Thérapie 2015 Janvier-Février; 70 (1): 103–109
DOI: 10.2515/therapie/2015007

What Strategy Should France Implement for H2020?

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Text received January 29th, 2015; accepted January 30th, 2015

Keywords:
France; Europe; FP (Framework Programme); R&I (research and innovation); Horizon 2020; information; education; incentive; value; pooling

Abstract – The initiation of Horizon 2020—the European Union's 8th Framework Programme for Research and Innovation, allotted a budget of 79 billion euros—provides an opportunity to review France's participation in previous Framework Programmes. Indeed, French participation does not match either its scientific importance or its financial investment. While France contributed 16.5 to 17% of the EU's 7th Framework Programme research budget, its return through the funding of coordinated projects in which French teams are participating stands at around 12.5 to 13%, a shortfall of 600 million euros. Although the situation depends on the type of activity, French participation in clinical research appears to be smaller than that of its neighbours, with fewer responses to European calls for proposals.

While France has many assets, which include the assured funding of clinical research, structured thematic networks and the initiation of major national programmes, it suffers from the dilution of resources due to France's regional development policy, the lack of multidisciplinarity and the ignorance of both the medical and scientific community and the institutions to which they belong as to how Horizon 2020 actually works.

We propose three types of strategy to encourage proposals for coordinated clinical research projects or projects involving French teams, and to help in the drawing up of applications:

- Broaden the vision of our children, students and colleagues, helping them to adapt to the globalisation of knowledge throughout their educational and professional lives.
- Recognise the value of European actions to influence the European landscape and change mentalities.
- Help and support project initiators by pooling skills within a limited number of expert centres designed to assist them in their funding application.

Abbreviations: see end of article.

† Articles, analyzes and proposals from Giens workshops are those of the authors and do not prejudice the position of their parent organization.

1. Review and background

This round table, designed like all round tables to foster discussion, was initiated following the observation that in relation to its scientific and medical potential in European Union (EU) health research initiatives, France's position is modest. Is this due to an unadventurous, wait-and-see attitude, or unsuccessful applications? An analysis of possible explanations should pave the way for recommendations that will improve its record.

With a budget of 79 billion euros, Horizon 2020-the EU's 8th Framework Programme (FP) for Research and Innovation, kicked off in January 2014-represents high stakes, especially in light of the funding shortages from which France, its researchers and the organisations to which they belong, are currently suffering.

1.1. Framework Programmes for Research and Innovation, the EU's main instrument in the research sector

The European Union first entered the field of scientific research 30 years ago.

These EU-funded FPs for research and innovation (R&I) award grants to European research participants following competitive calls for projects.

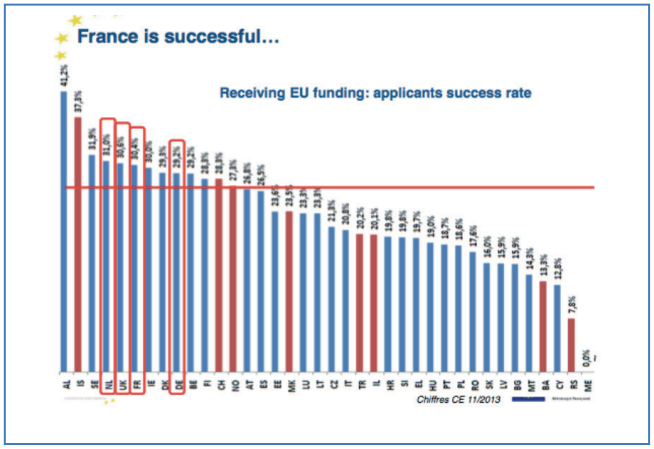
The original objectives were to pursue the acquisition of knowledge, spur medical progress and contribute to economic growth through job creation. To these, the Lisbon summit of 2 000 added the goals of reducing the fragmentation of efforts, isolation and the boundaries of national research systems.[1]

The first six FPs for R&I each covered four years. This period was increased to seven years from FP7 on (2007-2013). The associated budget has been increased each year: 17.5 billion euros for FP6 (2002-2006), 50.5 billion euros for FP7 (2007-2013) and 79 billion euros for Horizon 2020 (FP8).

1.2. Analysis of the French scientific community's position

There is a mismatch between the position and performance of the French scientific community.

From a global viewpoint, and no doubt rather simplistically, the situation may be resumed by comparing two figures. One is France's contribution to the European Union budget, which stands at 16.5 to 17%, and the other, its financial return through the funding of coordinated projects involving French teams, which stands at some 12.5 to 13%.[2] Without going so far as to say that France is funding research in the Netherlands or other higher-performing countries, these figures are challenging. For each euro invested, France "only gets back" 70 cents, representing a shortfall of some 600 million euros, which is the equivalent of the annual budget of the French National Research Agency (*Agence Nationale de la Recherche*, ANR).



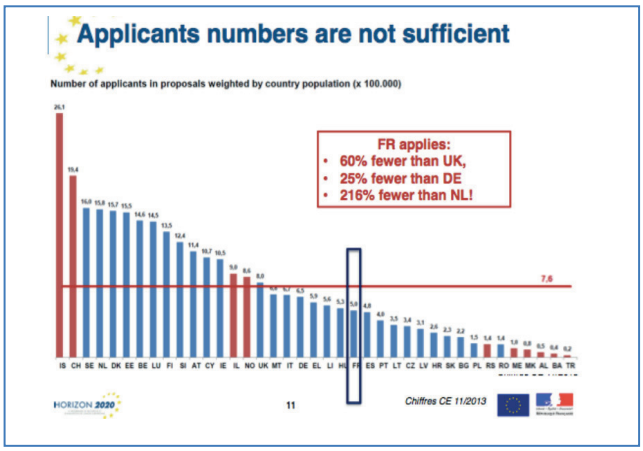


Fig. 1. Comparison of the number of French projects and their success rate in FP7 (European Commission statistics/DG RTD – November 2013). With courtesy Guillaume Fusaï (*Ministère de l'Eduction Nationale, de l'Enseignement Supérieur et de la Recherche*).

The first question raised in this situation is obviously "why?" Is it the result of a lack of determination by the French scientific community leading to few project applications or, more dramatically, the poor quality of proposed projects? Indicators reassuringly place France in the first case rather than the second.

If we look at the success rate of project applications, France is sixth out of 31 member states or associated partners, a more than honourable position behind the Netherlands and just behind Great Britain but in front of Germany. If we look this time at the number of projects proposed in relation to the population, France is near the bottom, 23rd out of 31 (figure 1).

Further analysis to distinguish performance by major sector of activity and research gives food for thought. It is not surprising that French performance is excellent in terms of return on investment in leading industries ("return" of 26% of the total budget in the space sector; 24% in aeronautics and 23% in the nuclear industry). At the