

How to write a successful grant - from a reviewer's perspective

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Experience from reviewing:

- 5 years at Swedish research council (VR) on biomedical engineering (NT-19) as reviewer, past two years as vice chairman
- 3 years HMT: Health, Medicine and Technology; collaboration grants for KTH and KI
- Occasional:
 - KAW
 - FWF Wissenschaftsfonds
 - Welcome Trust
 - etc

Experience from being reviewed:

- NIH R01
- VR
- SSF
- ERC starting grant
- ERC consolidator grant
- Vinnova
- KAW
- NordForsk
- Etc...

What makes a reviewer happy?

That the applicant

- has carefully read and followed the instructions
- is structured and focused (more later)
- helps the reviewer by providing the information asked for in the evaluation criteria
- makes it obvious what she/he has done/will do, and what has been/will be done by others

What makes a reviewer excited?

When

- there is a logic flow in ideas, competences of the people involved, and plans for how to move to the next level of knowledge
- the research fills a well-defined 'knowledge gap' in a clever way, forwarding science
- there is an illustration to clarify the main ideas; A picture says more than 1000 words
- the applicant's own excitement shines through; Propose a project that you believe in yourself

Examples of assessment criteria (VR research grants)

- Scientific quality of the project (1-7)
- Novelty and originality (1-7)
- **Merits of the applicant(s) (1-7)**
- Feasibility (1-3)
- For some calls, the basic criteria above are supplemented with specific additional criteria, such as the relevance of the application, the interdisciplinary approach or other factors applying to the call in question. The assessment criteria used, and how they are used, is always specified in the call text.

-Assessment criteria are often provided together with the call; read them carefully!

Merits of the applicant

The assessment should concern the **merits of the applicant to perform the proposed project**. The assessment of the co-applicants complementary expertise is mainly of relevance for the feasibility of the project.

- How significant is the applicant's scientific productivity, impact and other merits in a national and international perspective, in relation to the research area, and the **applicant's career age**? Here the emphasis should be put on the **recent scientific achievements** (including up to the last eight years)
- What is the applicant's scientific **competence within the research area of the application**? The **future potential** should also be included in the evaluation when assessing Starting Grant applications

Especially for Starting Grants:

- Has the applicant shown the **ability to work independently**?
- Has the applicant shown the **ability to work in new (international) research environments**, for instance during postdoctoral work?

Who will read and grade my grant?

Names of panel members are often available, but perhaps more important to look at the focus area of the grant.

E.g. 'Biomedical engineering'= **Focus areas**

- Artificial organs
- Biomaterials
- Bio-optics
- Biosensor technology
- Medical biotechnology
- Medical equipment engineering
- Medical ergonomics
- Medical Image and Signal Processing
- Medical informatics
- Medical laboratory technology and measurement technology
- Medical materials and prosthesis technology
- Physiological Measurement Technology and Modelling
- Radiation physics (medical aspects)
- Radiology and image processing
- Speech Technology and Technical Audiology


The reviewers are scientists, just like you...

...and they will read the call text and evaluation criteria.... just like you...

Start with the structure

- Write a short introduction describing
 - The background of the field and the gaps you want to fill with your research activities
 - The over-all goals of the project and their significance
- Divide the project into specific aims (~3)
 - For each aim
 - Why is it challenging (why has it not been done before)?
 - How will you approach it (very briefly)?
 - What is the impact (why is it important in the long run)?
- Describe the team and organization (including collaborators) and briefly explain why you are the most suited person to drive this project.
- Use a language that can also be understood by somebody with a different scientific background (check focus area of call)
- Make all this fit in **no more than one page**, and ask for input from many different persons
- Read the call and assessment criteria several times during the process
- Do this well ahead of time, and review it several times before starting the main writing!

What to do when you can not fit all in the provided space?

- Do NOT start to play with margins and font sizes!!! 
- Go back to your 1-page structure:
 - Did you follow it?
 - Do you have too many aims?
 - Are there aims that can be saved for future work?
 - What are the parts that you are most excited about?
 - Perhaps it is better to do a few things really well, rather than promising too much?
 - Is your background information at the right level?
 - E.g. do you have to include information on how many people die of cancer every year, or do you think the review panel will understand that your research is important also without this information?
 - Do you write the same thing in several places?
 - What would be the right place to put each piece of information (Challenge/Approach/Impact)

Getting a reject is frustrating...

Allow yourself to be unhappy a little while...

...but realize that grant writing is often the same thing as project planning, and hopefully you learned something in the process

If review comments are available, read them carefully, and see what you can learn from them!

There is a chance that the same reviewer will read your grant if submit it a second time, and review comments that have been addressed are always appreciated!

Good Luck!

(because there is always a component of luck in the process)