# 7 tips to help you get funding for your engineering research

Most researchers come across grant applications at some point in their careers. In fact, many positions depend on them, whether they are doctoral students who require fellowships, postgraduates setting up projects as they start employment, or more senior staff who need to have a steady stream of research projects. Although a significant amount of money is available from governmental bodies, charities and commercial organizations, there is a large pool of researchers, so it can be a very competitive landscape. Developing a grant application can feel daunting at first, but with practice and good support, becomes easier with experience.

## Here are 7 tips to help you in your funding application:

### 1. Get the right people on board

It's essential to work with colleagues who are genuinely interested in the proposal, and can see its value. There are people who really get involved or those who have little input ('passengers'). The latter might be acceptable if the person is well-known (their implicit support can help the review) and they can give a brief overall impression of the project. But colleagues who actively develop the proposal with you are ultimately required. Make sure that each facet of the project is represented by someone experienced in that field. For PhD fellowships or small scale studies, only one or perhaps two other people might be enough to give constructive comments, so choose these people well. Colleagues who spend time on it will make you feel more supported and more confident.

No matter how good you think you are at writing, getting a fresh pair of eyes to look at the content almost always raises things you have not spotted before. This can only improve the application. It is much better to iron out major problems before submission, rather than having the funding body reviewers identify them. The more revisions made, the better the application will read, increasing the likelihood of success.

### 2. Identify what makes your project special

Many researchers often do not spend enough time describing the background to their project in a relevant way. The following key questions are useful to address:

* What has been done before on the topic (use evidence that directly relates to the project)?

* Why is my project different to others? Is it the first of its type, the largest, uses a new technique, or repeats a previous study but is better designed?

* What is the potential impact on knowledge or engineering practice? Not all studies change practice, and this is perfectly acceptable. So, be realistic about what can be done with your results and conclusions; though being a little optimistic is much better than exaggeration.

### 3. Be clear about your methods

This is perhaps the most important part of the application. It is better to say too much than too little, depending on space restrictions. The design needs careful explanation. Remember, you may know what the planned project involves in detail, so you are writing the application for someone who has no idea. Be clear about the methods used in your study, what will be done and how you will measure the outcome. Writing the study objectives or hypotheses in simple language will always help reviewers.

## 4. Be realistic but do not overestimate costs

Some researchers think that funding organizations have a bottomless pit of money. This is never the case. Of course, you need to specify all the items (such as staff, laboratory consumables and equipment, travel, etc.), but avoid over-estimating the costs. Small, low impact, but expensive studies rarely represent good value for money. It is always best to minimize costs, while ensuring there is enough money to do the study. If appropriate, get two or more quotes for expensive items. And, ask for help from the finance officer at your institution who has experience with applications; it is in his or her interest too to maximize your chance of getting funding.

## 5. Know that reviewers and funding committees are not 'out to get you'

The reviewers and committee have a duty to make sure the limited money available is well spent. It is in the interest of the funder to support good research, and they will look at innovation, potential impact, financial costs, feasibility, and expertise of you and your co-investigators (but you do not necessarily need to score highly on all of these to get funded).

When you first receive comments it is common to feel hurt and defensive if they appear negative. So the first thing to do is to step back and try to read it from their point of view. Many researchers find comments less negative after they have carefully gone through each comment in turn. There are occasions when some comments are unfounded and may seem malicious, but most of the time they represent genuine misunderstandings or a lack of clarity in the application. Remember also, that your proposal might be perfectly acceptable and scientifically sound, but there may just happen to be more submitted projects considered to be better, often in terms of potential impact or value for money.

## 6. Don't be put off by rejection

Almost every researcher, no matter how well-established and experienced, has had applications rejected. And there is no such thing as the perfect study or application. As long as you and your colleagues believe there is sufficient merit in the project, it is worth submitting to several funding organizations, one after the other. But, make sure that you address the comments and criticisms raised before applying for the next one.

## 7. Find out where to get funding

Especially if you are at an early stage in your research career, it is not always easy to know where to go to get the funding you need for your research.

We like this list (scroll down to the Science & Engineering section):

## 100+ places to find funding for your research

## Further reading:

Top 10 tips on how to get funding
(Cornell University)

Research Funding: 10 tips for writing a successful application
(theguardian.com)

With thanks for permission to adapt an original blog post by
**Professor Allan Hackshaw**, University College London.
Your friends in Health Sciences may want to read Allan's book
***How to Write a Grant Application.***

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