

Published in [EuroScientist](#) via [SciencePOD](#)



Crucial timing for Spanish research



A brief journey through recent history Spanish research

Dear Editor,

I have read with great interest your recent article on the creation of a [new Spanish State Research Agency](#). Unfortunately, it would take more than just a new agency to get Spanish science back on track.

Let me give you some background on how the Spanish research sector has evolved in the past few years. In the spring of 2005, the Government—perhaps motivated by the vision of a stormy future or simply by coincidence—launched an [unprecedented initiative](#) called [Ingenio-2010](#). Recognising that Spanish scientific research had been neglected, the program was designed to develop a number of proposed fixes to treat the [chronic damage](#) inflicted previously.

The initiative was launched at a time where forecasts anticipated a storm in the Spanish economy. Yet, it also offered a solution to overcome it: "...with a future full of challenges the investment in Research and Development (R&D) is the key for maintaining and increasing growth, productivity and the well-being of our society."

Following the advice of the European Council and the Lisbon Strategy, the Spanish Government recognised the [priority of achieving](#) an investment in R&D similar to the rest of the European Union—at the level of 3% of the gross domestic product (GDP)—and designed new and ambitious programs such as the [Consolider-Ingenio](#), mirrored in successful international programs. It encouraged networking between talented groups by funding non-orientated and revolutionary ideas in all fields of knowledge.

Crossing the desert

Unfortunately, Ingenio-2010 was simply a mirage in the Spanish desert. And by the winter of 2016 exactly the opposite had happened. Indeed, the last seven years have been exceptionally damaging for Spanish research—and its researchers. Although justified by our politicians under the Spanish economic crisis, the [crossroads at which Spanish science stands today is](#) today is the result of [long and premeditated negligence](#) of our Governments.

Many factors have influenced the current poor health of our science. However, four examples are sufficient to illustrate how we arrived to our precarious situation.

First, Spain has a ridiculous public investment in R&D which is [lower today than in 2006](#) (an official 1.2% of the GDP but [an actual 0.5%](#)). This makes the situation in Spain far removed to that of [neighbouring countries in Europe](#); with 2.02% average in the European Union or 3% in Germany, Sweden or Finland.

Second, the country's research sector has been affected by the [sudden termination](#) of successful alternative programs such as [Consolider-Ingenio](#).

Third, the now scarce amount of funding available is paid late to our labs. In addition, the grant process is accompanied by [continuous delays](#) in official calls and delays in annual disbursements.

Fourth, our scientific capabilities have been hugely affected by an astonishing and antagonistic bureaucracy from the relevant Ministry. Instead of collaborating with the scientific community to cross this dire strait, it is submitting scientists and institutes to [constant audits](#). For example, forcing

us--under ridiculous pretexts--to reimburse money invested in the lab ten years ago. Or, the ministry has also introduced new criteria rejecting [outstanding research](#) projects simply [on the basis](#) of proposal's length or the font of our applications.

The outcome of these [harmful policies led to the untimely closure](#) of many promising research programs, whole labs and Institutes and to drastically reduce the size of our working teams.

Future evolution

For many Spanish scientists, the only way out to the crisis [was to leave](#) ; between 2010 and 2014 [Spain lost](#) 11.500 researchers. The most disquieting looking at the future is that our young talent is not being integrated into the system. For example, [the average age of the researchers](#) working in our public Council of Scientific Research (CSIC) is 53 years old.

In our lab, for instance, we have just barely been able to deal with the situation. We have entered collaborations with our foreign colleagues/friends. We also made significant personal and professional sacrifices. Among others, these include the reduction of our salaries, accepting highly precarious employment and juggling with economic restrictions. For example, we have extended projects initially funded for three years up to five years. And are working today with the same budget as ten years ago.

All these factors combine to decrease the scientific risk we can afford to take. As a result, breakthroughs are less likely to happen while the quality of our research has been affected. What is more our scholarly output has been affected. With such impediments, it is hard to compete effectively in highly competitive international calls, limiting our opportunities further.

Hope

However, like a Phoenix, Spanish scientists continue to fight against adversity with talent. No better proof is that Spain ranks in the 10th position worldwide in terms of scientific production, according to the [Scimago Journal & Country Rank](#). The resilience of our scientists explains why Spanish groups are still [receiving awards](#) from [prestigious international programs](#).

Paradoxically, our success has a [dual effect](#). Our infamous political class boasts about the Spanish R&D, claiming [political credit](#) for our talent. They appear unaware of the need to reinforce our potential by working towards a serious compromise to fund and safeguard the future of Spanish scientific research.

Nevertheless, our talent and continued sacrifice will not be enough to replace tips and pipettes. And the damage caused by seven years in the desert will not be long in manifesting more profoundly. It is therefore time for our new Government to reach a compromise with the aim of bringing qualitative and quantitative changes to support science. If that does not happen, it will soon be too late.

Finally, we cannot end a journey through the Spanish news without a brief comment about the positioning of some members of the scientific community in front of such a depressing situation. And especially in response to the widespread lack of hope that a solution could be just over the horizon. After reading these lines, it should be clear why a [significant group of scientists](#) working in Catalonia

would like to sever all connections and, eventually [aim for independence](#) from such a decrepit system. The question is: could things be worse in this uncertain but brand new scenario? The answer is another story. But it seems that many scientists would take that risk.

Albert Pol

Albert is [ICREA research professor](#) at IDIBAPS (Institut d'Investigacions Biomèdiques August Pi i Sunyer) and assistant professor at the University of Barcelona, Spain. He is involved in a movement to re-establish the [Consolider Programme](#), which you can [join here](#).

Photo credit: [Olearys/ Flickr](#) (CC BY 2.0)