Applying for an ERC grant: personal advice by Fernando Maestre – recipient of two ERC grants

This piece is a reprint of original postings by Spanish researcher Fernando Maestre, Director of the *Dryland Ecology & Global Change Lab* at Universidad Rey Juan Carlos and recipient fo two ERC Grants (Starting Grant Fellow in 2009, Consolidator Grant Fellow in 2014).
He shares his exceptional experience in blog postings here and here .

My personal journey to obtain Starting and Consolidator Grants from the European Research Council

I applied to the StG in 2007, the first year that this program was launched. At that time, I was a "Ramón y Cajal" post-doctoral researcher trying to create my research group at Rey Juan Carlos University, which I joined in late 2005. I did not have to think much about applying to the first StG call, as I felt that my CV had the profile the ERC was looking for and I had (IMHO) a set of ideas that together could make a project fitting the "high risk high gain" philosophy of the ERC and that could not be carried out by the resources provided by the research projects we can obtain in Spain. I work hard on my proposal, which took me over five months to write and was derived from ideas I started to mold in my mind since I was a PhD back in Alicante around the early 2000s. I made it to the interview stage, but did not perform very well, and after my interview I had the personal feeling that I was not going to get funded, as it was finally the case. I prepared the interview the best I could, but since it was the first time these interviews were held nobody knew how they were and presenting your project in front of a broad life sciences panel and dealing with a broad range of questions (some expected, some not) in real time is something I was not well trained for. To my surprise, the decision letter came with a recommendation for funding (with a low priority), which is certainly a nice and very polite way to tell you that your idea/project is really good but will not get funded this time. Despite this rejection, the overall message from the review process was very supportive of my background/CV, ideas and project. Rather than on the quality/ground-breaking nature of the science underlying my project, the reviewers and panel members had some doubts about whether I was ready for handling the large and complex project I was proposing to do.

While it was hard getting to the interview stage and not being funded (you feel like drowning when you are reaching the shore), this first experience with the ERC was very positive for me. Writing my

project helped me to sort out my ideas and to frame them into the bigger context, and the interview was not only an excellent training, but also a reminder of the importance of presenting your research in a way that colleagues not working in your field (there was only an ecologist among the panel members that evaluated my proposal) can understand it and appreciate its importance and relevance. And for making it to the interview stage and for obtaining a recommendation for funding by the ERC the Spanish Government awarded me with 100000 € to start my project and to further develop the ideas underlying it, an amount that had a very positive impact on my research and lab at the time.

Given this first experience, and the encouraging reviews received, I tried again on the next StG call. I improved my project as much as possible per the feedback received (but it was basically the same project, as no major flaws were identified during the first evaluation), and my CV had also improved compared to the first time I applied (albeit I did not have any paper in Science/Nature/PNAS as a first author at the time, so in my experience it is not mandatory to have them to obtain a StG!). I worked for another four months on the project, had it evaluated by several colleagues before submission and used a new review service established by the Spanish Ministry of Education and Science, which I found very useful to improve multiple aspects of my proposal. I reached again to the interview stage, which I prepared much better than the previous year (including a “fake” interview I made in Barcelona organized by the Spanish and Catalan agencies in charge of research and EU funding). I went to Brussels more relaxed than the previous time and with a clear feeling: I have nothing to lose and lots to win. The interview was a “déjà vu”, as the panel members were the same that interviewed me the first time. But this time I was better prepared and I had the overall feeling after the interview that I did much better than the previous time. And having control over my presentation (the first time I did not control the presentation and that was very stressful for me) and giving it in front of a round table where I was quite close to the panel members also helped (let aside the extreme courtesy and politeness of all panel members during the interview). I left Brussels happy and with the impression that whatever was going to happen I could feel proud to have done the best I could (as we like to say in my hometown “el que hace todo lo que puede no está obligado a más”).

And then the great news arrived in July 2009, when I read a letter signed by the ERC president saying “I am very pleased to inform you that the panel has recommended your proposal for funding at a sufficiently high position on the priority list, which is expected to allow actual funding. I offer you my warmest congratulations for this success.” This was a very exciting day that I still remember quite

well. Once I digested the news and all the paperwork between my university and the ERC was done, my StG (BIOCOM) started in January 2010. During the previous months I made the selection of personnel to be hired with the project and prepared myself for the new responsibilities and obligations I acquired with the ERC. Getting ERC funding is great for multiple reasons, but it also made me from the beginning feel "the pressure" of making a qualitive jump in our research and starting to publish it in high profile multidisciplinary journals, something that in most cases does not depend on the amount of funding you have. So, I worked really hard from day 1 of BIOCOM with the idea of fulfilling its objectives, and with the support of all project members, which were really involved in the project and to whom I am much indebted for, and international collaborators I can say that we succeed in achieving most of the objectives initially planned.

My StG allowed me to create and maintain my research group in a very difficult time to do so in Spain and substantially contributed to increase my profile within my university and the national and international research community I am part of. It also allowed us to build and maintain state-of-the-art laboratories and experimental facilities to conduct ecological research, and our work resulted in the publication of dozens of articles in top disciplinary and multidisciplinary international scientific journals (including articles in *Science*, *Nature*, *PNAS*, *Nature Communications, Science Advances, Ecology Letters* & *Nature Ecology & Evolution*), and in the establishment of the first global network of field sites aiming to study the relationships between ecosystem and functioning in drylands *(see this post in Spanish for more information about this global survey, a post in English will hopefully follow soon*). And most importantly, BIOCOM supported the work and training of six technicians, seven PhD students, three postdocs and dozens of undergraduates and international visitors conducting short-term research stays in my lab. Most of these students and postdocs are now making its own way towards independence and are having already a large impact with their research within their respective research groups. Beyond all the good things that the BIOCOM has provided to me as a person and as a scientist, the possibility of attract excellent young scientists and to provide them with the resources to fulfill their potential is without doubt one of the most important "legacies" of the ERC funding.

At the end of my StG I was quite tired and was planning to take a one-year without new projects to continue publishing the data from BIOCOM and to calm down a bit. However, two facts made me change my mind to apply again for ERC funding: 2014 was the last year I could apply to a CoG and I could not maintain my current research group structure without the support of a grant such as a

CoG. Hence I embarked again on the journey of writing a CoG proposal, which I took as a personal challenge: could I think/write another competitive proposal for the ERC after five years? This was not an easy task, as I had to think about a groundbreaking/high risk-high gain proposal but without departing from my current research program (something that I did not want to do given all we had built with the BIOCOM project). I worked hard again for over five months on the proposal, and received lots of inputs from many colleagues (I am particularly grateful to Jim Reynolds, David Eldridge, Osvaldo Sala, Brajesh Singh, Santiago Soliveres, Manuel Delgado-Baquerizo, Jorge Durán, Pablo García-Palacios, Nicholas Gotelli, Sonia Kéfi, Matthew Bowker and everyone in my lab for all their comments and suggestions [my apologies if I forgot naming anyone!]) and from the review service established by the Spanish Ministry of Education and Science, all of them very useful to improve my proposal. By the time of submission, I had a project idea I could feel proud of, so whatever happens next I felt satisfied because I did my best to get the best proposal I could write at the time.

I was very pleased when I learned some months later that I made to the interview stage. Contrary to my experience with the StG, this time I had much more to lose if I do not get the CoG, as I knew that I could not maintain my group without the ERC funding. In addition, the preparation for the interview came at a very stressful time for me, as I had to do it during the peak of my teaching semester. I worked really hard preparing the interview, made again a “fake” interview in Madrid organized by the Spanish Ministry (which was very helpful), prepared in advance dozens of questions I could asked, polished my presentation as much as I could (I cannot recall how many versions I made!) and assayed many, many times my presentation alone in my office, in meetings with my lab members and over Skype with colleagues from abroad. I went to Brussels again with more tension than the previous time but with the feeling that if I fail at least I did whatever was in my hands to succeed. The interview went well (albeit at the end of it I had the feeling that I could have done better, I guess it is always the case) and some months later I got a letter from the ERC regarding the outcome of the evaluation process. This time I was really nervous when opening the e-mail and the seconds until I opened the official documents felt like hours. It was an enormous relief for me knowing that I got funded again, and I almost cried when I read the reviewer´s and panel member´s comments, which overall were extremely supportive of my project and my background/CV, as well of what we accomplished with BIOCOM. I keep very clear moments of the day I got the notification from the ERC, as the fortune wanted it to be just the next day after two applicants obtained Marie Curie fellowships to come to my lab and some days after Nicolas Gross also obtained funds from the Agreenskills+ program to spend a two-

year sabbatical in my lab (life sometimes has these very nice coincidences). So we made a quick celebration on that day (taking measurements programmed in one of our experiments, science does not stop!), and a larger celebration with all lab members some days later before I started to digest the news and prepare myself for another five years of exciting research and fun ahead. My CoG (BIODESERT) started on January 2016 and right now is going at full speed, so we are moving it forward as planned. I will keep everyone posted via twitter on the development and outcomes from this project.

In sum, my journey to obtain, manage and develop two ERC grants has been a journey full of hard work, illusion and passion for the research I love doing. This has also been a journey where I have further realized that we are more often than not surrounded by wonderful collaborators, and where I have also further appreciated all the immense (and often unpaid) work and efforts put by all our colleagues that devote their expertise and time to review our ideas and proposals without expecting nothing in return. There has been many good moments (and also some stressful/bad ones) over this period, but the overall balance has been tremendously positive, both from the personal and professional points of views.

I am a really privileged person for being supported twice by the ERC so far, a funding that allowed/is allowing me not only to work with the freedom and resources needed to fulfill my potential as a researcher, to set up/consolidate my lab and to being able to execute my dream project/s, but to provide the opportunity of an excellent cohort of technicians, graduate students and postdocs to get trained and launch their careers doing novel, ground-breaking and exciting science. Hence, I would like to finish saying MANY THANKS! to the ERC panel members and reviewers for believing in my ideas, and I hope that the ERC will continue fulfilling the dreams and recognizing the ideas of the brightest minds working (or planning to work) in Europe for many years to come.

Some personal advice for applicants to the Starting and Consolidator Grant programs

I have been in meetings where university/government officials encourage everyone to apply, and I think this is not a sound advice given the characteristics of the projects/profiles funded by the ERC. Apart from checking the official ERC guidelines of the Starting and Consolidator Grants programs, the first advice I give to all potential candidates asking me if I think they could have possibilities with the ERC funding is always the same: look yourself into the mirror and check your CV/ideas/project against those from people that have been funded in recent ERC calls. You certainly need a strong CV

that shows your potential, but I know cases of excellent CVs that did not get it an ERC grant, and of good (but not outstanding) CVs that got it. Albeit they undoubtedly help and many candidates have them, in my experience it is not a prerequisite having papers in top multidisciplinary journals (e.g. *Science*, *Nature*, *PNAS*, *Nature Communications*, *Science Advances*…) as a first/corresponding author to obtain ERC funding, particularly in the case of Starting Grants. Having a very good/excellent CV is a requisite of competitive candidates, but having a really good, ground-breaking and risky project (according to the high gain/high risk philosophy of the ERC) is a must if you want to get funded by the ERC. If you have doubts about the competitiveness of your CV or ideas think twice before making the effort of preparing an ERC proposal, doing so takes a lot of time and if you do not get a ranking high enough you may lose the opportunity to submit in the next call (this is a particularly important thing to consider for those candidates approaching the years since the PhD defense deadline).

If you decide that your ideas/project fit the philosophy of the ERC and your CV/profile is competitive, here is some advice for writing your grant:

- Take your time to develop your ideas and write your project. As an example, I spent over five months working in each of the projects I submitted to the ERC, and much more time developing the ideas presented there (indeed I developed some of them several years after initially thinking about them).
- Prepare your budget accordingly to the needs of the project and do not inflate it. The ERC will not fund the typical projects that can be funded by national funding agencies, so do not make the mistake of taking a "normal" project and increase its budget by adding, for instance, PhD students, technicians and postdocs and/or analyses that are not fully justified.
- Have your project revised by several colleagues before submitting it and use the review services provided by your university, research center or country (many countries have national services that help applicants to prepare their proposals, and many universities also offer this service). ERCs National Contact Points at each country can also help with the preparation of proposals, so do not hesitate to contact them at the beginning of the writing to be aware of all opportunities for help.
- Space is precious in ERC proposals, so be as concise as possible and do not include any non-essential text. Use also graphical information (diagrams, preliminary data, pictures) as much as space allows it, as it substantially helps to make the proposal more attractive and easier to read by reviewers

and panel members. Importantly, do not write a “thick” proposal packed with text and without any space separation, as it will be more difficult to read.

- Do not be obsessed about including the typical Working Packages that can be found in most EU proposals. Do not include them if they do not help to organize/clarify your project (as an example I did not include WPs in any of my ERC proposals), but of course use them otherwise.
- Include a diagram showing how the different parts/WPs of your project are linked together. I found them helpful particularly when your project has multiple tasks/WPs (as is usually the case with large and or complex projects such as those I presented).
- In the part of the project devoted to your CV make sure to emphasize those aspects of your profile that make you particularly suitable to carry out the research project successfully, and do not forget to highlight your potential to become a research leader in your field (or to consolidate your profile/research group it in the case of a Consolidator Grant).
- And last, but not least, try to submit your project well in advance the deadline (you can always update it if needed until the deadline). This will prevent last-hour problems caused by collapses in the server on the very last day or by other unexpected issues (for example I know a case of a person that could not submit a proposal because he/she got sick the day before the deadline and had to go to the hospital).

If you have passed the first cut and are called to an interview, many congratulations! Most applicants do not reach to this stage, and from now on your chances to get the project funded have increased considerably. Here are some tips that may help you to prepare the interview:

- The interview is a critical step in the evaluation process, so prepare it the best you can. This implies making multiple trials, preparing questions, attending the “fake” interviews at your university/research country (more about my personal experience with the interview in this blog entry).
- Make sure you can give your presentation within your allocated time. This is crucial; if you cannot make it on time it will cause a bad impression to the panel members and you will be stopped, which will likely make you more nervous for the questions/answers phase.
- There are plenty of recommendations out there about how to prepare a good presentation, so I will not say anything you have not heard before: do not use too much text, make sure that panel members pay attention to you and not to the

PowerPoint and use your body language as part of the message you want to give. I found this book on giving effective presentations particularly useful to improve mine (sorry, it is in Spanish), so you can find similar books useful too (there are dozens of them).

- Limit your presentation to the core aspects of the project, emphasizing its novelty/groundbreaking nature and relevance rather than your CV. I always recommend to follow the "1 minute rule" in the presentations: if you have 10 minutes, do not add more than 10 slides (the cover slide does not count).
- This is obvious, but plan to be in Brussels the day before the interview to avoid delays/problems with public transportation.
- Do whatever works for you to get as quiet as possible before the interview. In my case a valerian pill and being well ahead on time at the ERC headquarters helped to get my stress under control before the interview.
- Be ready for the unexpected; things such as giving your presentation without the PowerPoint because the power went out during the interview may occur (believe it or not this happened to a colleague of mine that eventually got the grant, so if this happens it is not the end of the world :).
- All panel members are top scientists that are also leaders in their respective fields, but their expertise may not be particularly close to your specific project. Since all (or a clear majority) of them need to be convinced by your project and your capacity to carry out the research proposed successfully, you must present your research in a way that colleagues not working in your field can understand it and appreciate its importance and relevance.
- While you can expect to get questioned about "typical" things such as the novelty/ground breaking nature of your research project and/or about your ability to carry out the research planned, you must be ready for all sorts of questions, from the very broad (e.g. what´s your view about the future of your discipline) to the very specific (e.g. how are you going to consider this part of a technique you want to use).
- The panel members are extremely polite during the interview, so do your part when answering questions even if you think that the question was not relevant and/or pertinent.
- Be concise and to the point when answering the questions, do ramble if you do not know the answer. The more questions you can answer during your allocated time, the better.
- Think about the interview as an "elevator pitch". Panel members will evaluate dozens of candidates and they will select only over half of them. So, do your best to make a positive impression on the panel, one that its members will remember at the end of the day (by doing everything on time,

by answering the questions concisely, by responding in a respectful manner and by showing that your project is not only cool and exciting/ground breaking but also that you are the right person to execute it).