

The Chemistry Landscape | Background Information

Investment in the chemical sciences is critical to the UK economy and wellbeing

We are in a challenging economic climate. Against a backdrop of squeezed budgets and funding cuts, the chemical science community needs to ensure that the UK can continue to provide excellent education and a secure, stable future for skills and industries.

We want to ensure that quality chemistry education is available to anyone with talent and ambition, creating real jobs for skilled people. We are looking to present the best opportunities for the chemical sciences and, within an uncertain economic climate, prevent the worst fears of the chemistry community from being realised.

This work is essential, not just for the chemistry community, but for the UK as a whole:

- The sector generated £258 billion in 2007, equivalent to 21% of UK GDP and supported six million jobs, accounting for at least 15% of the UK's exported goods and attracting significant inward investment.¹
- Laboratory infrastructure is a key R&D enabler but in 2011 capital funding for infrastructure was reduced by 50% leaving a gap to be filled by individual research institutions.²
- A recent report indicated that research and teaching in chemistry departments is not fully funded: in 2007/08, research activity resulted in an average deficit of 36.7% of income, while the teaching deficit was 9%. The average overall deficit for chemistry departments across the UK was 31.3%.³
- The proportion of national income spent on UK HEIs is 0.69%; significantly lower than Germany, the United States and equivalent to India, which spend 0.91%, 0.98% and 0.67% respectively.⁴ About 5 years ago several EU countries set a goal to achieve 3% GDP spend on R&D by 2010 to match that of US (2.8%) and Japan(3.3%). In 2010 R&D spend by UK remains significantly lower at 1.7%.⁵

Do we need to be selective as we can't fund everything? Where can we make substantial savings?

In 10 years, what expertise will be needed to reinforce the UK's position as a hub for global chemistry and innovation?

If we focus on current subthemes of chemistry research will this be at the expense of realising innovation potential of new technologies?

To begin this process, the RSC hosted a town hall meeting in London on the 29 June bringing together 75 participants from industry, universities, schools, government and funding agencies to address three themes:

- National science capability
- The skills pipeline
- The future business landscape

After the meeting, a steering group chaired by RSC President, Professor David Phillips OBE, brought together the key visions that were discussed.

These visions are being consulted using MyRSC, which provides an opportunity for the wider chemistry science community to comment that the proposed vision and guidelines are practical, appropriate and robust in the following areas:

- Higher Education and Research Capability
- Industry and University Collaborations
- Schools and Further Education
- Scientific Literacy

Whether your expertise is in education, whether you are a researcher, or involved in strategic decisions for your company or research institute, we need your input.

The RSC will use your feedback to produce the key outcomes and actions to influence governments, funders, industry, HEIs, schools and colleges. This will define a national chemistry strategy and strengthen links between the different sectors.

Join the Chemistry Landscape debate.

1. [The Economic Benefits of Chemistry Research to the UK](#), RSC, 2010.
2. [EPSRC interim arrangements for equipment funding](#), EPSRC, 2011.
3. [Follow-up study of the Finances of Chemistry and Physics Departments in UK Universities](#), RSC & IOP, 2010.
4. [Organisation for Economic Co-operation and Development \(OCED\) \(2010\): Education at a Glance 2010](#), table B2.4.
5. [2011 Global R&D Funding Forecast](#), 2010, Battelle.