The ultimate RMA support system for ERC candidates

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The ultimate RMA support system for ERC candidates

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SCREENING
### ERC Categories

#### STARTING GRANT (StG)
- **2 ≤ PhD ≤ 7 years** (Prior to 1/1/2018)
- Budget (€): up to 1.5M + 0.5M*
- Duration: up to 5 years
- Commitment: min. 50%
- Next Deadline: **October 2017** (tentative)

#### CONSOLIDATOR GRANT (CoG)
- **7 < PhD ≤ 12 years** (Prior to 1/1/2018)
- Budget (€): up to 2M + 0.75M*
- Duration: up to 5 years
- Commitment: min. 40%
- Next Deadline: **February 2018** (tentative)

#### ADVANCED GRANT (AdG)
- Significant last 10 years track record
- Budget (€): up to 2.5M + 1M*
- Duration: up to 5 years
- Commitment: min. 30%
- Next Deadline: **31/8/2017**

*Justified purchase of major equipment / access to large-scale research infrastructures / relocation costs
SYNERGY GRANT (SyG)

• Interdisciplinary collaboration of 2-4 outstanding PIs
• Complementary skills and knowledge
• Indispensable synergy leading to a ground-breaking project
• Min. 30% PIs dedication, min. 50% performed in EU/AC
• Budget: up to €15M
• Duration: up to 6 years
• Two-step peer-reviewed evaluation, including an interview
• Average success rate was ~2% (24 selected projects out of 1,157 applications)
• Next Deadline: Expected in 2018

*Based on past calls and should regarded as such, until the official call is published.
ERC Eligibility practice

• Calculate the eligibility window correctly
  – Check the diploma award date
  – Career breaks (Maternity leave - 18 months / child, Paternity leave - actual documented leave, Long-term illness, clinical training or national service – as documented)
  – MD/PhD (unlike PhD/MD): StG → 4-9 years past MD degree, CoG → 9-14 years past MD degree

• Category margins - When to apply?
  – Late StG – early CoG / Late CoG – early AdG
  – Use career breaks to change categories? (AdG → CoG → StG)
  – Don’t misuse
PI profile - Who is “ERC material”?

- Creative thinkers – able to create paradigm shifts
- Outstanding CV & high-impact publications
- Proven leadership and independence
- ERC is not a collaborative grant
- Basic-research oriented
  - Rather than industry or teaching
  - Clinicians & Engineers – the “applicative thinkers” problem
- Timing (career-wise)
• International visibility

- **StG**
  - Post-doc/position in a different country

- **CoG**
  - Recognized internationally

- **AdG**
  - Recognized internationally

• Competitiveness in EU research arena

- **StG**
  - At least 1 high-impact publication w/o PhD supervisor

- **CoG**
  - Several high-impact publications, ascending trend of publications & citations

- **AdG**
  - Active 10 years track record – Fresh high-impact publications

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**h-index “vulnerability”**
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• Non-incremental work

**StG**
Proving independent thinking: Showing progress from PhD/ Postdoc

**CoG**
Critical

**AdG**
Critical Common issue

• Funding ID

**StG**
Not mandatory, dependent on time point

**CoG**
Critical

**AdG**
Critical

• Interdisciplinarity

Encouraged when well justified, not a must
• Career/Discipline shift

**StG**
Possible if research benefits from the interdisciplinarity

**CoG**
If research benefits from the interdisciplinarity, and supported by publications

**AdG**
Less probable

• Leading a research team

**StG**
Not mandatory, could be an advantage

**CoG**
Critical

**AdG**
Critical

• Mentoring new scientists

**StG**
Not mandatory, could be an advantage

**CoG**
Critical

**AdG**
Critical
• Point in time, career-wise

**StG**
- Is it too early?
- Transition to CoG

**CoG**
- Publication status
- Personal considerations
- Transition to AdG

**AdG**
- Publication status
- Personal considerations

• Point in time, concept-wise

**Strike the iron while it’s hot**
- Ahead of the competition?
- Will it be too late next year?
- Convincing preliminary findings
- Is it mature enough?
- Pending publications

‘WHY ME, WHY NOW?’
Maximising the screening process

- Identify the right candidates
  - How to identify “ERC material”?
  - How to decide on “Go/No-Go”?
  - Not everybody, not every project

- Understanding the uniqueness of ERC

- Awareness raising for researchers
  - ERC Info days
  - ERC Training
  - Sharing success stories

- Coaching

- Consulting (peers, NCPs, experts)

- ERC Screening and Training lead to better success rates
ESTABLISHING THE CONCEPT AND PROPOSAL WRITING
The concept – RMA checklist

• High-risk, high-gain
  – Conceptual leap forward
  – Large scale vs. minimal impact – expanded scope over a niche research
  – Opening the horizon for future research
• Non-incremental
  – Non-incremental workflow, while presenting preliminary results
• Avoid being ‘too ambitious’
  – ‘Not able to carry out the work’
  – Feasibility aspect – avoid ‘hand waving’, not bringing it down to earth
• Some feasibility – Keep the fine balance
  – Present preliminary results that do not diminish the high-risk
  – Provide a Limited risk-assessment and contingency plan
The concept – RMA checklist

• Is the concept within the core expertise of the PI?
  – Will a dramatic change of infrastructure be needed? (e.g. computational biology to “wet” lab, theory to experimental)

• Present a macro-level work plan
  – Overall timeline and research phases
  – Avoid “WP structure” and deliverables

• Does it have an “open end”?
  – “Closed end” vs. open the horizon for more research
  – Too applicative: culminates into a PoC/demonstration (WPs) ➔ Consider FET-Open / other H2020 opportunities
The concept – RMA checklist

- Does it hold a 5 year research plan?
- Comprehensive but not fragmented
  - Avoid stand-alone sub-projects/studies (both in concept and presentation)
Hypothesis for ERC – Rationale

• ERC is looking for hypothesis-driven research projects
  – Reflects the ambition level, potential ground breaking impact and creativity

• Hypothesis-driven is tightly connected to the “High-risk / High-gain” & “Open end” attributes of ERC
  – If you know the answer beforehand or have a good estimation, the hypothesis is weaker and risk is lower
  – The discovery process - “the big picture” - will not end after 5-years project (“open–end”), even if hypothesis is verified or falsified

• Not all disciplines are used to working with hypotheses – Engineering, Earth Observation, Computer Sciences, Law, etc.
Quotes from recent ESRs – both awarded and rejected applications

Without a conceptual framework and hypothesis-testing design, the gain in knowledge would be incremental, not salutary.

In this regard, the concepts and approaches of the project are quite “classical”. They are also risky for the hypothesis-free screening but without significantly going beyond the current scientific or technical state of the art.

Nevertheless, the lack of theoretical background (of the field) and argumentation (of different views, hypotheses…) for the intended study seem a bit problematic (when it comes to evaluate the ground-breaking nature and potential impact).

The project does not articulate a hypothesis around the core functions of these bodies beyond that of knowledge production. It might be more effective to list a series of hypotheses to be tested and the modelling protocols used for the analyses.

A central hypothesis is formulated, which will be tested empirically. Since the main contribution is to be a theoretic one, there is indeed high risk/high gain. If, however, the hypothesis is confirmed the gain is high, both scientifically and from a societal point of view. The proposed hypothesis and the set-up of this project clearly show a very innovative PI who is up to the job of leading a small research group.

A major problem of the current project is that it remains unclear how the psychoanalytic hypothesis on the four defensive mechanisms (denial, displacement, reaction formation, and undoing) is critically tested. What are the criteria for falsification?

However, a more mechanistic (cognitive and neural) view and a more cognitive view about the processes engaged in this interaction are missing. In addition, a clearer hypothesis about what is expected with the neurophysiological measures is needed. We need something more specific than the inter subject correlation. The identification of a concrete working hypothesis as well as a better embedding in the theory literature of the proposed theory would have been helpful.

These are valid ideas, but there are many different ways to operationalize these concepts into a formal research plan with testable hypotheses. What specific data will be gathered, what models will be used to establish hypotheses, and how will these hypotheses be empirically tested?

Clear working hypotheses are not presented so that the network analysis for instance, which is underspecified, will remain purely descriptive.
Hypothesis for ERC – In practice

• Past experience discloses:
  - Weak or too generalised hypothesis
  - No hypothesis
  - Confusing the project’s mission for the hypothesis
  - Confusing the research question(s) for the hypothesis
  - Deductive reasoning instead of inductive
  - Descriptive analysis of data
  - Directional vs. Non-Directional hypotheses
  - And more...
A good hypothesis should:

- Enable advancement of knowledge
  *In ERC: high risk, high gain*

- Be consistent with observations
  *In ERC: preliminary results*

- Be conducive to further enquiry
  *In ERC: open end*
Deductive vs. Inductive reasoning

**Deductive**
- Observation
- Pattern
- Tentative hypothesis
- Theory

“Fishing expeditions”

**Example**: “This unique data could shed light on how people act in situation X.”

**Inductive**
- Theory
- Hypothesis
- Observation
- Rectify / Refute

Bottom-up approach

**Example**: “I hypothesise that in situation X, people will tend to act in the form of Y.”
Directional vs. Non-Directional

Directional hypothesis is stronger than a Non-directional hypothesis (Quantitative research)

Non-directional

Example: “Drug A will have a different impact, compared to drug B”

Attributes:
- Tends to describe
- More general
- Does not compare
- Validity and reproducibility are in question
- Weaker impact

Directional

Example: “Drug A will have better impact than drug B”

Attributes:
- Prediction
- More specific
- Compares groups
- Validity and reproducibility can be achieved
- Stronger impact
Panel Selection

Technically

- Mandatory: 1 Review Panel with 1 corresponding Sub-panel (“ERC keyword”)
- Optional: 1 additional Review Panel, and up to 3 additional ERC keywords
- The primary review panel will probably manage the evaluation process
- The panelists have the mandate to bounce the proposal to another panel

Lead the panel selection – Avoid panel “bouncing”

How to choose the panel/s?

- Who will appreciate the PI (CV) and his/her novelty?
- Who understands the PI’s language/terminology?
- Will the PI feel comfortable to present to these people in the interview (StG/CoG)?

Secondary panel?

- Methodology vs. Impact? Track record vs. Vision?
- Does the PI need more than one panel? How interdisciplinary is she/he? Is there a risk involved in that?
Panel Selection

- The reciprocal effect of the panel and proposal
  - The panels are a given
  - What leads what? the panel or the proposal?
  - It is highly case-specific
  - Keep the reviewers’ background in mind
- Don’t leave this to the last stage – the most common mistake...
- Adjust the application
  - Help the panel members to select the best reviewers - abstract and “ERC keywords” are key
  - Add free keywords
  - Clearly justify multiple review panel choices
**The application**

**B1**

- Cover page
  - **Section a** – Extended Synopsis (5 pages)
  - **Section b** – CV (2 pages)
  - Funding ID
  - **Section c** – track record (2 pages)

**B2**

- **Section a** – State of the art & objectives
- **Section b** – Methodology
- **Section c** – Resources (15 pages)

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- **B1 should stand alone** - all essential information must be covered in the synopsis
- Avoid cross-references between B1 and B2
- Identical text, figures or references in both B1 and B2?
- References are **NOT included** within the page limits
ADMINISTRATIVE & TECHNICAL ISSUES
**Step 1**
Assessment by Panel members of B1 (PI & synopsis)

- C: 2 Locking periods
- B: 1 Locking period

**Step 2**
Assessment by Panel members & external peer reviewers of PI (B1) & B2

- Personal Interviews
  - StG and CoG applicants

  - B: No locking period
  - A: Funded if sufficient funds are available

- **ESR**

**Notes:**
- Blocking is personal
- “Can I submit a different proposal this year instead?”
Technicalities – RMA checklist

General

• Avoid redundancies and repetitions in the text
• Conform to the templates
• Avoid outdated templates – slight changes may occur from deadline to deadline
• Do not exceed page limits, font size, margins
• Use template tables for Funding ID and budget
• PI’s dedication to the project according to category
• Funding ID – ongoing and pending grants only
• Past grants - listed in track record / CV
• Keep copies of all application documents for backup, during the process
Technicalities – RMA checklist

Avoid last minute errors

• Missing details
• PhD award date (special attention to AdG)
• Mistakes & mix-ups
• Abstract is different than in B1 (should be identical)
• Uploading a draft file with comments / tracked changes
• Uploading a file to the wrong category (e.g. B2 instead of B1)
• Page no. references in ethics issues table do not match pages in B2
• Missing documents
• Forgot ethics issues annex
• Forgot diploma scan (StG/CoG)
• Forgot supporting documents for eligibility window extension (children’s birth certificates, etc.)
Technicalities – RMA checklist

Last minute errors, continued

- Poorly scanned host support letter
- PI name / acronym / title do not match host support letter
- Different acronym / title throughout the proposal (in parts A and B)
- Budget inconsistencies in B2 and part A, missing justifications
- Formatting bugs in the Word document / template
- Low-resolution figures
- Bugs when converting to PDF (typically figures and formulas)
- Mac OS vs. PC Windows; Microsoft Word vs. Latex vs. Open Office
- Template instructions / track changes leftovers in B1 and B2
- Missing panel selection justification in B1 cover page
Technicalities – RMA checklist

Budget
• Justification is key
• Correlate PI dedication to PI labour cost
• Pre-Award: might generate a comment by the evaluators
• Post-Award: internal/external audit concerns
• Equipment
  – Must be appropriate to the project’s tasks
  – This is not an infrastructure grant
  – Do not exploit the ‘extra’ equipment budget before exhausting the ‘regular’ possible grant
• Subcontracting – generally not recommended, except for:
  – Institutional regulations
  – Well justified complementary marginal work
• The PI must be able to justify the budget during the interview (StG/CoG)
Technicalities – RMA checklist

Post-award budget flexibility

• Budget plan: high-level cost categories
• No one expects an accurate budget plan for 6 years ahead
• The challenge – inaccurate estimation of costs:
  – Equipment, consumables and travel
  – Collaborations
  – Sub-contracting
• Justification enables flexibility
• Personnel cost is the best ‘safe harbour’, but not the only one
INTERVIEW PREPARATION
What should the applicant expect? - Panel dependent

• A short presentation (limited to 5-12 minutes)
• Restricted number of slides
  – Could be limited to a single sheet
• A Q&A session
  – Conceptual
  – Scientific disputes
  – Methodological
  – Technical
  – Budget
• Distractions and unexpected scenarios
ERC Interview preparation

- Who will be there? Panel selection – prepare accordingly
- Mind the specific interview instructions
- 2nd stage evaluation results are already set at the time of the interview
- The interview is not like presenting in a conference / teaching
- The challenge - to present the project into a 5-12 minutes presentation – instead of summarizing it (typical mistake)!
- Convey the message - ‘Why me? Why now?’

- Prepare, Consult, Simulate, Rehearse
Preparing for the interview

• Unexpected scenarios...

  – The ‘waiting room syndrome’
  – Delays in the interview agenda
  – Power outage, interruptions
  – Videos do not play
  – A panel member does not like the PI for some reason
  – Questions the PI cannot answer
  – Highly technical / marginal questions
Analysing the ESR comments

• Group 1: **Highly important** → usually refer to the scientific content concept and methodology
  – Assess whether the comment was justified –
    • If YES: revise the concept and/or scientific presentation accordingly
    • If NO: reconsider the proposal’s presentation and how to defend the scientific concept in order to avoid repeating such criticism.

• Group 2: **Nice to have** → usually more technical and do not serve as main reason for disqualification of the ERC application
  – Consider which comments to address in the new application and how. It is not always recommended to attend to this type of comments.

• Group 3: **Irrelevant / unexplained / unjustified / personal** → do not refer to the essence of ERC and could seem unjust
  – Review carefully, however in most cases the advice would be to ignore this type of comments.

How many reviewers commented on the same issue?
• Determine if there is a ‘show stopper’
• Resubmission is encouraged under the right circumstances
• Resubmission does not mean ‘copy and paste’
• Re-visit:
  – Scientific concept and presentation
  – Publications and track record
  – Personal considerations & timing
  – Templates and technical updates
 ERC support – RMA timeline

**Enhanced intervention**

External Support
- RA & PI Training
- PL Training
- PI consulting & guidance
- Quality Assurance
- ESR feedback
- Interview training & preparation

RAs
- Identify “ERC Material”
- Go/No-Go
- PI coaching & support

RA & PI Training
- Identify “ERC Material”
- Go/No-Go

PLs
- PI Profile
- Coaching
- Excellence
- Panel Selection
- Concept Crystallization
- Ethical Issues

Eligibility Criteria
- Project’s Nature
- Concept Crystallization
- Title / acronym
- Budget

Proposal Writing
- Templates
- Host letter
- Admin forms

Admin / Technical
- B1
- B2
- GA

Common practice

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TAKE HOME MESSAGE

ERC is not the typical national grant –

it deserves a dedicated process

and special attention

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