

The Daily Life of a Dutch Physicist

As a young man our scientist was fascinated by the beauty of physics and he was grateful for the possibilities he got to participate in the adventure of research. He went abroad, wrote quite a few papers, collaborated with many people all over the world and helped a little bit in building the reputation of his university. He rose in the ranks and was happy with one or two PhD positions he got from the university and for which he did not have to write long reports.

Contrast this with the conditions under which he is living now. The university no longer supports PhD positions, so where to turn?

Sometimes he dreams of being nominated for one of the four NWO-Spinoza prizes, which are awarded each year. This would give him two or three million euros for appointing several PhD students and post-docs, and which would free him from a lot of administrative work for a couple of years. However, he knows that this kind of money is not meant for him, since he prefers doing research himself rather than being “an inspiring leader with a strong record of attracting young researchers also from the abroad”.

So, his next effort to obtain support is to try and participate in one of the big NWO-programs. As a member of one of the few top research groups he is entitled to apply for a grant of about € 800 000. To start the application process he should fill out the proper application form, written in English, and to facilitate the readability he should use a font size of at least 10 points. The guidelines coming with the application form contain many instructions, some of which are: Summary; Keywords; Current grants and grant applications; Full description of the proposed research, including objectives, innovative aspects, justification of the requested budget, scientific embedding; Summary for non-specialists; Past performance.

After he has submitted his proposal (before the end of September) it goes through a very thorough assessment by several committees. Finally, in May the following year he will be informed about the final decision of the Board. The chance of his success in this nerve wrecking process is about 25%.

Fortunately, there are many other places where one can seek money to support his/her research. One is the Free-FOM-Programme, which is meant for TOP-research, i.e. the one that should be excellent, challenging, and innovative with a clear focus and large cohesion. A total amount of about € 14 M is available for four or five applicants that finally are honoured. An electronic program called *Flamingo* should be used for participation in this competition. For a proper assessment a very detailed description of the proposal should, of course, be written – but for a physicist this again is not a terribly inviting prospect.

Another possibility is offered by the recently started NWO Programmes, called *Veni, Vidi, or Vici*. The *Veni* Programme supports those who obtained their PhD degrees not earlier than three years ago; the *Vidi* is for people who got these not longer than eight years before, while the *Vici* helps senior researchers. Each applicant for any of these grants is free to participate, although it would be futile if he did not have the blessing of his superiors. Women are especially encouraged to participate in this competition.

Since also in these programmes an extensive report must be written, the University of Utrecht has decided to offer a training-and-feedback course to any applicant for

a *Veni, Vidi, or Vici* grant. Especially for a *Vici* grant fierce battles are waged, since it is considered as a stepping stone to a professorship.

In addition to the above mentioned roads to money there exist numerous institutions, both Dutch and European, that grant financial support. One of them is *Rubicon Programme* (never a problem to find a catching name!).

“The aim of the *Rubicon Programme* is to encourage talented researchers at Dutch universities and research institutes run by KNAW and NWO to dedicate themselves to a career in postdoctoral research. *Rubicon* offers researchers who have completed their doctorates in the previous year the chance to gain experience at a top research institution outside the Netherlands (maximum for two years).

The *Rubicon Programme* also offers talented researchers from abroad the opportunity to obtain grants to spend a maximum of two years in the Netherlands to conduct research.”



Photo: Zofia Golaż-Meyer

Dr. Theo W. Ruijgrok with his wife

In order to halt the falling of Dutch universities on international ranking lists the government decided a few years ago to drastically change the way of funding. Most if not all money was going to be distributed through NWO. This resulted not only in a decrease of the total amount of money available for research but also in constructing a tighter jacket into which the research should be fit. Also, the emphasis on different aspects was changed. More consideration was given to innovation and benefit to the society at large.

Most scientists began to complain about the increase of administrative pressure and the loss of freedom in the choice of their own research. They are, however, not the kind of people that spontaneously make a front against this tendency, but I am afraid that we see the beginning of the downfall of pure research. It seems that van Kampen had the correct foresight when – more than thirty years ago – he wrote: “The scientific age lasted from 1600 till 2000.”¹

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¹ Professor N.G. van Kampen is an eminent Dutch theoretical physicist. The sentence quoted is taken from an article he wrote in 1977 on the occasion of the 200th anniversary of “Het Natuurkundig Gezelschap” at Utrecht. (TWR)