

Closer to home: Science and Innovation in France ... and Europe

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Swapping the Science and Innovation role in Boston for that in Paris has certainly brought home a few differences. There's the language of course – although even here English is increasingly the language of science. But also the culture of science and innovation: from an environment where the State played a relatively minor role in the innovation engine and where strategy was emergent at best, to one where the State is firmly in the driving seat and strategy abounds. And there's not the same stream of UK science visitors keen to learn from the world's number one innovation hub. But perhaps our nearest neighbour should be better known: there is certainly plenty going on here.

France is a major force in European research, spending around 2.2% of its GDP, some €35 billion, of which 46% comes from the State. But despite the high volume there are concerns over the efficiency and effectiveness of the research output. Publications and citations are lower overall than the UK, yet the very best research here is outstanding, with a higher share than the UK of highly cited papers in the most prestigious journals. Patent numbers are higher too but exploitation of that knowledge and links between public research and industry are below international benchmarks.

The French Government has been making serious efforts to overhaul the public research sector. The Research Bill of 2006 introduced reforms aimed at increasing prioritisation and strategy, more systematic evaluation of research, encouraging co-ordination between research organisations, making scientific careers more

attractive, increasing innovation and technology transfer and increasing integration into the European Research Area. In an effort to improve the innovation performance of industry, the State funded the creation of competitiveness clusters – associations of companies, research centres and educational institutions, working in partnership under a common development strategy. Sixty-six of these poles de compétitivité were created, 6 of which are regarded as world-class with another 10 close behind. These are well funded with preferred access to public research calls. Many are creating real momentum regionally and developing new international links.

Last month of course saw the election of Nicolas Sarkozy as president. Research and higher education reform featured strongly in his campaign. An historic effort is needed, he said, to avoid losing the battle for intelligence. He promised to increase higher education spending by €5 billion (50%) in five years, and strengthen university governance, offering them real autonomy and placing them at the centre of research. R&D spending is to be increased by 40% (€15 billion, 4 billion of which will come out of the public purse), aimed at reaching 3% of GDP by 2012. The new Government is moving swiftly. Valérie Pécresse, appointed to a new Cabinet-level position as Minister for research and higher education, has begun consultation on a bill on university autonomy scheduled for debate in an extraordinary legislative session this July.

In the Paris Embassy, I am delighted to have taken over a team that has produced a string of solid outcomes in

terms of increased bilateral co-operation. As our forthcoming annual report will show, my colleagues in the rest of the S&I European Network have an excellent story to tell too. But we are facing some strategic challenges that mean we need to look continually for ways to increase the value we add. There is the familiar competition for resources, including strong demands from our own S&I colleagues in the rapidly developing economies of the world. But the important new challenge is that of getting the best value for the UK from a hugely increased EU Framework Programme 7 (FP7), now worth €50 billion over 7 years. UK academics have tended to do well in the FPs (they were involved in 47% of all multilateral FP6 contracts) but take-up by UK industry is poor. There is a UK cross-departmental effort to turn this around. Our network has been specifically asked by GSIF (the cross-departmental committee responsible for international science and innovation issues) to focus on helping the UK achieve its goals in FP7.

To bring about these new multilateral collaborations we will need to work together across Europe, harnessing the resources we have in 11 countries (including Switzerland, Israel and Russia) and finding a way of reaching into those other countries with a significant science or innovation effort where there is currently no UK S&I resource.

Putting this new approach into practice will be a challenging task, but one that we are looking forward to tackling. The prize is worth it.