Communication networks, media studies, information society
SH2_3	Ageing, work, social policies
SH2_4	Globalization, migration, interethnic relations
SH2_5	Identity, community, nation, religion
SH2_6	Legal systems, human rights, constitutions
SH2_7	Kinship, cultural dimensions of classification and cognition
SH2_8	Myth, ritual, symbolic representations
SH2_9	Ethnography
SH2_10	Political systems, legitimacy, political support
SH2_11	Global and transnational governance, civic participation
SH2_12	Transformation of societies, democratization, social movements
SH2_13	Scientific knowledge production, politics of knowledge
SH2_14	Technosciences and societies, mutual engagement
SH2_15	History of science and technology



**Panel SH3 - The human mind and its complexity:** cognition, linguistics, psychology, philosophy and education

SH3_1	Evolution of mind and cognitive functions
SH3_2	Formal, cognitive and functional linguistics
SH3_3	Neuro-, psycho-, sociolinguistics
SH3_4	Linguistic typology, comparative and historical linguistics
SH3_5	Human life-span development
SH3_6	Neuro and cognitive psychology
SH3_7	Clinical and experimental psychology
SH3_8	Education
SH3_9	Philosophy
SH3_10	Epistemology, logic
SH3_11	Ethics and morality

**Panel SH4 - Cultures and cultural diversity:** literature, visual and performing arts, music and cultural studies

SH4_1	Classics, classical literature, classical art
SH4_2	Literature, literary theory, analysis and criticism
SH4_3	Comparative literature
SH4_4	Textual philology and textual criticism
SH4_5	Visual arts
SH4_6	Performing arts
SH4_7	Museums and exhibitions
SH4_8	Music and musicology
SH4_9	Cultural studies, cultural diversity
SH4_10	Ethnic and postcolonial studies
SH4_11	Cultural heritage

**Panel SH5 - The study of the past and of cultural artefacts:** memory, history and archaeology

SH5_1	Modern and contemporary history
SH5_2	Ancient history, ancient cultures
SH5_3	Medieval history
SH5_4	National, transregional and transnational history
SH5_5	Entangled histories, global history
SH5_6	Social, economic, cultural, political history
SH5_7	Historiography
SH5_8	Archaeology, prehistory, protohistory
SH5_9	Collective memories and identities, lieux de memoire
SH5_10	History of art and architecture
SH5_11	History of ideas, intellectual history





## Mathematics, physical sciences, information and communication, engineering, universe and earth sciences

**Panel PE1 - Mathematical foundations:** all areas of mathematics, pure and applied, plus mathematical aspects of theoretical computer science, and mathematical physics

PE1_1	Foundations of mathematics and logic
PE1_2	Algorithms
PE1_3	Number theory
PE1_4	Combinatorial analysis
PE1_5	Algebra
PE1_6	Geometry
PE1_7	Topology
PE1_8	Analysis
PE1_9	Computational mathematics
PE1_10	Theoretical computer science
PE1_11	Numerical analysis
PE1_12	Probability and statistics
PE1_13	Applied mathematics
PE1_14	Operations research
PE1_15	Mathematical physics
PE1_16	Other areas of mathematics

**Panel PE2 - Fundamental constituents of matter:** high energy, particle, nuclear, plasma, atomic, molecular, gas, and optical physics

PE2_1	High energy physics
PE2_2	Fundamental interactions and particles
PE2_3	Particle physics
PE2_4	Nuclear physics
PE2_5	Gas and plasma physics
PE2_6	Atomic, molecular physics
PE2_7	Optics and quantum optics
PE2_8	Relativity
PE2_9	Classical physics
PE2_10	Thermodynamics
PE2_11	Non-linear physics
PE2_12	General physics
PE2_13	Metrology



**Panel PE3 - Condensed matter in physics and chemistry:** condensed matter (structure, electronic properties, fluids,...), statistical physics, nanosciences, reactions

PE3_1	Biophysics
PE3_2	Condensed matter and solid state physics
PE3_3	Statistical physics
PE3_4	Phase transitions
PE3_5	Structural properties of materials
PE3_6	Electronic properties of materials and transport
PE3_7	Magnetism
PE3_8	Superconductivity
PE3_9	Semiconductors
PE3_10	Material sciences (physics related)
PE3_11	Nanosciences and nanotechnology (physics related)
PE3_12	Reaction mechanisms
PE3_13	Chemical reactions
PE3_14	Reaction dynamics
PE3_15	Theoretical and computational chemistry of condensed matter
PE3_16	Chemical physics, physical chemistry of condensed matter
PE3_17	Nanochemistry

**Panel PE4 - Material and chemical sciences:** material sciences, molecular architecture, chemical theory, analysis and synthesis (organic and inorganic), physical and environmental chemistry, method development

PE4_1	Physical chemistry of molecules
PE4_2	Environment chemistry
PE4_3	Homogeneous and heterogeneous catalysis
PE4_4	Spectroscopic and spectrometric techniques
PE4_5	Molecular architecture
PE4_6	Molecular chemistry
PE4_7	Analytical chemistry
PE4_8	Organic chemistry
PE4_9	Inorganic chemistry
PE4_10	Instrumental techniques
PE4_11	Macromolecular chemistry, polymer chemistry
PE4_12	Solid state chemistry
PE4_13	Synthesis (organic and inorganic)
PE4_14	Material science (chemistry related)
PE4_15	Surface science
PE4_16	Colloid chemistry
PE4_17	Combinatorial chemistry
PE4_18	Theoretical and computational chemistry of molecules
PE4_19	Method development
PE4_20	Supramolecular chemistry
PE4_21	Chemistry of biological systems (biological chemistry)



**Panel PE5 - Information and communication:** informatics and information systems, computer science, scientific computing, communication technology, intelligent systems

PE5_1	Computer architecture
PE5_2	Database management
PE5_3	Formal methods
PE5_4	Graphics
PE5_5	Human computer interaction and interface
PE5_6	Informatics and information systems
PE5_7	Theoretical computer science
PE5_8	Intelligent systems
PE5_9	Scientific Computing
PE5_10	Modelling tools
PE5_11	Multimedia
PE5_12	Networks
PE5_13	Parallel and Distributed Computing
PE5_14	Robotics
PE5_15	Signals, Speech and Image Processing
PE5_16	Systems and software

**Panel PE6 - Engineering sciences:** electronics, product design, process design and control, construction methods, fluid and solid mechanics, energy systems, bio-engineering

PE6_1	Aerospace engineering
PE6_2	Biomedical engineering and technology
PE6_3	Chemical engineering
PE6_4	Civil engineering
PE6_5	Control engineering
PE6_6	Electrical and electronic engineering
PE6_7	Computational engineering
PE6_8	Fluid dynamics
PE6_9	Energy systems
PE6_10	Maritime engineering
PE6_11	Microengineering
PE6_12	Mechanical engineering
PE6_13	Materials Engineering
PE6_14	Nuclear engineering
PE6_15	Process engineering
PE6_16	Product design
PE6_17	Simulation engineering and modelling
PE6_18	Systems engineering



**Panel PE7 - Universe science:** astro-physics/chemistry/biology/geology; solar system; stellar, galactic and extragalactic astronomy, cosmology; space science, instrumentation

PE7_1	Solar and interplanetary physics
PE7_2	Planetary systems sciences
PE7_3	Interstellar medium
PE7_4	Formation of stars and planets
PE7_5	Astrobiology
PE7_6	Stars and stellar systems
PE7_7	The Galaxy
PE7_8	Formation and evolution of galaxies
PE7_9	Clusters of galaxies and large scale structures
PE7_10	High energy and particles astronomy – X-rays, cosmic rays, gamma rays, neutrinos
PE7_11	Relativistic Astrophysics
PE7_12	Dark matter, dark energy
PE7_13	Gravitational astronomy
PE7_14	Cosmology
PE7_15	Space Sciences
PE7_16	Very large data bases: archiving, handling and analysis
PE7_17	Instrumentation - telescopes, detectors and techniques

**Panel PE8 - Earth system science:** physical geography, geology, geophysics, meteorology, oceanography, climatology, ecology, global environmental change, biogeochemical cycles, solar planets, natural resources management

PE8_1	Atmospheric chemistry and aeronomy
PE8_2	Meteorology and atmospheric sciences
PE8_3	Climatology (incl. paleo-climatology), climate modeling
PE8_4	Ecology, environmental chemistry, water, air and soil pollution
PE8_5	Geography, geology, geochemistry
PE8_6	Global environmental change
PE8_7	Geophysics, seismology, volcanology
PE8_8	Oceanography/marine sciences (physical, chemical, biological),
PE8_9	Biogeochemistry
PE8_10	Geophysics, geochemistry, mineralogy
PE8_11	Solar planetology
PE8_12	Petrology, sedimentology
PE8_13	Physical geography
PE8_14	Earth observations from space / remote sensing
PE8_15	Geomagnetism, paleomagnetism
PE8_16	Ozone and atmospheric composition
PE8_17	Soil science, tectonics
PE8_18	Waste disposal, water science



## Life Sciences

**Panel LS1 - Molecular, cellular and developmental biology:** molecular biology, biochemistry, biophysics, structural biology, cell biology, cell physiology, signal transduction and pattern formation in plants and animals

LS1_1	Molecular biology and interactions
LS1_2	General biochemistry and metabolism
LS1_3	Nucleic acid biosynthesis, modification and degradation
LS1_4	RNA processing and modification
LS1_5	Protein synthesis, modification and turnover
LS1_6	Biophysics
LS1_7	Structural biology (crystallography, NMR, EM)
LS1_8	Morphology and functional imaging of cells
LS1_9	Cell biology and molecular transport mechanisms
LS1_10	Cell cycle and division
LS1_11	Apoptosis
LS1_12	Cell differentiation, physiology and dynamics
LS1_13	Organelle biology
LS1_14	Cell signalling and cellular interactions
LS1_15	Signal transduction
LS1_16	Development, developmental genetics, pattern formation and embryology

**Panel LS2 - Genetics, genomics, bioinformatics and systems biology:** molecular and cell genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biological modelling and simulation, systems biology

LS2_1	Molecular genetics
LS2_2	Epigenetics and gene regulation
LS2_3	Quantitative genetics
LS2_4	Cell genetics
LS2_5	Comparative genetics
LS2_6	Human genetics
LS2_7	Reverse genetics and RNAi
LS2_8	Genomics, comparative genomics, functional genomics
LS2_9	Proteomics
LS2_10	Transcriptomics
LS2_11	Metabolomics
LS2_12	Glycomics
LS2_13	Bioinformatics
LS2_14	Computational biology
LS2_15	Biostatistics
LS2_16	Systems biology
LS2_17	Biological systems analysis, modelling and simulation



**Panel LS3 - Organismic physiology, including infection and immunity:** organogenesis, organ physiology, endocrinology, ageing, regeneration, metabolism, immunobiology, microbiology, virology, parasitology, toxicology

LS3_1	Organ physiology
LS3_2	Comparative physiology
LS3_3	Endocrinology
LS3_4	Ageing
LS3_5	Metabolism, biological basis of metabolism related disorders
LS3_6	Toxicology
LS3_7	Parasite biology
LS3_8	Microbiology, microbial genetics
LS3_9	Virology, viral genetics
LS3_10	Innate immunity
LS3_11	Adaptive immunity
LS3_12	Phagocytosis and cellular immunity
LS3_13	Immunosignalling
LS3_14	Immunological memory and tolerance
LS3_15	Immunogenetics
LS3_16	Biological basis of immunity related disorders

**Panel LS4 -Neurosciences:** neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology, neuroimaging, systems neuroscience, psychiatry

LS4_1	Neurobiology
LS4_2	Neuroanatomy
LS4_3	Neurophysiology
LS4_4	Neurochemistry and neuropharmacology
LS4_5	Systems neuroscience
LS4_6	Cognition
LS4_7	Behaviour
LS4_8	Brain and neuroimaging
LS4_9	Biological basis of neural and psychiatric disorders

**Panel LS5 - Evolutionary, population and environmental biology:** evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, ecotoxicology

LS5_1	Evolutionary biology, biological adaptation
LS5_2	Molecular evolution
LS5_3	Evolution and development
LS5_4	Population biology, population dynamics, population genetics
LS5_5	Ecology, environmental and <a href="#">conservation</a> biology, biodiversity, ecotoxicology, marine biology, radiation biology
LS5_6	Environment and health risks including radiation biology, environmental medicine and toxicology



**Panel LS6 - Medical and health science research:** aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, regenerative medicine, veterinary medicine, medical ethics

- LS6\_1 Biological basis of non-communicable diseases, except for neural/psychiatric, immunity-related and metabolism-related disorders. E.g. cancer and cardiovascular diseases
- LS6\_2 Diagnostics
- LS6\_3 Therapies: drug therapies, gene therapy, surgery
- LS6\_4 Stem cell biology, regenerative medicine
- LS6\_5 Public health and epidemiology
- LS6\_6 Pharmacology and pharmacogenomics
- LS6\_7 Health services, health care research
- LS6\_8 Veterinary medicine
- LS6\_9 [Ethics](#) in medical and health sciences

**Panel LS7 - Applied life sciences, biotechnology and bioengineering:** agricultural, animal, fishery, forestry and food sciences; biotechnology, chemical biology, genetic engineering, synthetic biology, industrial biosciences; environmental biotechnology and remediation; bioethics

- LS7\_1 [Genetic engineering](#), transgenic organisms, recombinant proteins, biosensors
- LS7\_2 Synthetic biology and new bio-engineering concepts
- LS7\_3 Chemical biology
- LS7\_4 Agriculture and food: [animal husbandry](#), [dairying](#), livestock raising, crop production, soil biology and cultivation, applied plant biology
- LS7\_5 Aquaculture, fisheries
- LS7\_6 Forestry, biomass production
- LS7\_7 Environmental biotechnology: bioremediation; biodegradation
- LS7\_8 Industrial biotechnology: bioreactors, industrial microbiology
- LS7\_9 Drug discovery, drug design
- LS7\_10 Biofuels, biomimetics
- LS7\_11 Biohazards, biological containment, biosafety, biosecurity
- LS7\_12 Ethics in life sciences (other than medical and health sciences)



## **Annex 3: Conflict of interest (CoI) in ERC peer review evaluations**

**A disqualifying conflict of interest** exists if the panel chair, panel member, panel evaluator or referee:

- Was involved in the preparation of the proposal
- Stands to benefit directly should the proposal be accepted
- Has a close family relationship with any person representing an *applicant legal entity* in the proposal
- Is a director, trustee or partner of an *applicant legal entity*
- Is employed by one of the *applicant legal entities* in a proposal
- Was employed by one of the *applicant legal entities* in a proposal within the previous three years
- Is in any other situation that could compromise his or her ability to evaluate the proposal impartially

**A potential conflict of interest** may exist, even in cases not covered by the clear disqualifying conflicts indicated above, if the panel chair, panel member, panel evaluator or referee:

:

- Is already involved in a contract or research collaboration with an *applicant legal entity*, or had been so in the previous three years
- Is in any other situation that could cast doubt on his or her ability to evaluate the proposal impartially, or that could reasonably appear to do so in the eyes of an external third party





## Annex 4: Sample of an Evaluation Report (ER)

### ERC EVALUATION REPORT Stage 1

<b>Call reference</b>	ERC-2007-StG
<b>Activity</b>	ERC-SG
<b>Funding scheme</b>	ERC Starting Grant
<b>Panel name</b>	PE4 – Material and Chemical Sciences
<b>Proposal No.</b>	057432-1
<b>Acronym</b>	HolLit
<b>Title</b>	A novel method in holographic lithography at the nano-scale

#### PANEL MARKS

<b>1. Principal Investigator: Potential to become an independent research leader</b> <i>Quality of research output:</i> Has the Principal Investigator published in high quality peer reviewed journals or the equivalent? To what extent are these publications ground-breaking and demonstrative of independent creative thinking and capacity to go significantly beyond the state of the art? <i>Intellectual capacity and creativity:</i> To what extent does the Principal Investigator's record of research, collaborations, project conception, supervision of students and publications demonstrate that he/she is able to confront major research challenges in the field, and to initiate new productive lines of thinking?	<b>4 / 5</b>
<b>2. Quality of the proposed research project</b> <i>Ground-breaking nature of the research:</i> Does the proposed research address important challenges in the field(s) addressed? Does it have suitably ambitious objectives, which go substantially beyond the current state of the art (e.g. including trans-disciplinary developments and novel or unconventional approaches)? <i>Potential impact:</i> Does the research open new and important scientific, technological or scholarly horizons? <i>Methodology:</i> Is the outlined scientific approach (including the activities to be undertaken by the individual team members) feasible?	<b>3.8 / 5</b>
<b>Total mark</b>	<b>7.8 / 10</b>
<b>Has the proposal passed the threshold (8/10)?</b>	<b>No</b>

#### PANEL COMMENTS

This evaluation report documents the final decision by the ERC evaluation panel. The panel bases its appraisal on the individual assessments by specific panel members and evaluators, whose comments are reproduced below.

The panel has reviewed these assessments and, while not necessarily subscribing to each and every opinion expressed, finds that in their totality they provide a fair and positive assessment of the proposal. The panel shares this impression that the proposal is generally of good quality.

However, in the context of the strong competition and the limited availability of funding, the proposal did not find sufficient support and endorsement from the panel members to be retained for the second stage of the evaluation.

The panel has therefore decided to award the final marks as given in the table above.



## REVIEWER COMMENTS

### REVIEWER 1

**1. Principal Investigator: Potential to become an independent research leader**

The PI demonstrates an excellent publication record and clearly shows significant potential.

**2. Quality of the proposed research project**

The proposed research addresses novel methods for the production of thin-film nano-scale structures by holographic lithography. The methods proposed are new and interesting. They are also well and accurately described. The project contains a certain element of risk but, if successful, could be groundbreaking in its implications for structuring of substrates for biological targets.

### REVIEWER 2

**1. Principal Investigator: Potential to become an independent research leader**

This is a very good PI with impressive creative capability.

**2. Quality of the proposed research project**

The proposed science is new and well-described. The methodology is credible. The proposal addresses important challenges in the field.

### REVIEWER 3

**1. Principal Investigator: Potential to become an independent research leader**

The PI has published / co-authored in high-quality journals, and the relevant publications are of high quality. The PI shows an extensive track record of collaborations and project conception, and does prove a capacity for new and creative thinking.

**2. Quality of the proposed research project**

The proposed work appears founded on a number of good quality ideas, with the potential for revolutionising the patterning of bio-molecule immobilisation layers.