

POLICY

UK science budget goes up

Celebrations as spending set to rise with inflation.

BY ELIZABETH GIBNEY

UK scientists' worst funding fears have not come to pass. The country's science budget will rise slightly in the coming years, Chancellor of the Exchequer George Osborne said in a much-anticipated government spending review.

Ahead of the review, scientists had braced for the possibility that spending would remain flat — as it has for the past five years — and continue to be whittled away by inflation, or even be cut. But speaking in the House of Commons on 25 November, Osborne announced that the £4.7-billion (US\$7.1-billion) science budget will now rise with inflation. This would amount to an extra £500 million for science annually by the end of the decade, according to the Treasury. Osborne also committed to increasing the £1.1-billion annual budget for science infrastructure to £1.2 billion a year by 2020–21.

Scientists' initial reaction was relief. "If the science budget is really protected in real terms, then that is good news," says Lee Cronin, a chemist at the University of Glasgow. Naomi Weir, acting director of the Campaign for Science and Engineering in London, said in a statement: "This announcement is great news for the UK."

However, Cronin and others noted that there is work to be done to reverse the damage caused by the flat budget. Although the increase in infrastructure spending will be helpful, Cronin adds that it needs to be "used to help replace essential equipment and provide the upgrades needed urgently, rather than just fund shiny new projects".

While acknowledging that the outcome could have been much worse, Jenny Rohn, who chairs the UK lobby group Science is Vital, highlighted that the science budget is smaller in real terms in 2015 than it was in 2010, owing to erosion by inflation.

The science budget will also have to cover a new Global Challenges research fund, aimed at addressing the problems faced by developing countries.

Osborne announced that the government would implement the recommendations of a review by geneticist Paul Nurse to create Research UK, a new umbrella body to oversee the seven research councils that distribute most of the science budget. ■



France's President François Hollande attends a national tribute to the victims of the Paris terrorist attacks.

TERRORISM

Why Europeans turn to jihad

Terrorism is tough to study, but researchers have gleaned insights from the current generation of Islamist extremists.

BY DECLAN BUTLER

In the wake of the terrorist attacks in Paris on 13 November that left 130 dead and more than 350 wounded, Alain Fuchs, president of the French National Centre for Scientific Research (CNRS), announced a fresh call for proposals for research on terrorism. Acknowledging that any effort with no immediate effect may seem "derisory", Fuchs said that science can help to open up avenues of analysis.

The Islamist terror group ISIS also carried out deadly attacks this year in Tunisia, Lebanon, Bangladesh and other countries, and downed a Russian airliner in the Sinai Peninsula. But as thousands of Europeans have left to join Islamist groups in conflict zones, and are at risk of returning home trained to carry out further attacks, the continent is on edge.

Terrorism researchers are trying to understand how young people in Europe become radicalized, by looking for clues in the life histories of those who have committed or planned terrorist acts in recent years, left the continent to join ISIS, or are suspected of wanting to become jihadists. A mixture of sociologists, political scientists, anthropologists

and psychologists, such researchers are drawing on information generated by police, judicial inquiries and the media, and, in some cases, on interviews. They also study factors at play in prisons and socially-deprived areas. Some of their insights are summarized here.

Religion is not the trigger. The rise of jihad in Europe has led to an assumption that there is a radicalization of Muslims more generally across the continent. Yet research suggests that most extremists are either people who returned suddenly to Islam or converts with no Islamic background, says Olivier Roy, who specializes in political Islam and the Middle East at Italy's European University Institute near Florence — and as many as one in four French jihadists is a convert. Roy summarized the latest research at a conference organized in Mainz on 18–19 November by the German Federal Criminal Police Office.

Violent extremism emerges first, with a religious justification tagged on after, adds Rik Coolsaet, head of political science at Ghent University in Belgium, who studies jihadis and foreign policy. He notes that two young British men who were jailed last year on terrorism offences after fighting in Syria had

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