

SUMMARY  
REPORT

# ATOMS FOR PEACE?

THE ATOMIC WEAPONS  
ESTABLISHMENT AND  
UK UNIVERSITIES

*A collaborative report from*  
NUCLEAR INFORMATION SERVICE  
MEDACT

## ABOUT THIS REPORT

Nuclear Information Service and Medact have undertaken a two-year study to investigate research links between British universities and the Atomic Weapons Establishment (AWE), which is responsible for designing and manufacturing the UK's nuclear weapons. This report presents the executive summary and key findings from our study.

We found that approaching half of British universities have research links with AWE. Much of the work funded by AWE qualifies as 'blue skies' research which is not aimed at any particular application. However, some of the research funded by AWE may have 'dual use' potential - the capability to be used for both benign, peaceful purposes and military purposes contributing to the development of weapons of mass destruction.

Our study highlights the need for increased transparency over the nature of university research funded by AWE, and the need to strengthen the framework for considering the ethical implications of such work and its impact upon the research environment.

To help universities and researchers navigate ethical issues arising from participating in research work funded by AWE, Nuclear Information Service and Medact have prepared a set of model ethical guidelines which are presented in the main report for the study.

**To read the report in full please visit <http://tinyurl.com/awescience>**

## EXECUTIVE SUMMARY

This report examines the relationships the Atomic Weapons Establishment (AWE) has with the scientific, engineering, and technology community in British universities through its Technical Outreach programme of scientific research and collaboration. This is the first time to our knowledge that information on this topic has been collected and subjected to open scrutiny. The first part of the report documents AWE's involvement with universities and research institutes and the second part of the report explores the ethical issues associated with such collaboration and proposes a model ethical code of conduct intended to help in addressing such issues.

Nuclear Information Service and Medact undertook this study with input from Scientists for Global Responsibility between January 2012 and May 2013. Data was collected using requests for information under the Freedom of Information Act, a desk study of literature and information published on the internet, and interviews with key informants at universities and research institutes.

Our investigations indicated that university funding from the Ministry of Defence through AWE is widespread and its extent is not made openly available in the public domain. More than fifty UK universities receive funding from AWE. That is roughly

half the number of all UK universities. Limited information is publicly available on research funded by AWE in UK universities, and the Ministry of Defence did not provide detail (for instance, about publications or departments undertaking research) in response to requests about the universities that obtain funding from AWE. Five universities have agreed 'Strategic Alliances' with AWE (Bristol, Cambridge, Cranfield, Heriot-Watt and Imperial College) and receive long-term funding for wider research programmes. These partnerships enable both parties to collaborate in areas of science and engineering, including the use of the other party's facilities and the development of staff.

AWE's Technical Outreach programme supports unclassified research in the physics, materials science, high performance computing, modelling, and manufacturing disciplines. AWE also commissions academic involvement in the areas of nuclear detection techniques and nuclear forensics. The study provides case studies of examples where AWE has provided significant funding to universities to create a concentration of expertise to address areas of interest to AWE.

AWE provides support to UK universities through a variety of routes – direct financial payments for research, financial support for academic posts and studentships, and support for conferences and training. Money from AWE is often supplemented by support from other partners with overlapping interests. As well as universities, AWE also has academic partnerships with other research laboratories and professional institutions and works jointly with the Engineering and Physical Sciences Research Council and the Science and Technology Facilities Council.

AWE's academic collaboration helps increase AWE's reputability, allows AWE to draw on expertise from universities to support its work, provides a pool of potential recruits for staff posts at AWE, and enables AWE to maintain a broader scientific and technological awareness. The published aims of AWE's Technical Outreach programme clearly show that academic collaboration is directly intended to allow AWE to maintain its position as the UK's centre of expertise for military nuclear science.

Many aspects of AWE's scientific research work are conducted in sensitive and controversial areas, raising complex ethical and legal issues. There are international norms against the use and possession of weapons of mass destruction, recognised by a number of international legal treaties, including the nuclear Non-Proliferation Treaty and the Comprehensive Test-Ban Treaty, which require states holding nuclear weapons to take steps towards disarmament. It is important that relationships between AWE and universities recognise the aims of these treaties and, consequently, the ethical issues relating to work funded by AWE.

Applied research conducted at universities with support from AWE may well have dual use applications – the capability to be used for benign, peaceful purposes and / or military purposes contributing to the development of weapons of mass destruction. Valuable work conducted by universities on nuclear threat reduction and other areas of public benefit may be countered by research which may potentially undermine treaties aimed at controlling weapons of mass destruction.

Ethical guidelines or codes – which have increasingly become an important part of research and teaching activities in science, engineering, medicine and technology – are particularly important in guiding research in which security or military work is involved. The report presents a set of model guidelines which could be used to manage research work funded by AWE in UK universities and help in addressing the associated ethical issues.

Three general issues of potential concern are identified in relation to collaboration between AWE and universities:

- The need for increased transparency;
- The impact upon the research environment;
- A weak framework for considering ethical implications.

We recommend that AWE adopts a set of ethical guidelines (based on model guidelines which we propose) to manage relationships under its Technical Outreach programme, and require universities and institutes with which it collaborates to adopt code of conducts similar to the model guidelines. Ethical committees in universities and AWE itself should be more pro-active in advising all who receive funds from AWE that they have personal responsibility for the research which they undertake and the outcomes of their investigations. AWE should publish an annual report detailing the programmes it has funded in universities, and an independent audit of the impact of AWE funding on research in universities should be periodically undertaken to assess the results, effectiveness, and value for money resulting from such funding.

Nuclear Information Service is a not-for-profit, non-government information service which works to promote public awareness and foster debate on the risks and costs of the UK's military nuclear programme.

Medact is a global health charity tackling issues at the centre of international policy debates. Led by its health professional membership it undertakes education, research and advocacy on the health implications of conflict, development and environmental change.

Nuclear Information Service and Medact gratefully acknowledge the financial support of the Polden-Puckham Charitable Foundation in the preparation of this report.

**Nuclear Information Service**  
Ibex House  
85 Southampton Street  
Reading  
RG1 2QU

0118 327 7489  
[www.nuclearinfo.org](http://www.nuclearinfo.org)  
[office@nuclearinfo.org](mailto:office@nuclearinfo.org)

**Medact**  
The Grayston Centre  
28 Charles Square  
London  
N1 6HT

020 7324 4739  
[www.medact.org](http://www.medact.org)  
[info@medact.org](mailto:info@medact.org)