

# **A Few Notes on the Art of Writing an ERC Proposal**

**Prof. Jiri Matas**

ERC StG PE6 2012-2015

ERC CoG PEG 2016-2018

ERC Synergy 2019

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# There are plenty of good resources online



## Andreas Zeller's Blog

<http://tiny.cc/lagsfz>

2013-02-23

Twelve tips on how to prepare an ERC grant proposal

In 2011, I have been lucky to obtain an ERC Advanced Grant.

The European Research Council (ERC) is a EU institution that promotes *high quality research* in Europe. It funds individual investigators in any field of research – and it does so substantially: With up to 3.5 Million Euros, an ERC grant is Europe's highest research funding for individuals – and a very coveted prize: Only about 12% of proposals get funded, so competition is fierce.

Since I got my grant, other applicants have asked me again and again for hints and samples on how to prepare a proposal. Of course, there is no single recipe for success, but there were a few points which I found useful in preparing my proposal. While specific for ERC proposals (and from a computer scientist perspective), these tips should generalize for several other high-profile funding programs.

### The Process

1. **Understand the process.** The ERC publishes a *Guide for Applicants* as well as a *Guide for Reviewers*. Both should be your bible; at all times, ask yourself how your proposal will stand according to the criteria and the process listed. Find out what your panel is, who the chair will be, and which past members have been on the panel. Your proposal will need to win all of them.
2. **Start many, many months before the deadline.** Unless your story is a winner straight from the inception, you will need lots of time for refining and revising the main idea and the many problems. In my case, I started writing the proposal 18 months before the deadline; although 6 months would have been okay, too, refining for another 12 months helped the proposal a lot.
3. **Reserve several weeks for writing.** You will need lots of time for collecting data, shaping the story, and checking the references. Consider a 2–3 week retreat for the writing alone, plus appropriate time for polishing. Let your friends and family know when you'll be back.
4. **Get plenty of feedback.** Your proposal will first be reviewed from people in your discipline, but not necessarily from people in your speciality. It may also be that your proposal will have to stand against proposals from totally different disciplines. Hence, your story must appeal to readers *no matter what discipline and speciality they're from*. Discussing your ideas and your proposal with as many people as possible and as diverse as possible will help. In my case, I had the proposal reviewed by 10 internal and 10 external people, and used every possible

### ABOUT ME



#### Andreas Zeller

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Security, and professor for Software Engineering at Saarland University, both in Saarbrücken, Germany. In 2010, Zeller was inducted as Fellow of the ACM for his contributions to automated debugging and mining software archives, for which he also obtained the ACM SIGSOFT Outstanding Research Award in 2018. His current work focuses on specification mining and test case generation, funded by grants from DFG and the European Research Council (ERC).

[View my complete profile](#)

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5. **Rely on local expertise.** ERC projects are huge, and thus involve substantial budget and resource planning. If your university has support for EU and/or ERC proposals, rely on their expertise. (If you have a colleague who is already funded by the ERC, check with her or him as well, of course!)

### Your Achievements

6. **Sell yourself.** Your proposal will be assessed on two criteria. 50% is your project, and it will be up to you to come up with a great idea. 50%, however, is your past achievements, and you will have to work hard on these. What you need is *irrefutable evidence for impact and excellence*. That is, *facts* on awards, services, papers, talks, students, tools; lasting impact in academia and industry; your quality as networker and advisor; and, last but not least, your *ability to shape and create research fields*. Play by numbers: acceptance rates, citations, downloads. Check the list of past grantees, their numbers and achievements to get an idea of what you're up against.
7. **Have unique selling points.** "So, you're Brad Pitt? That don't impress me much." When you're surrounded by supermen (and you will be), just being another superman is not enough. So:
  - Don't just say: "I am an ACM Fellow". But say: "I am the first ACM Fellow from Spain", or "I am the youngest European ACM Fellow in concolic testing". Replace "European", and "concolic testing" by the most general feature you can find; and replace "ACM Fellow" by your most prestigious designation. (Hint: In my case, 6 out of 7 reviews began with "The applicant is an ACM Fellow", as if this would disperse all doubts on my abilities; so *go* for such designations as you can.)
  - Don't just say: "Best Paper Award". But say: "First Best Paper Award for a Debugging Paper written on a one-legged stool". Exercise: generalize as above.
  - Don't just say "700 citations". Also say: "Most cited testing paper since 1999".
  - Avoid any claim that cannot be independently verified.

Coming up with such selling points is hard work; bibliographic query tools are your friends. Again, reserve lots of time for this work. (I spent two days googling and digging through the CVs of all European ACM Fellows, for instance; and a successful colleague of mine even has managed to get temporarily banned from Google Scholar.) Selling yourself this way is hard; if you need to take a shower by the end of the day, that's fine. But remember that every selling point you can come up with this way makes it harder for detractors to dismiss your achievements, and it makes it easier for champions to sell them to others. In the end, it will have to be clear that you are the only person on earth who can save the world from this terrible, important problem.

### Your Project Plan

<https://andreas-zeller.blogspot.com/2013/02/twelve-tips-on-how-to-prepare-erc-grant.html>

## Your Project Plan

8. **No risk, no fun.** The ERC funds *high-risk, high-gain* projects. This means that there *have* to be substantial risks of failure (otherwise, others would have done this before). However, your specific research plans should help to mitigate these risks and thus bring the high gains promised. Focus on *novelty* (why is this new?) and *potential impact* (why is this needed?). Avoid standard cliches from your discipline ("If only everybody had used this formal method from the start, the Ariane failure could have been prevented..."); come up with fresh, real stories and insights instead.
9. **Clear title, clear abstract.** Think of the reviewer as an old, bored, nasty, uninterested, overloaded, overcommitted, latently aggressive, and totally uninterested ignorant doofus who hasn't gotten laid in a long time. (I'm a frequent reviewer, too, so I know what I speak about.) Even so, he or she should get interested in your proposal after a short glimpse of ten seconds. The message has to be in the title, in the abstract, in the figures, in the diagram, in the examples. (Yes, *please* have a diagram that conveys the approach! And *please* have an example, too! All these are weapons in the hands of your champions.) If you fear the message could be too complex, try again. If you think the message sounds too trivial to you, it could start to be understandable for the rest of us. (If, after simplification, your approach no longer sounds as cool as before, don't hide this with words, but go back to the drawing board.)

10. **Have a clear structure and plan.** You're a seasoned researcher, so you know how to organize things, don't you? Now all you need to do is to put this in writing: tasks, dependences, milestones, evaluations, and measurable success criteria. The point of this exercise is not for the ERC to ask you to follow the plan by the letter once the project starts; the point of this exercise is for the reviewers to see that you can organize things.
11. **Get to the point.** The length of an ERC proposals is clearly limited, and that's a good thing. Get to the point quickly. Use a clear language: No buzzwords, no yada yada, no lingo. If your project on "Examining the security interoperability of cloud business process models" cannot be motivated in plain English, don't expect the computer science panel chair to pitch it against "Curing cancer once and for all".
12. **Polish. Polish. Polish.** And polish again. With an ERC grant, you're applying for the highest individual funding one can get in Europe. Do your homework.

None of these tips guarantees success. What they do, though, is to prevent *misunderstandings*. If the reviewer does *not* get the point about you and your proposal, you will lose despite being great, and that sends you back to the drawing board. If the reviewers *do* get the point about your project and your past achievements, though, then it's a fair game: If you are better than the others, you win; and if you are not, you lose. Even if you're Brad Pitt, it's perfectly okay to lose against George Clooney. If you win, though... well, that's great and totally worth it, as I can tell from first-hand experience :-)

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[https://medarbejdere.au.dk/fileadmin/user\\_upload/15\\_tips\\_for\\_you\\_who\\_are\\_considering\\_making\\_an\\_ERC\\_application.pdf](https://medarbejdere.au.dk/fileadmin/user_upload/15_tips_for_you_who_are_considering_making_an_ERC_application.pdf) 15 tips for you who are considering making an ERC application

<http://tiny.cc/bugsfz>

The Danish Agency for Science and Higher Education has gathered a number of recommendations and useful links to researchers who are considering applying for a grant from the European Research Council, ERC.

The recommendations are as follows:

Before you start writing your ERC application:

1. Get hold of successful ERC applications
2. Look up ERC panel members
3. ...

- Search for previous ERC grantees within your field of research for comparison and in order to find out who you are up against. Make sure your CV is competitive for ERC (if it is not, look into how you can improve it)!
- Try to get hold on successful ERC Applications in your field of research, read and analyze them in order to get an idea of what it takes to write a successful ERC application in your field.
- Look up ERC panel members and evaluators; it can be helpful to know which ERC-panel to apply to. There are 25 panels in total (nine in life science, six in social sciences and humanities, 10 in physical sciences and engineering) – make sure to choose the right panel.
- Read the ERC Work Programme and the Information for Applicants guide in detail to the particular call to understand the grant scheme and what is expected of an ERC applicant and how to address the different parts of the ERC proposal.
- Begin in due time so you have time to get scientific feedback from peers. This could be six months or even longer before the deadline. Six weeks full time is what we often hear successful ERC

## Guide: ERC's unwritten rules

3 min read

If you are considering to apply for research funding through the ERC funding scheme, it is highly advised to first acquire a firm grasp at the ERC's very competitive requirements and expectations. Being that ERC strives to fund the most excelling research projects, it is truly a competitive grant that calls for meticulous application planning and execution. Emulating application tactics from other funding schemes is generally not enough, and most who take such a route will unfortunately find themselves un-funded by the ERC. Certainly, a great place to start is the ERC Guide for applicants. But, with years of experience, we've come to identify that there is a lot more than that which is mentioned in the guide that must be taken into account. We refer to such aspects as the ERC's "unwritten rules". Time and again, we identify another such "rule" and offer our take on how it can be achieved. Below, we've put together a compilation guide with the initial "unwritten rules" articles we believe are a true part of every ERC grant application. Continue reading below, and be sure to refer back to this guide as it will continue to update with new information.

### ERC Grant – Brining you one step closer

As you set out on the journey to fully understand the ERC grant, a great place to start is with the article which brings you one step closer to the ERC grant. This is a great overview

<https://enspire.science/category/writing-a-winning-grant-application/>

- Your CV cannot be improved fast, work on it long-term:
  - you must go for a postdoc, best to a well-known (famous?) lab and / or professor
  - establish independence – publish without your PhD supervisor
  - aim at top journals and conferences, quality, not quantity matters
- It's extremely difficult to write a good ERC proposal without feedback from someone experienced (grantee, panel member, ..)
- It's extremely difficult to write a successful ERC without sufficient time
- Understanding “Breakthrough nature” and “High risk, High gain”.

- Part B1. 10 pages. 5 project, 5 CV – related  
*In my opinion, B1 is key to success.*
  - The reviewer reads it first. If (s)he gets *excited* about the idea, details in B2 (workplan, financial stuff) won't matter.
  - B1 is read with a fresh mind and eyes, full attention, write in informative, compact style
- Part B2. 20 pages. Must make sure the methodology is feasible.  
Different styles of writing:
  - First work hard on B1, copy essential parts and extend to B2
  - Write B2, distill to B1
  - Work on both in parallel
- The interview. *Will not be covered today.*



- the review form is available online. Get familiar with it. Try to make sure the reviewer can positively answer the question, possible with your words!
- Panel members decide whether your proposal reaches stage 2, on the basis of B1. Only then specialist reviewers, as well as panelist, look at B1 and B2.
- The panel covers a large area, four panelist will review you project. Consequently, they mostly won't be experts in your narrow area. Perhaps none will be.  
*A project that is exciting for “non-specialist” has a much higher chance.*
- In Stage 2, half of the reviews are from panelists, and by being present at the interview and the discussion, they have higher impact, thus  
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- For each publication, make sure it is clear what you consider it important:
  - highly-cited
  - award-winning
  - I am the first author, it's in the #1 journal in the field,
  - I am the sole author ...
- In different areas covered by the panel, different signs of excellence might be valued, do check e.g. :
  - giving a keynote
  - co-authoring with a superstar (“this guy collaborates with the best of the young generation”)
  - Your ex-PhD work in prestigious positions (in academia)
  - ...
- Forward statements to B2 .... *Feasibility of the approach is discussed in detail in section B2*

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# Questions, please!