



*CHRONICLE OF THREE
YEARS OF STRUGGLE OF
THE SOCIALIST DEPUTIES*

ANOTHER BILL FROM
RESEARCH PROGRAMMING

BY VALÉRIE RABAULT, ON 21 .09 .2020
AND BORIS VALLAUD

CHRONICLE OF THREE YEARS OF STRUGGLE OF THE SOCIALIST DEPUTIES:

ANOTHER RESEARCH PROGRAMMING BILL

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Valérie RABAULT on September 21, 2020 in session

Madam Minister, your bill on multi-year research programming was eagerly awaited for at least two reasons: first, because it is only the third since 1982, which is to your credit; and above all, because it aims to make up the ground lost by France over the last fifteen years in terms of investment in research, especially compared to other major world economic powers.

However, this bill has caused great disappointment, in the unanimous opinion of the research community, with the possible exception of the Collège de France, whose representatives explained this morning that this text was better than nothing. All the others - and I am weighing my words carefully - indicated that they were very disappointed.

Because this disappointment is great, because we love research and because we believe that "the Republic needs scientists," as Pierre Mendès France reminded us on June 3, 1953, because we believe that research should be a strategic lever at the highest level of government, and because the level of resources allocated to research in France is no longer acceptable, we have decided, with my group, to completely review the budgetary trajectory that you are presenting to us, by providing a counter-budget with figures line by line.

We have quantified this fiscal trajectory assuming, which you haven't, that it will reach 1 percent of GDP in 2027. Moreover, this objective was not included in your bill: it took an amendment by the rapporteur to add it. Most importantly, your budgetary trajectory is not based on this objective.

You can redo the calculations as you wish, or even ask our colleague Cédric Villani to help you. You won't find that your budget trajectory reaches 1% of GDP, neither in 2027 nor in 2030.

Of course, we agree on the observation.

France spends less on research than other rich countries and lags even further behind when it comes to publicly funded research. In 2007, our country was on an equal footing with Germany. Since then, the budget that Germany allocates to public research has reached almost 1% of GDP, which is not the case here. Moreover, I agree that you are not responsible for this situation, since it has been going on since 2007.

Secondly, France has fewer researchers than Germany: for every 100,000 inhabitants, public research employs 173 researchers in France compared to 207 in Germany.

Finally, our country pays researchers less than its counterparts: 35% less at the beginning of their careers and 15% less at the end of their careers.

Yes, the disappointment with your programming bill is great, because of the budget trajectory you are proposing. I repeat: it was not until the amendment tabled in committee by the rapporteur Pierre-Alain Raphan that the 1% of GDP objective was mentioned in the text, which does not mean that it serves as a pivot for the construction of your budgetary trajectory.

So we've redone the calculations according to a budget trajectory aiming at 1% of GDP in 2027, which leads us to obtain, for 2027, 9.2 billion euros more than in the budget law for 2020, when you propose, for 2027, 3.3 billion euros more than in the budget law for 2020. These figures are on page 28 of the impact study you signed, but perhaps you forgot them.

As a result of this objective, the additional annual investment needed to reach 1% of GDP in 2027 is 1.315 billion euros more per year, when you left with around 500 million to 600 million euros. This means that to reach 1% of GDP in 2027, you need 6 billion euros.

You can review the numbers. We will send you all the tables. You'll see that they're on track, unlike your budget trajectory, which is not based on a target of 1% of GDP in 2027 or even 2030.

An equally great disappointment is the proposals you make to improve the situation of researchers.

Let's start with hiring. You plan to create 5,200 positions by 2030, which would raise the number of public researchers to 182 per 100,000 people. Again, I repeat, Germany has 207 public researchers per 100,000 inhabitants. At the same time, the Government is planning to increase the number of contract staff by 15,000 over the period, the distribution of which we do not know.

To hide the inadequacy of these hirings, you inventoried three statutory avenues: the junior professor's chair; the doctoral contract under private law; and the permanent contract for scientific missions. All three have one thing in common: no minimum salary is defined; no minimum duration is set, except for the junior professorship; and finally, you do not make any specific provisions, all of which are referred to a decree.

You justify these creations by the fact that it is necessary to make the job of researcher attractive and to facilitate the bridges with the private sector. Seriously, do you know many areas in France where, when a permanent position is open, it attracts between seven and twenty applications for recruitment after eight years of higher education for 1,700 euros net per month? This situation is probably unique in the world. Yes, young people want to join public laboratories because they love research and France is still attractive, despite the notoriously low salaries.

Therefore, your three contract proposals are a false answer to a real problem. Worse, this alleged answer will make the problem worse.

You don't say anything about the working conditions of researchers and the evolution of the real time they spend on research. In public institutions, half of the researchers are teacher-researchers who have to provide 192 hours of teaching per year, to which must be added the preparation of courses and the increasing administrative tasks associated with them, which have become more and more time-consuming over the years. Faced with this situation, you are proposing nothing. For our part, we suggest freeing up research time by reducing teaching time in front of students by 25% and compensating for this reduction by hiring 3,000 teacher-researchers per year from 2021 to 2025, at an additional annual cost of 170 million euros.

Finally, your proposals for upgrading are only a commitment for 2021 and, thereafter, intentions that are binding only on programmers. The only truth we will see is that of the finance law. However, you did not consider it useful to write a real financial projection. On this point, we make another proposal: an average revaluation of 1,600 euros per year for the period 2021-2025, at an additional annual cost of 200 million euros.

Concerning the quarter of the 73,500 doctoral students who do not benefit from decent funding for their thesis, you do not propose anything concrete. You state an intention - to increase by 20% the number of doctorates funded by the Ministry of Research - without making any provision for current doctoral students, who are deprived of decent funding conditions. We propose to provide 1.5 SMIC per month for each one, for a budgetary cost of 150 million euros to make up for the shortfall.

Nor do you say anything about those who, among the 130,000 temporary workers who teach in higher education, find themselves in a precarious situation.

You also remain silent on the necessary gateways for the doctors. Every year, 14,000 students obtain their PhDs; only half of them can be recruited in public institutions.

Finally, in a more conjunctural way, you make no real commitment to allow thesis students affected by the coronavirus crisis to benefit from an additional year.

As regards the conditions for exercising the profession of researcher, you are taking a first step, which I welcome, with the start-up grant. The general opinion is that it should be renewed for two more years, which would represent three times 10,000 euros, instead of the 10,000 euros you are proposing.

Finally, the programming bill does not mention any investment for premises. Joël Giraud, then General Reporter, and since then Secretary of State for Rural Affairs, had alerted you to this in his report on the 2018 settlement law.

Following in his footsteps, I propose an additional annual investment of 150 million euros for the period, on top of the 777 million already granted.

If we add them all together, all our proposals reach the amount of 975 million. As I said, we are starting from a budget base of an additional \$1.315 billion per year, which leaves an average of \$340 million for projects. That's my point.

You do not explain where you want to take the research. You are introducing a ten-year programming law, but it is less precise than the objectives set out in the 2013 law, which was not a programming law.

But to address research before us parliamentarians, as policy makers, is to offer us an opportunity to confront progress, and hopefully in an enthusiastic way.

To give an example, on September 14, 2015, the experiment showed the existence of gravitational waves. France, Italy and the United States were at the origin of this major breakthrough. To discover gravitational waves is to give an illustration to the theory developed by Einstein in 1905 on general relativity, which states that gravitation is basically a bend between space and time. A philosophical dissertation could be drawn from this, but let us summarize by saying that, if two identical clocks were compared, the one that would have stayed in one gravitational field would lag behind the other. This is one of the examples of the extraordinary, almost magical advances made in the scientific field, resulting from programs that, for many, were decided before 2010 and financed in the past years. We will be accountable to future generations for what we decide or do not decide today.

To pass a programming law on research, it is necessary to project oneself into an unknown universe, which by definition is vertiginous. But vertigo can still be approached seriously and rigorously. To do this, I repeat, it is necessary at the very least to establish a budgetary framework based on serious hypotheses, which you have not done.

As the mathematician Henri Poincaré, dear to our colleague Cédric Villani, said: "Mathematical discoveries, whether large or small, are never born of spontaneous generation. This does not exist in research, where only the efforts of researchers, their work, their enthusiasm and their will count. For this enthusiasm to radiate throughout the country, it must be carried to the highest levels of government. Legend has it that Barack Obama received the Chief Science Advisor of the United States every week to discuss major research issues. In France, the Parliamentary Office for the Evaluation of Scientific and Technological Choices, where some of you sit, whom I salute, deplored, in its 2017 report, the low level of commitment at the highest level of the State, regardless of the majority in power.

This is why we are advocating for a change of culture at the highest level of government. We propose the creation of a Strategic Research Council, similar to the Council for Defense and National Security; it would be chaired by the President of the Republic and would meet at least twice a year to discuss major trade-offs.

These arbitrations, Madam Minister, you refused to make them in your research programming bill. All the actors we met with confirmed it to us: "She doesn't want to make a decision. "In my eyes, this is a weakness; worse, it is a breach of the law.

Indeed, article 15 of the law of July 22, 2013 provides for the national research strategy to be reviewed every five years. This means that the strategy should have been reviewed, at the latest, in 2018, which was not the case; it should, at the very least, have been reviewed on the occasion of this programming bill. The national strategy for research included ten challenges, which are still relevant today: sober resource management and adaptation to climate change; clean and secure energy; industrial renewal; food security, etc.

The last point I wish to make to you concerns the protection of our research. Every invention escapes its inventor, one day or another, if only because it constitutes progress for humanity and therefore has the vocation to benefit all humans. For all that, we are not forbidden to value what we do. I will cite the case of photovoltaic cells, which exist largely thanks to research conducted in France on silicon. However, no industrial sector allows us to manufacture photovoltaic cells on a large scale here in France, and we buy them in China: this means that we have paid for the Chinese research. This type of pitfall must be avoided. For this reason, we propose that a

Once a year, the Strategic Research Council, chaired by the President of the Republic, defines the research advances for which an industrial extension is necessary, in order to prevent others from seizing them. There is a very concrete case in point: the hydrogen industry.

As you will have understood, the proposals made in the Research Programming Bill do not, in our view, answer the questions that researchers are asking you. Above all, the trajectory that you present is, I repeat, a budgetary lie, because spending does not reach 1% of GDP, not in 2027, not in 2028, not in 2030 - unless, in your calculations, you are counting on a collapse of GDP because of the health crisis, and I hope that this is not the case.

We will provide you with a turnkey trajectory based on the objective of 1% of GDP in 2027. Take advantage of it!