

## Werk

**Titel:** Science Policy Programming Administration

**Autor:** Colson, Freddy

**Ort:** Graz

**Jahr:** 1995

**PURL:** [https://resolver.sub.uni-goettingen.de/purl?514854804\\_0005](https://resolver.sub.uni-goettingen.de/purl?514854804_0005) | log94

## Kontakt/Contact

[Digizeitschriften e.V.](#)  
SUB Göttingen  
Platz der Göttinger Sieben 1  
37073 Göttingen

✉ [info@digizeitschriften.de](mailto:info@digizeitschriften.de)

## **Science Policy Programming Administration**

FREDDY COLSON  
*Ministry of the Flemish Community*<sup>1</sup>

To begin with, I'd like to dwell a little bit on certain geographical and constitutional facts and figures about Flanders. Even though I hardly can be considered to be the most competent person to give a lecture on constitutional law - and as a consequence: I will not - I think it is important to provide you with some insight into this country's structure. Maybe, after my talk, you might feel that I have instead obscured your view. However, let us agree that; one: you will forgive me and two: that this will be primarily the result of the complicated political structure of our country.

The federal state of Belgium is divided into 3 Regions: Flanders, Wallonia and Brussels, and into 3 Communities: the Flemish Community, the French-speaking Community and the German-speaking Community. Regions are responsible for the so-called territory-related matters, such as: the environment, infrastructure, industrial policy, housing etc, while Communities are competent for the so-called person-related matters such as: health care, well-being, education, culture and so on. It is important to note that, at least in theory, these competences are exclusive: neither the federal government, nor regional governments can interfere on matters belonging to the Community's competence and vice versa. Each region and each community has its own independent parliament and its own independent government. From the first phase of the reform of the Kingdom, Flanders decided to combine the competences of the Flemish Region and of the Flemish Community into one parliament and one government. This decision is of a particular importance to science and technology, since the regions are competent for industrial research, and the communities for education and thus for academic research.

The Flemish region is located in the northern part of the country and the Flemish Community - person-related matters, remember - comprises all people living in Flanders/the Flemish Region and the Flemish-speaking inhabitants of Brussels. Wallonia/the Walloon region is located in the south and its inhabitants,

<sup>1</sup> Paper presented at the LIBER Annual Conference, Leuven 1995.

together with the French-speaking people of Brussels form the French-speaking Community. As a community, Flanders has 6 Mio inhabitants, while as a region we have 5.6 Mio, meaning exactly 60%, respectively 56% of the total Belgian population. These 56% "regional" Flemish pay 61% of the Belgian taxes, contribute 62% to the GNP and are responsible for over 70% of the total Belgian exports. These data led a former minister-president to the conclusion that Belgium is a country which is developing at different speeds.

As some of you should know and others might know, a new Flemish government has been installed recently. In this government one Minister has been given the responsibility for science and technology. In presenting the government's program the Minister-President stressed the importance its government attaches to science. This program, called: "Beacons for the 21st century", announces a substantial increase of government financing for science and technology.

The Flemish Government, together with the Flemish industry, aims at increasing these financial means to 2% of the gross regional product. It has to be noted that this objective is the continuation of clearly pronounced trend during the preceding period. Between 1990 and 1995, the Flemish science policy budget - which also includes: technological policy - increased by more than 30% from 800 Mio US \$ to almost 1.1 billion US \$. Achieving 2% of the GRP means an increase by another 275 Mio US \$.

Taking into account the challenges Flanders is confronted with, this increase is not a luxury but in fact a sheer necessity in order to maintain and to increase our level of welfare and well-being. In formulating our policies, we have to pay special attention to trends, also important internationally, such as:

- The fact that boundaries between the so-called types of research have almost disappeared. As a matter of fact no one ever believed in a clear-cut distinction between fundamental research, applied research and technological development. The present evolution, however, implies that policy makers have to consider two seemingly contradictory objectives: i.e. stimulating the social and industrial valorisation of research - and running the risk that the demands of industry on university research become increasingly suffocating - and safeguarding the autonomy and the independence of fundamental research in universities, or to be more exact: protecting the individual initiative of the researchers and research-teams, whose creativity and curiosity is the only guarantee for the advancement of science and technology.
- The disappearance of the almost exclusive relationship between a basic scientific discipline and a sector or domain of application. Chemistry, for instance, is not only important for the chemical industry, but also for the production of very large integrated circuits

which would otherwise be impossible without the input from chemical research.

- An evolution of particular relevance to Flanders is the fact that university education and academic research are becoming less and less intertwined. This does not mean of course that the results of academic and other research should not remain the substratum and the basis of high-quality academic education. However, taking into account the size and scale of Flanders, one can imagine that university research policies and educational policies will be developing separately in order to provide students with an education by top professors and at the same time to maintain or to create the necessary critical mass to carry out top quality research. As a matter of fact, Dutch colleagues informed me yesterday that the reform of the Dutch higher education systems will develop along these lines.
- The internationalisation of scientific research, important for any country, also bears a specific significance in the case of Flanders. As a small region in the heart of Europe, blessed with a highly performant scientific potential, Flanders can act both as a facilitator and a catalyst in this internationalisation process.

The broad lines along which the Flemish Government plans to act in facing these and other challenges are laid out in the program I referred to earlier.

### **1. Fundamental research**

During the last 15 years, the responsibilities for science and technology of the Flemish Community developed from "competent for applied research for the matters they are competent for" and a budget of hardly 20 Mio US \$ to the primary competence for science and technology - granted by the revision of the law in 1993 - and a budget of 1.1 billion US \$. However, due to a number of reasons - among which the not very favourable economic situation of our country - the financing of fundamental non-oriented research remained practically the same in nominal value - and thus decreased in real value - during the eighties. During that period education was still the competence of the Federal Government.

In the first half of the nineties, after the competence for education had been transferred to the Communities, the increase in fundamental research funding was equal to the increase in the means for industrial research. The present Flemish Government wants to accelerate the pace of increase for the financing of fundamental research. Three instruments will be reinforced in this respect:

- a) an increase in the basic financing of the university personnel and operation cost;
- b) a substantial increase in the extra funds for non-oriented research, allocated to each university and distributed within each university on a competitive basis;
- c) an increase in the financing of non-oriented research and of doctoral students and post doctoral researchers through the National Science Foundation, where financial means are allocated through an inter-university competition.

However, this objective of the Flemish Government does not translate into a blank cheque to the universities. On the contrary: in exchange for greater autonomy and increased research funding there will be also greater accountability and rationalisation. Universities will be asked to strengthen inter-university cooperation, to focus on the building of centres of excellence, to implement adequate mechanisms of quality control and to provide the Government with the necessary information to control ex post the management and the performance of the universities and their research teams. At the same time, universities, research institutions and companies will be stimulated to elaborate concrete, coherent and comprehensive research policies which can be confronted with each other and with the priorities set out by the Government.

All Flemish universities face one common problem: the need to replace 50% of their academic staff in a period of ten years. The Flemish Government will put in place instruments to facilitate this operation, instruments that have to be integrated in the human resources management at the universities.

## **2. Oriented Research - Applied and Industrial Research**

Flanders is a country of SME's. There are not enough large companies in Flanders in order to act as an adequate market-mechanism to formulate demands towards SME's which would stimulate them towards technological innovation. Therefore, the existing instruments for industrial research funding will be reviewed and, if necessary, re-oriented in order to:

- a) increase the capacity of SME's to absorb available technology, including the setting up of more appropriate mechanisms of technology transfer;
- b) improve the opportunities for SME's to participate at or to execute in house research or technological development projects;
- c) stimulate the creation of spin-off companies or, more generally, the founding of new high-tech companies.

Another mechanism will be investigated, aimed at the social valorisation of research which, past the stage of fundamental research, has not yet attained a level at which it is interesting for industry or the private sector or which is of such a nature that its results are important from a social or cultural viewpoint but offer no perspective towards industrial or commercial valorisation whatsoever.

### **3. International Cooperation**

Although the Flemish Government believes that the setting up of international scientific and technological cooperation is the prime responsibility of universities, research institutions and companies, it will go on assuming the role of initiator and stimulator towards certain aspects of this cooperation.

The instruments, already in place for stimulating the participation of Flemish researchers in international research efforts, such as the 4th framework program of the EU or to improve their access to large research facilities, will be strengthened. The bilateral cooperation, already under review during the previous period, will be more focussed on a limited number of countries and regions but, at the same time, will increase the opportunities for building a more intense and long lasting relationship. The component of inter-university cooperation will also be present in this mechanism.

### **4. Information on Science and Technology**

Information on science and technology requires a multi-dimensional policy which pays attention to the different target groups as well as to the different objectives to achieve.

For the general public, these objectives can be summarized in three words: awareness, sensibilization and accountability. It is the Government's task to increase the awareness of the population with respect to science and technology and the impact the latter have in the day-to-life. Educating the population in general and the youngsters in particular in order to assure the need for researchers in the future is a second task. The general policy, approved by the previous Flemish Government, will be continued, extended and strengthened in order to create a continuous flow of information to the Flemish population.

Informing "the world" about the Flemish research potential, both in universities and companies, is a second pillar of this policy. Instruments such as thematic publications, the W-line (science line) and databases on current research in Flanders will be optimized and the last two will be made available through Internet. The existing cooperation with similar initiatives in other European countries will be continued and intensified.

Providing information to researchers is, with respect to this topic, of special importance.

The internationalisation of science and technology referred to earlier, is reinforced by the existence of communication networks between researchers. Belgium as a whole is in the not very favourable position - and this is putting it mildly - of having access to the international research community's network through Belnet, a facility operated by the Federal Government and providing a capacity up to 2 Mb and experimenting with capacities of over 600 Mb. As far as we know, the Federal Government has no intention to improve things in the short term. At the same time, Flanders is considering the creation of Telenet Flanders as a comprehensive telecommunication initiative. The upscaling of the facilities for Flemish researchers to participate in international communications networks must be one of the priorities of the Flemish government in creating Telenet Flanders.

Providing documentary services is a second aspect of this topic on scientific and technological information. The scientific library is and will remain one of the basic tools for researchers. I am not that astute to predict what these libraries will look like ten or twenty years from now, but researchers will remain dependent on the availability of scientific information which is shared collectively, rather than on a person-to-person basis as is the case in the communication networks mentioned earlier. Here again, Flanders can be seen as the driving force in Belgium. The Flemish scientific libraries, members of the VOWB, at which also representatives of the public libraries participate, developed initiatives to create a central Belgian catalogue. In addition, they are also busy complementing and completing Antilope, the catalogue of journals and investigating the possibilities and opportunities of a Flemish Electronic Information Centre. For years, the Flemish Government supports these actions, morally as well as financially. The VOWB aims at integrating collective catalogues, bibliographical data and directories and primary sources into this centre. In order to achieve this, there are two problems to solve: a competences of Flanders and Belgium. The ultimate goal however must be to provide researchers with the riches of international literature as quickly as possible, and why not: instantly. Although neither the Flemish Government, nor the Flemish Minister for Science and Technology has taken a decision on this proposal, I feel quite confident to say that he is considering it with a positive prejudice. The recommendations of my administration towards the Minister support the viewpoint of the VOWB and encompass a scheme to finance VOWB's project. However, we think that the chances for success for such an operation depend largely on four factors:

- international cooperation with public and private partners, with of course the Netherlands as a "natural" first choice, but not limited to one specific country. This holds true for technological problems and

for legal/commercial problems. The existing collaboration between ISI and IBM or other similar initiatives could provide the perfect opportunity.

- internal cooperation between Flemish universities. I feel that by now we should have passed the point where the question "who provides what" is more important than the question "what can be provided collectively". This also implies formulating a common policy towards collection formation and specialisation of individual libraries.
- extension of the initiatives to schools of higher learning - which is already the case to some extent - and, in the long run, opening the university libraries and their documentary facilities to the general public;
- extension of the EIC-initiative towards non-university research institutions and companies, both as information providers and information users.

Maybe it is superfluous to add that Flanders is not a region which keeps to itself, forgetting that it still is united with the other regions and communities in one country. We would welcome these other Regions, Communities and the Federal Government to join us as full partners in the development of this virtual library.