WORLD VIEW A personal take



Spanish changes are scientific suicide

If research continues to be sidelined, Spain will be left with little domestic expertise, warns **Amaya Moro-Martín**.

pain no longer has a ministry of science. In the last days of 2011, its new government transferred national science policy to the Ministry of Economy and Competitiveness, a duty for which this ministry seems most unsuited. Science was an unwelcome addition that absorbed more than half of the €1,083-million (US\$1,438-million) budget cut imposed on the ministry. This sends an alarming signal of the sacrifices that science may face when the government releases its budget for 2012 next month.

This is the first time that neither 'science' nor 'research' have featured in the name of any top Spanish government department. It is not just a symbolic shift: it continues our country's trend of deliberately undermining and playing down the importance of science.

The official line is clear: science is not a priority in Spain. Of course,

we are immersed in an economic crisis and austerity measures are needed. However, the government's irrational and draconian actions will cause long-term damage to the scientific infrastructure and send contradictory messages to other countries and investors. Although its rhetoric promises a shift to a knowledge-based economy, every step it takes is in the opposite direction. The results will be a borrowed-knowledge economy with little domestic know-how.

The problems did not start with the new government: the previous administration attempted to pass a Kafkaesque by-law for public universities that would have created a meritevaluation system that diminished the weight assigned to research and technology transfer. The by-law stated that trade unions would negotiate the criteria for faculty promotion, making aca-

demic careers "more predictable and more egalitarian". It would have been the death of meritocracy. The same by-law would also have ballooned bureaucracy to such a level that it would have threatened to swamp any university administration.

The previous government also opposed attempts to create a genuine tenure-track system for researchers in universities and national laboratories, on the grounds that tenure track is unconstitutional because access to civil service should be "egalitarian" so tenured jobs should not be targeted to tenure-track researchers. This is a consequence of the narrow-minded thought that all researchers in the public sector should be civil servants, but civil service is unsuited to research activities.

Spain likes to boast that it has an equivalent to tenure track: the Ramón y Cajal programme. Launched in 2001, this is the only

nationwide programme that has managed to attract and retain highly qualified researchers from Spain and abroad. However, drastic cuts in hiring over the past three years and a hiring freeze announced this year will kill this first

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attempt at a tenure-track programme. The prospects are so grim that despite being eager to return to Spain, some of my Spanish colleagues in the United States are rejecting Ramón y Cajal positions.

The hiring freeze is suicidal. Researchers who retire will no longer be replaced. Unlike many of its neighbours, Spain has a very limited science and technology industry in which to absorb highly qualified workers, so scientists aged 20–40 years will have no choice but to leave if they want to further their career. The country will therefore face a multigenerational brain drain, with corresponding losses in innovation, inspiration and credibility. The damage from this decision will take decades to reverse.

The new government is now effectively trampling on the best hope that Spanish researchers had for the future. Legislation in the pipeline

could have improved the situation, but the government has, abruptly and without explanation, closed the two political science commissions — one in the Senate and one in the Congress — that would have been responsible for steering through this legislation.

The legislation includes moves to allow universities and research centres to be funded privately, to develop a new science and technology strategy and to create a proper national research agency with a multi-year budget. We urgently need such a system in Spain, where severe and unpredictable fluctuations in year-to-year funding make medium- to long-term planning impossible. The strategy is crucial if Spain is to coordinate its increasingly anarchic 18 sets of science policies—laid out simultaneously by the 17 regional governments and the central government— and to

introduce a smarter, top-down, approach to tackling national problems.

Spain must bring its science and technology investment (currently 1.39% of gross domestic product) in line with European standards (2%) and closer to the 3% goal set by the European Council Lisbon Strategy for 2010. It also needs a science council, similar to the German *Wissenschaftsrat*, constituted mainly of scientists who have been elected by the scientific community to take the lead in delivering the national science and technology strategy.

Spain's situation is summed up by a poster for a recent Hollywood blockbuster: "No plan. No backup. No choice. Mission: Impossible. Ghost Protocol." Spanish science cannot afford ghost protocols. Without the proposed strategy there is no plan, and without a well-funded and non-political national research funding agency, there is no backup. The results leave research in Spain with a mission impossible.

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