



Doing the research is not enough. The results must also be communicated. Photo Mats Hannerz.

Formas: “Communication must be integrated”

Both research communication and collaboration with stakeholders have become increasingly important when applying for funding. News & Views asked a main funding agency in Sweden for advice on how applicants can address this criterion.

The Swedish Research Council
Formas is a national research council supporting environmental, agricultural science and spatial planning research. In 2016, Formas distributed governmental research grants worth 1,2 billion SEK, with additional financing coming from other research funds and the EU. The annual open call usually attracts thousands of applications, and only a share of these will receive funding.

An applicant to Formas is obliged to describe not only the research

plan, but also communication and the potential impact on society. Elisabet Göransson is a senior research officer responsible for environmental and agricultural sciences at Formas. She agrees that communication has become more important.

Communication one of five criteria

– The applicant is obliged to address five criteria that all have an equal weight in the evaluation. One of them is communication with stakeholders or users, while another is the potential societal value of the research question. Thus, high scientific quality is not enough to attain funding, she says.

The evaluation committees grade all of the criteria in the application from 1-7, with the top grade being “outstanding”. A top grade in the communication criterion is of course not enough to receive funding, but

it definitely improves an applicant’s chances.

Support for better communication plans

Clearly, the communication plan is an important part of the application. However, communication plans have greatly varied with respect to quality over the years, and often include gaps in the descriptions of target groups and/or how the researchers will collaborate with stakeholders and society. To strengthen the communication criterion, Formas now offers support on its webpage to help applicants strengthen the communication part of their proposals. Elisabet Göransson highlights some of the advice:

–Societal relevance is very important, and applicants will



Formas communication, cont.

therefore need to identify the target groups of the research and explain how they will communicate with these stakeholders. I highly recommend applicants to contact the potential stakeholders in advance rather than after the research has been completed.

Formas does not require that a specific share of the budget is allocated to communication, but Elisabet Göransson advises applicants



Elisabet Göransson, Formas: "It is highly important that communication is an integrated part of the research application". Photo: Elisabeth Olsson Wallin.

to also describe other communication means and financing.

– It is common that a research group don't directly communicate a specific research result, but instead a "project portfolio" where the specific research item is part of a larger project, she says. But this needs to be described in the application.

Open access

Another important part of communication is to make the research easily accessible to potential stakeholders. Therefore, Formas requires that research results are available through Open Access within six months of publication. Open Access means that a publication can be freely read or downloaded from the Internet.

Researchers who receive Formas grants can publish in either journals that offer Open Access, or that archive published articles in large, public databases. They can

also publish the results in an open archive, for example, on the institute's website. Formas can finance the cost of publishing in a journal using Open Access if this is specified in the application.

Follow up of communication

A requirement for all Formas-funded projects is a final report, which must include a popular summary in Swedish. However, much of the communication occurs after the final report, as the process of scientific publication can sometimes be long. Formas cannot control this long-term communication, but Elisabet Göransson reveals that it is something the council wants to look over.

– We trust that the applicants will do as they promise in their applications. We will, however, review and develop the reporting to have better control of the communication and collaboration with stakeholders, she says.

Read more: www.formas.se

Questions to address in the application

Briefly modified from Formas' instructions:

1. What is the aim of your communication? Why do you need to communicate the information, and what will the communication support?

2. What is the objective of your communication? What do you want to achieve? Note that this does not mean only a description of the objective, but also the means by which the actual communication will be performed.

3. Which target groups are the most important in terms of communication? Why? Consider which target groups will benefit most from learning about the results of the project. Describe the target group(s), as well as why you believe it is important for this/these particular target group(s) to be informed about the results of the project.

4. What do the respective target groups need to know? What will they gain from the knowledge? One way to delineate what type of communication a specific target group needs is to consider how you would like them to think, feel, or act after they have received the information.

5. What previous experiences do you have in working with the dissemination of research results? What has this experience taught you with regard to tangible activities and what are the most important reflections you have from this experience?

6. Are there any planned initiatives and/or means for communication at your institute that will benefit your project and that you would like to highlight? What are these? Describe how this support will benefit your communication work in the current research project.

Finland: Park investments pay back ten-fold to society

Finnish national parks and hiking areas need continuous investment for maintenance, buildings, trails and other services. However, these investments provide a good return according to evaluations undertaken by Metsähallitus, the state-owned enterprise that oversees national parks and other forest and water areas.

The most significant local impact can be seen in the tourism centres where visitors stay for a longer period. In 2016, the 39 national parks in Finland generated an income of 179 million euros and more than 1700 jobs. An additional benefit of the investments is that they can help prevent adverse impacts on nature. For example, investing in more durable hiking trails prevents erosion.

An increasing number of visits

Finnish national parks are popular among visitors. In 2016, the 39 national parks in Finland received over 2.8 million visitors. This is a large number considering that Finland only has 5.5 million inhabitants. The number of visitors continues to grow, with a seven percent increase from 2015 to 2016.

The most visited park was the sprawling *Pallas-Yllästunturi National Park* in northwestern Lapland, which received 0.5 million visitors. The local impact of this park is estimated to amount to 60 million euros.



Kevo National Park, Finland.
Photo Karl Brodowsky,
Wikipedia commons.

Calculation of local benefits

The method for calculating the local benefits of national parks was developed by Parks & Wildlife Finland and the former Metla (now part of Luke, the Natural Resources Institute of Finland). The method is based on the MGM2 model, which was developed for the US National Parks Service by Michigan State University. The method uses visitor numbers, their spending figures and multipliers describing the flow of money in the local economy.

Read more: <http://www.metsa.fi/web/en/economicbenefitsofnationalparks>

Sweden also believes in the benefits

The Swedish Environmental Protection Agency (Naturvårdsverket) manages the national parks in Sweden. Annual investments in these parks ranged between 8 and 25 million SEK in 2014-2016, says Claes Svedlinth, head of the Nature Department at the agency.

A study similar to that in Finland has not been performed in Sweden, but Claes Svedlinth is convinced that the benefits of park investments exceed the costs. He refers not only to studies made by the agency, but also to research by the European Tourism Research Institute (ETOUR) at Mid Sweden University.

– The study by our agency surveyed visitors' evaluations and estimated costs for visiting national parks in Sweden. Figures of 736 SEK per visit and 2,2 million visits per year to our 29 national parks amount to 1,7 billion SEK in a single year. Even if there are uncertainties about how carefully visitors answered the questionnaires, the results nevertheless

indicate that the public's valuation of the parks exceeds the necessary annual investments. Moreover, some of the visitors' expenditures impact the local businesses, such as shops, restaurants and lodging, he says.

Which investments are the most efficient?

Even though he does not have exact figures, Claes Svedlinth believes that walking trails, bird towers and prepared viewpoints attract many visitors and are good targets for investment. Furthermore, Claes feels that investments in communication, for example, the information that is offered at visitor centres ("*Naturum*") and through the Internet, are also important.

– We will do more at the Swedish Environmental Protection Agency



Claes Svedlinth, Naturvårdsverket: We could do more for the tourism infrastructure in the parks, and it is well worth the investment.
Photo Mats Hannerz.

to support and develop the tourism infrastructure, but it is also important that the industry participates. This is for example done through organisations such as Swedish Tourism, Visita and the Ecotourism Association.

– We should not forget how preserving nature benefits biodiversity. This is probably the most important return of investments, he says.

Read more: www.sverigesnationalparker.se

Shortcuts from Nordic forest research

Norway

Forest cover cools the air

The cooling effects of a forest are more important than previously expected, according to a recent study presented in Nature Climate Change with Ryan Bright at the Norwegian Institute of Bioeconomy Research (NIBIO) as the first author. The researchers showed that non-radiative mechanisms, such as water vapour from trees and surface variations, are important for local surface temperatures. The study utilised remote sensing combined with field observations. The cooling effect of increased forest cover was shown for all regions in the northern parts of the USA, northern Europe and Siberia.

Read more: Bright et al. 2017. Local temperature response to land cover and management change driven by non-radiative processes. *Nature Climate Change* 7, 296-302.

Finland

Artificial light opens up for more advanced tree seedling production

New LED technology will provide new opportunities in the nursery sector. Traditionally, forest tree seedlings are grown under natural light, and additional light is provided in the spring to lengthen the photoperiod. Luke is conducting research in Suonenjoki on the potential applications of artificial light. Compared to traditional greenhouse cultivation, LED light provides a degree of flexibility in seedling production and the option to regulate light quality for desired results.

Read more: Forest tree seedlings can be cultivated even without natural light (Luke News). <https://www.luke.fi/en/mt-forest-tree-seedlings-can-cultivated-even-without-natural-light/>

Sweden

New disease threatens pines

In the autumn of 2016, the fungus *Diplodia pinea* attacked a stand of planted pine trees near Arlanda airport in Stockholm. The young trees were harvested and destroyed to prevent any further spread. *Diplodia pinea* is common in southern Europe, but outbreaks have recently been witnessed further north. The event in Sweden is regarded as a clear case of a pathogen expanding northward due to global warming. The pathologists Jonàs Oliva and Jan Stenlid will now further investigate the pathogen and make a risk assessment.

Read more: Pine trees threatened by new pathogen (SLU News). <https://www.slu.se/en/ew-news/2017/1/pine-trees-threatened-by-new-pathogen/>

Call for EFINORD-SNS networks



Don't forget the deadline for applying for new networks within the SNS and EFINORD programme. These networks will promote North European synergy within forest research and establish closer collaboration between forest research communities in the Nordic, Baltic Sea and North Atlantic regions.

Deadline for applications: Thursday June 1st, 2017.

Read more: www.nordicforestresearch.org



Artificial light. Photo Mats Hannerz.

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News & Views is a newsletter from SNS containing short, popularized articles covering Nordic forest research and forestry. Articles presenting SNS-supported activities are prioritized. The newsletter is published eight times per year, and is available for download from the SNS and Scandinavian Journal of Forest Research websites.



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