

Spring-cleaning in France

The French scientific research system is ripe for reform.

A year ago, on 6 May, France elected President Nicolas Sarkozy on a 'ticket of change' that included making research a priority and shaking up the science base. His government, to its credit, has made a fair start on both. Science and higher education, long relegated to puny junior ministries, have been given a full-ranking ministry, as have ecology and sustainable development — which also puts neglected issues such as climate change and energy high on the agenda. The state has upped science funding and has begun to modernize the way research is administered.

Sarkozy's government used his post-election momentum to swiftly push through a law shifting power away from the government research organizations, such as the CNRS and INSERM, to the universities. To an outsider, the law might seem quaint: it simply gives the state-run universities greater independence to manage their own budgets, to fix their own science strategies and to hire researchers on contract, with salaries negotiated on merit.

But this is France, where a naive interpretation of *égalité* has made taboo the competitive universities of Anglo-Saxon countries, and where most researchers are civil servants on identical pay scales. Attempting to change the status quo has been a recipe for street protests, and often political downfall. Students did protest against the new law, but the movement fizzled out after Valérie Pécresse, the country's science minister, faced it down while making only minor concessions. Forty years after the protests of May '68, the French have not lost their taste for revolt, but they seem to be slowly accepting that university reform is inevitable and overdue.

The universities will also be given a greater say in the running of the 1,300 laboratories they administer jointly with the research agencies. And thanks to the ramping up of the National Research Agency (ANR), created in 2005 to award grants on the basis of competitive proposals, university labs and young researchers are also less tied to funding by the agencies, which make rolling grants directly to labs.

Nonetheless, this change in status will take years to bear fruit, as most French universities are in a deplorable state. The government has funded the reforms with an extra €5 billion (US\$8 billion), but

the cost of redressing past neglect will stymie any immediate expansion of research and the recruitment of top talent.

This means that modernization of the research agencies remains imperative. A welcome restructuring of France's fragmented biomedical research has begun with a modest reform of INSERM, the national biomedical research agency, announced in March. The agency has been transformed into eight thematic institutes, which will regroup and concentrate research now spread across the CNRS and other agencies. A similar modernization of the CNRS, expected in June, is likely to transform it into a set of distinct institutes, each managing its own labs and long-term strategy.

It remains far from clear how the revamped research agencies will cohabit with the newly strengthened universities. Scientists must be vigilant to see that the right balance is struck among the agencies, the universities and the ANR. The research agencies have many merits. Rolling lab grants provide stability and opportunities for risk-taking that are rare elsewhere — even if too few researchers are taking advantage of them. And critics rightly complain that the young ANR is too skewed towards imposed top-down state 'strategic' themes to the detriment of investigator-driven basic research.

The broad inter-agency reforms also risk distracting from more pressing and targeted ones. The reform of INSERM does little to tackle the root problem of French biomedical research, which is that fixed pay scales and slow recruitment procedures make it almost impossible for France to compete in the highly competitive international job market. The softly-softly approach of introducing more flexible recruitment practices via the back door of the universities is not enough here.

So far, Pécresse has played a sensible opening game for the government, slowly moving her pawns forward to avoid confrontation while making reform a *fait accompli*. She may succeed where so many have failed. But sooner or later she needs to push forward a queen. ■

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The gathering storm rages on

Two years on, a National Academies report on US competitiveness struggles to make an impact.

It is not often that a US senator talks about science, and even more rarely that she claims to bear good news. But that's the message Kay Bailey Hutchison, a Republican senator from Texas, tried to deliver last week to a restless crowd in a hotel ballroom in Washington DC.

The occasion was a look-back at a major 2005 report from the US National Academies on the state of science and engineering in America. Called *Rising Above the Gathering Storm*, it warned that the United States could soon lose its worldwide lead to other nations that have been investing aggressively in science and engineering education and research. Hutchison called the report a "wake-up call. Even in Congress, we got it".

But did they? Last August, Congress did respond by passing the America COMPETES Act, which vowed to double the physical sciences research budgets at such key agencies as the National Science Foundation, the Department of Energy's Office of Science and the National Institute of Standards and Technology. But in the United