

Communications Group, Culham Centre for Fusion Energy, Culham Science Centre, Abingdon, Oxfordshire, UK OX14 3DB
Tel: 44 (0)1235 466232 Web: www.ccf.ac.uk

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Professor Steven Cowley appointed to Government Council for Science and Technology

Prime Minister David Cameron has appointed Professor Steven Cowley, CEO of the United Kingdom Atomic Energy Authority, as a member of the Council for Science and Technology.

The Council for Science and Technology is the UK Government's top-level advisory body on science and technology policy issues. It is made up of figures from senior levels in science and engineering fields from industry, business and academia, and reports directly to the Prime Minister.

Steven Cowley is a theoretical physicist who has been CEO of the UK Atomic Energy Authority since 2009. The Authority operates Culham Centre for Fusion Energy, near Oxford, which is developing nuclear fusion as a large-scale, low-carbon energy source for the future.

Before joining the Authority, Steven Cowley was a professor at the University of California Los Angeles and led the plasma physics group at Imperial College, London, where he remains a part-time professor. He has published over 140 papers and articles during his scientific career.

Professor Keith Burnett, a Board member of the United Kingdom Atomic Energy Authority, has also been appointed to the Council for Science and Technology.

Professor Steven Cowley said: *"The quality of the UK's science and technology is second to none and our future prosperity depends it. I am honoured to serve on a Council dedicated to enhancing UK science and technology."*

Announcing the appointment of new Council members, David Cameron said: *"We have some of the world's best scientists, leading technologies, cutting edge facilities and the most innovative hi-tech companies, and it is our determination that we do all that we can to ensure the UK remains one of the world leaders in this field. That is why I am delighted that I can announce the appointment of such a high calibre team, with such a broad range of experience, to the Council for Science and Technology."*

- Ends -

Photos and a biography of Professor Steve Cowley are attached. For more information please contact Nick Holloway, Media Manager at Culham Centre for Fusion Energy, on 01235 466232 / 07932 637470 or email nick.holloway@ccfe.ac.uk.

Notes to Editors

Council for Science and Technology

The Council's terms of reference are to advise the Prime Minister on the strategic policies and framework for:

- Sustaining and developing science, engineering and technology (SET) in the UK, and promoting international co-operation in SET.
- Fostering the practice and perception of science, engineering and technology as an integral part of the culture of the UK.
- Promoting excellence in SET education.
- Making more effective use of research and scientific advice in the development and delivery of policy and public services across Government .
- Promoting SET-based innovation in business and the public services to promote the sustainable development of the UK economy, the health and quality of life of UK citizens, and global sustainable development.

The Council works on cross-cutting issues of strategic importance, taking a medium to longer term approach. In developing its advice it takes into account the cultural, economic, environmental, ethical and social context of developments in SET.

For more information see <http://www.bis.gov.uk/cst>. The announcement of new Council members is at <http://www.number10.gov.uk/news/latest-news/2011/06/members-appointed-to-the-council-for-science-and-technology-2-65196>

Culham Centre for Fusion Energy

Culham Centre for Fusion Energy is home to the UK's fusion research programme, most notably the MAST (Mega Amp Spherical Tokamak) experiment. It also hosts the world's largest fusion facility, JET (Joint European Torus), which is operated for CCFE's European partners under the European Fusion Development Agreement.

The work is funded by the Engineering and Physical Sciences Research Council (EPSRC – www.epsrc.ac.uk) and by the European Union under the EURATOM treaty.

Further information is available at www.ccfec.ac.uk and www.jet.efda.org.

Fusion energy

Nuclear fusion, the process which powers the Sun and stars, has great potential as a future source of low carbon energy.

When light atomic nuclei fuse together to form heavier ones, a large amount of energy is released. To utilise fusion as an energy source, gas is heated to extreme temperatures, over 100 million degrees – hotter than the centre of the Sun. This creates a plasma in which fusion reactions take place. A commercial power station will use the energy produced by fusion reactions to generate electricity.

Fusion will have major advantages as an energy source:

- No atmospheric pollution: the fusion reaction produces helium, which is not a greenhouse gas;
- Abundant fuels, found in seawater and the Earth's crust;
- No long-lived radioactive waste;
- An inherently safe system: even the worst conceivable accident would not require evacuation of the surrounding population.

The fusion programme's objectives are to obtain and study conditions approaching those needed in a power plant, using the 'tokamak' machine concept – effectively a magnetic bottle which contains the hot plasma. The next step is ITER, an international tokamak experiment which should provide a full scientific demonstration of the feasibility of fusion in power plant-like conditions. ITER is now being constructed at Cadarache in the south of France. ITER (www.iter.org) will be followed by a demonstration fusion power station, DEMO, and electricity from fusion is expected to be on the grid by 2040.