

Things can only get better

The Bush administration has failed to engage with science and deliver on funding — that should change under the new President of the United States.

On 4 November 2008, the United States chooses its next president. This much talked-about election has engaged not only the people of the United States, but also a significant proportion of the wider world community. Interest at home and abroad is down to two reasons: dissatisfaction with the Bush administration (President Bush has consistently scored record low approval ratings over the past year); and the fact that many people believe that this election actually presents a real choice and a real possibility to influence the outcome. Post-election, the chances are that many things will get better — although, before they do, we might expect them to get worse.

For science, things can only get better. The Bush administration has been widely regarded as one of the worst in recent history in terms of its attitude towards science. Irrespective of who wins the current election, it is probably safe to say that the situation will most likely improve. Responses^{1,2} from the presidential candidates, Barack Obama and John McCain, to questions on their science policies have been heartening. Both have vowed to restore integrity to US science policy and in particular to strengthen the scientific advisory role in the White House. The prompt appointment of a science advisor, close to the presidential inner circle, is certainly desirable, but it is only one step towards ensuring that political decisions are based, where appropriate, on sound scientific foundations and that adequate advice is taken.

There hasn't actually been any lack of scientific advice, even in the present administration — it just wasn't always taken. Hundreds of reports are, in fact, available to the President each year, authored variously by scientific organizations, national academies, governmental organizations, advocacy groups and others³. But the route

from obtaining information, through its distillation into realistic options, to arriving where those options can be turned into actions, is a complicated one; it's neither a straight nor single-lane road, and has proved particularly treacherous in recent years owing to the politicization of federal advisory committees and their decision-making.

The need for science, and scientists, at the centre of political decision-making is as strong as ever, if not stronger.

Things look set to get better. During their election campaigns, both presidential candidates associated themselves with competent experts with solid scientific backgrounds — Obama with heavy-weight scientists, including Nobel laureates; McCain with leaders of governmental programmes and industrial corporations. It is no coincidence that in the 1960s, a time of US scientific and economic dominance, President Dwight Eisenhower was supported by a scientific advisory committee filled with prominent scientists and leaders of major universities, national academies, industrial research labs and weapons research programmes — as Leo Kadanoff remembers in his Commentary on page 822 of this issue⁴. Times have changed with increasing competition and globalization, but the need for science, and scientists, at the centre of political decision-making is as strong as ever, if not stronger.

The science and technology initiative *Investing in America's Future*⁵ from Obama and vice-presidential candidate Joe Biden is particularly impressive. It has much substance, and details strategies for

addressing issues of education, innovation and the integrity of science policy as well as the “grand challenges” of the twenty-first century. It is clear that some careful thought — and, moreover, some good advice — has gone into putting this document together (and it's no surprise, then, that its publication prompted more than 60 Nobel laureates to endorse the Obama–Biden ticket). Whoever is elected president, he would do well to adopt the core strategies of the Obama–Biden science initiative, they are not partisan in nature.

Right now, of course, the outlook for neither science nor society in general is rosy. The impact of the developing financial crisis cannot be disregarded. It is not a time to expect great increases in science funding. However, despite the tough decisions and tight budgets, it is imperative that the politicians of the United States — and, indeed, of all other countries — do not succumb to the temptation to underfund their scientific institutions. Scientific programmes, and their attendant expertise and infrastructure, might be easily sacrificed, but rebuilding them is disproportionately costly in time and money.

If there is a positive aspect to the recent financial havoc, it is that decision-makers across the globe united in an unprecedented coordinated response to the impending market meltdown. Such intergovernmental action is desirable — or rather, necessary — for tackling those “grand challenges” of the century, energy sourcing and climate change — challenges that only science can overcome.

References

1. www.sciencedebate2008.com
2. www.nature.com/uselection
3. Pielke, R. Jr *Nature* **450**, 347–348 (2007).
4. Kadanoff, L. P. *Nature Phys.* **4**, 822–824 (2008).
5. *Investing in America's Future: Barack Obama and Joe Biden's Plan for Science and Innovation*. www.barackobama.com/pdf/issues/FactSheetScience.pdf