

Rt. Hon. David Cameron MP  
Prime Minister  
10 Downing Street  
London  
SW1A 2AA

Dear Sir

### **Open letter on public science funding and nuclear weapons research**

As senior scientists and engineers, we are deeply concerned that while the government is threatening to cut public funding for research and development as a whole, it appears to be committed to maintaining high levels of military-related R&D. Of particular concern is the fact that world-class research into health and global environmental problems is under threat, while the government continues to fund the multi-billion pound research programme at the Atomic Weapons Establishment at Aldermaston.

Official statistics indicate that the total public spending on R&D is currently about £8 billion. Of this, the Ministry of Defence spends over £2 billion, more than 25% of the total. Much of this funding is used to support defence industry projects at a time when the industry is reaping bumper profits due to the massive increase in global military expenditure over the last decade. Our view is that current MoD R&D funding is not only disproportionate, it also includes expenditure on programmes which are of minimal benefit or counterproductive to the UK's security. For example, funds for the redevelopment of the Atomic Weapons Establishment's research facilities "to ensure that the existing warhead can be maintained for as long as necessary, and to enable the development of a successor warhead should one be required" (quoting from AWE's mission statement) will, we firmly believe, undermine progress towards multilateral nuclear disarmament.

Our view is that the UK's nuclear warheads should be taken off deployment and placed in secure land-based storage, and that the successor to the Trident system should be scrapped. The facilities at the AWE should be directed solely to monitoring and verification of arms control and disarmament agreements.

Overall, therefore, we believe that any cuts to public science spending should predominantly come from cuts to the MoD's R&D.

However, there are some areas of security-related R&D that should be expanded, including those which support monitoring of arms control agreements, non-violent conflict resolution, and tackling the roots of conflict and insecurity.

The over-arching threats to international security arise from rising fuel and resource costs, the impacts of climate change and other environmental problems, and the widening gap between rich and poor. Nuclear weapons are of no help in dealing with these problems – indeed, they are likely to make matters far worse. On

the other hand, a major shift of military R&D to civilian programmes of work will – if targeted carefully – help to tackle these international problems, improving the UK's security and also leading to greater job creation and a faster emergence from the current recession. As an example of the current imbalance in resources, we note that the current MoD R&D budget is more than 20 times larger than public funding for R&D on renewable energy.

We therefore urge ministers to shift their priorities so that science and technology can contribute to tackling the real threats to the UK's present and future security.

Sincerely

Sir Michael Atiyah OM FRS FRSE  
Professor (Honorary) of Mathematics, University of Edinburgh

Keith Barnham  
Professor (Emeritus) of Physics, Imperial College London

Roy Butterfield  
Professor (Emeritus) of Civil Engineering, University of Southampton

David Caplin  
Professor (Emeritus) of Physics, Imperial College London

Roland Clift CBE FEng FRSA  
Professor (Emeritus) of Environmental Technology, University of Surrey

Anne-Christine Davis  
Professor of Theoretical Physics, University of Cambridge

David Elliott  
Professor (Emeritus) of Technology Policy, The Open University

Christopher French FRSA  
Professor of Psychology, Goldsmiths, University of London

Leon Freris  
Professor (Visiting) of Renewable Energy Systems, Loughborough University

Jonathan Harwood  
Professor (Emeritus) of History of Science & Technology, University of Manchester

Alastair Hay OBE  
Professor of Environmental Toxicology, University of Leeds

Robert Hinde CBE FRS  
Professor (Emeritus) of Zoology, University of Cambridge

David Infield  
Professor of Renewable Energy Technologies, University of Strathclyde

Tim Jackson FRSA  
Professor of Sustainable Development, University of Surrey

Tom Kibble CBE FRS  
Professor (Emeritus) of Physics, Imperial College London

Sir Harold Kroto FRS  
Professor (Emeritus) of Chemistry, University of Sussex  
Professor of Chemistry, Florida State University  
Nobel Laureate in Chemistry (1996)

Matthew Leach FRSA  
Professor of Energy and Environmental Systems

Amyan Macfadyen  
Professor (Emeritus) of Ecology and Environmental Science, University of Ulster

Aubrey Manning OBE FRSE  
Professor (Emeritus) of Natural History, University of Edinburgh

Stephen Morse  
Professor of Systems Analysis for Sustainability

Eike Nagel  
Professor of Clinical Cardiovascular Imaging, King's College London

Jenny Nelson  
Professor of Physics, Imperial College London

John F Nye FRS  
Professor (Emeritus) of Physics, University of Bristol

Lawrence Paulson  
Professor of Computational Logic, University of Cambridge

Malcolm Povey  
Professor of Food Physics, University of Leeds

William Powrie  
Professor of Geotechnical Engineering

Norman Sheppard FRS  
Professor (Emeritus) of Chemistry, University of East Anglia

John Sloboda FBA  
Professor (Emeritus) of Psychology, Keele University

Peter F Smith  
Professor of Sustainable Energy, University of Nottingham

Tim Valentine  
Professor of Psychology, Goldsmiths, University of London

F J Vine FRS  
Professor (Emeritus) of Environmental Science, University of East Anglia

Alex Warleigh-Lack AcSS  
Professor of Politics and International Relations, Brunel University

David Webb FRSA  
Professor of Engineering, Leeds Metropolitan University

John Whitelegg FRSA  
Professor (Visiting) of Sustainable Transport, Liverpool John Moores University  
Professor (Visiting) of Sustainable Transport, York University

Tom Woolley  
Professor of Architecture, Queens University Belfast (retired)

Peter Young  
Professor (Emeritus) of Environmental Systems, Lancaster University

NB all signatories have signed in a personal capacity: where institutions are listed, this is for information only.

*This letter has been co-ordinated by Dr Stuart Parkinson, Executive Director, Scientists for Global Responsibility, who is the main correspondent for the letter at the address above.*