

bioFocus

Mark Downs reports on science and education policies



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- advising Government and influencing policy.
- advancing education and professional development.
- supporting our members.
- engaging and encouraging public interest in the life sciences.

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Have the science and education policies of 2011 set the right agenda for a vibrant science base?

By anyone's standards 2011 was a challenging policy year for education and research in the UK. Schools were challenged to change their governance structures to grow the academy cadre, whilst local business and community groups have been actively encouraged to help schools develop down this particular ideological pathway, or even to set up brand new "Free Schools". Yet, the schools policy debate has largely been about the National Curriculum review in England and Wales and "Curriculum for Excellence" in Scotland.

The Society of Biology, along with many sister organizations, has placed considerable importance on trying to help the Department for Education improve the current Programme of Study for science — all well and good. But, the elephant in the room is Government's current policy allowing academies and free schools to opt out of the national curriculum. With a target of 90% of schools going down these semi-independent routes, all the current work may be for little return. All this really does matter. Whilst some schools may specialize in science, and most will offer some science, there will be pressures for a wider curriculum and lower costs in free schools and academies and single or double science options may well become the norm. That would be a disaster. Biology, chemistry and physics backed by solid maths are all needed for an ever integrated approach to university level science and, ultimately, for the development of sufficient and appropriately skilled, biologists to underpin services, policy, education, manufacturing and research.

To add to the confusion the university landscape is little better. The focus of science policy over the last year has inevitably been research funding. Whilst it is undoubtedly important that debate has masked the real concern — the fact that policymakers are still decoupling teaching and research in universities. The truth is that they go hand in hand. The new

student fee structure and research funding have to be considered together. Inevitably the potential impacts are greater for some universities than others but there are already signs that some are "re-balancing" their teaching portfolio to reduce costs. And, as we know, practical biology is never cheap. If these pressures are then coupled with a schools agenda that does not provide wide enough 16 to 18 science teaching across the country, the cost of teaching "remedial science" to raise standards on entry to university is surely another disincentive to offer fully experiential (practical) life science courses. It may be that the market solution does deliver what the UK needs but it is certainly accompanied by risk, and we will be trying hard to spot trends and consult our expert Member Organizations and Fellows to ensure policymakers are alerted to our concerns.

In many ways the life sciences have fared better than was feared with additional funding announcements made during the course of last year. The money is welcome but the Coalition's commitment to the life sciences is equally important. David Cameron described the life sciences as the "jewel in our crown" whilst Cabinet Office Minister Oliver Letwin said of the environment and the National Ecosystem Assessment process:

"...until now, nobody in Britain (and, for that matter, nobody else in the world) has attempted to draw on this treasure trove of detail to produce a coherent picture of what is happening to nature..."

"...all in all, this unseen, but brilliant and assiduous work should provide us with a basis for policies that will preserve our natural environment and its contribution to humanity's well-being for decades to come".

This made the commitment clear until in his Autumn Statement, George Osborne said: *"If we burden [British businesses] with endless social and environmental goals — however worthy in their own right — then not only will we not achieve those goals, but the businesses will fail, jobs will be lost, and our country will be poorer."*

"We will make sure that gold-plating of EU rules on things like habitats aren't placing ridiculous costs on British businesses."

The Chancellor's lack of recognition of the contribution of the environment to our social and economic well-being has to be addressed. As does the general ignorance of the vast array of activity that the definition encompasses including high and low technology employment and intellectual leadership. As SfAM members know all too well, knowledge of microbiology is critical within environmental science offering stable ecosystems for food supply, nitrogen rich soils and pollution control. Yet, how many within Westminster or Holyrood recognize that? Collectively we need to ensure that these issues are regularly part of the environmental debate.



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