United Kingdom Atomic Energy Authority

Annual Report and Accounts 2014/15

UK Atomic Energy Authority

HC 303

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Annual Report and Accounts 2014/15

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Contents

Front cover: Assembly of magnetic coils for the new MAST-Upgrade experiment

Chairman's Statement

Professor Roger Cashmore

Our main thrust at UKAEA is pursuing the science, technology and engineering necessary to establish nuclear fusion as a viable power source. To gain the experience and knowledge to deliver this we decided to move outside of our existing fusion base into related areas of research and innovation. In the past year this decision has delivered significant changes including two new facilities, and expansion of our existing work.

I was pleased to welcome the Minister of State for Universities, Science and Cities to the Culham Science Centre in January to formally mark the start of the construction phase of one of these facilities, RACE, a brand new robotics and remote handling centre. When fully operational by the end of 2015, the purpose-built RACE facility will conduct research and development into many applications of this technology across many areas. It will be a key centre for implementing the Government's Robotics and Autonomous Systems strategy, announced in July 2014, with funding provided as part of the Oxford City Deal, and which aims to equip the UK to compete in this emerging global industry. Construction on site is now well underway.

The second facility, the Materials Research Facility (MRF), is part of the National Nuclear User Facility – a £15 million Government-funded partnership to improve Britain's experimental equipment for nuclear research. Scientists from universities and industry will use state of the art equipment to examine tiny fragments of material. The data could be used to make nuclear power stations safer and help extend their operational life, as well as informing the design of the future generations of UK fission reactors. Materials analysis will also be a key activity for the design of prototype fusion power plants. The MRF Building is under construction, with work ongoing on the fit out and operations are expected to start in the Autumn of 2015.

These two projects are on top of the existing work going on at Culham. A major upgrade of the MAST fusion research facility is well underway, and although delayed compared to the original timetable, I have been impressed by the dedicated work of all involved, in what is a complete re-build and enhancement of the machine. Operations at JET, the world's largest fusion facility have continued at Culham. UKAEA carries out this work on behalf of the European Commission. Both of these projects will continue to provide information vital to the future of ITER, in addition to our expansion, in collaboration with UK industry, into the construction and operation of ITER.

Outside of basic research and development, UKAEA is also responsible for the development of the Culham Science Centre and Harwell Campus. These sites are a significant part of the science and innovation infrastructure in Oxfordshire, and UKAEA plays an active part in developing these further though the Oxfordshire Local Enterprise Partnership and Science Vale UK.

Our decision to move outside of the original fusion remit is fully supported by Government. It will enable the technological advances made in fusion to benefit other areas of UK research and development. We are training and developing staff who, through RACE and MRF for example, can use their skills in other areas and work with collaborators across academia and industry. A new apprentice training facility on site would be of immense benefit and is one of the future opportunities we are actively pursuing. There is also the aim of bringing significant work to the UK in the integrated design of the next steps in fission and fusion plants, for example in a future demonstration fusion reactor.

In 2014 UKAEA celebrated its 60th anniversary, having been formed in 1954, and I was pleased to welcome many previous directors and members of staff to a celebratory event in Oxford.

During the year, Eric Hollis retired after over 40 years of service with UKAEA. I would like to take this opportunity to thank him for everything that he did for the organisation in his many roles over this period, but particularly as CFO and for his advice and counsel during my tenure as Chairman. We welcomed Catherine Pridham as CFO at the beginning of 2014 to provide a suitable handover from Eric. During 2015 we will be looking for a new non-Executive Director to replace Steve McQuillan who reaches the end of his tenure.

In April 2015, Steve Cowley informed me that he had accepted the new role of President of Corpus Christi College in Oxford, to start in October 2016 at the end of his present term as CEO of UKAEA. This is a prestigious post for which Steve will be ideally suited, but it will be a great loss for UKAEA. I will be working with the Board, Executive team and BIS during the next year to ensure we find a suitable replacement for Steve, who can carry forward our vision for the UKAEA.

I look forward to working with the whole organisation during 2015/16 as the new facilities at Culham become operational, and MAST and JET continue to produce new science, technology and knowledge for the future of fusion.

Professor Roger Cashmore, CMG, FRS
Chairman
29 June 2015

Chief Executive's Statement

Professor Steve Cowley

UKAEA's Culham Centre for Fusion Energy is buzzing with activity; we are assembling the upgrade of an innovative fusion experiment known as MAST–U; we're preparing the Joint European Torus (JET) for fusion power operation and we are constructing two new national centres of excellence in remote handling and nuclear materials. While we continue to play a leading role in the development of fusion energy we are increasingly finding industrial applications of our novel technology. Culham's work, in maintaining and upgrading the JET on behalf of our European fusion partners, ensures it remains the leading fusion experiment in the world and the most effective 'test bed' for its successor – ITER. We are refurbishing the machine and preparing our engineering staff to use the fusion fuel (specifically Tritium in addition to Deuterium) in JET experiments at the end of this decade. This will allow us to push towards new record performance on JET and – just as importantly – train a new generation of scientists in running fusion devices which make significant fusion power.

Our own UK domestic programme, centred on the MAST fusion experiment, is at an important stage. The major upgrade to MAST is very well advanced, indeed we are now starting the rebuild of the machine and operation will commence in 2017. This will enable our scientists to study near fusion grade plasmas at a fraction of the size of JET. MAST Upgrade will ensure that UKAEA continues to operate a world leading tokamak experiment through the 2020s.

I have previously reported on the growth of our technology activities and this has now resulted in two new centres of excellence. The construction of the first centre, the new Materials Research Facility (MRF) at Culham, is well under way and will be ready to start operations later this year. It is a key part of the National Nuclear Users Facility (NNUF), which is being developed at three locations (CCFE, the National Nuclear Laboratory (NNL) and the Dalton Cumbria Facility of the University of Manchester). The MRF will provide essential facilities for universities, industry and other nuclear research laboratories to develop advanced materials for nuclear power.

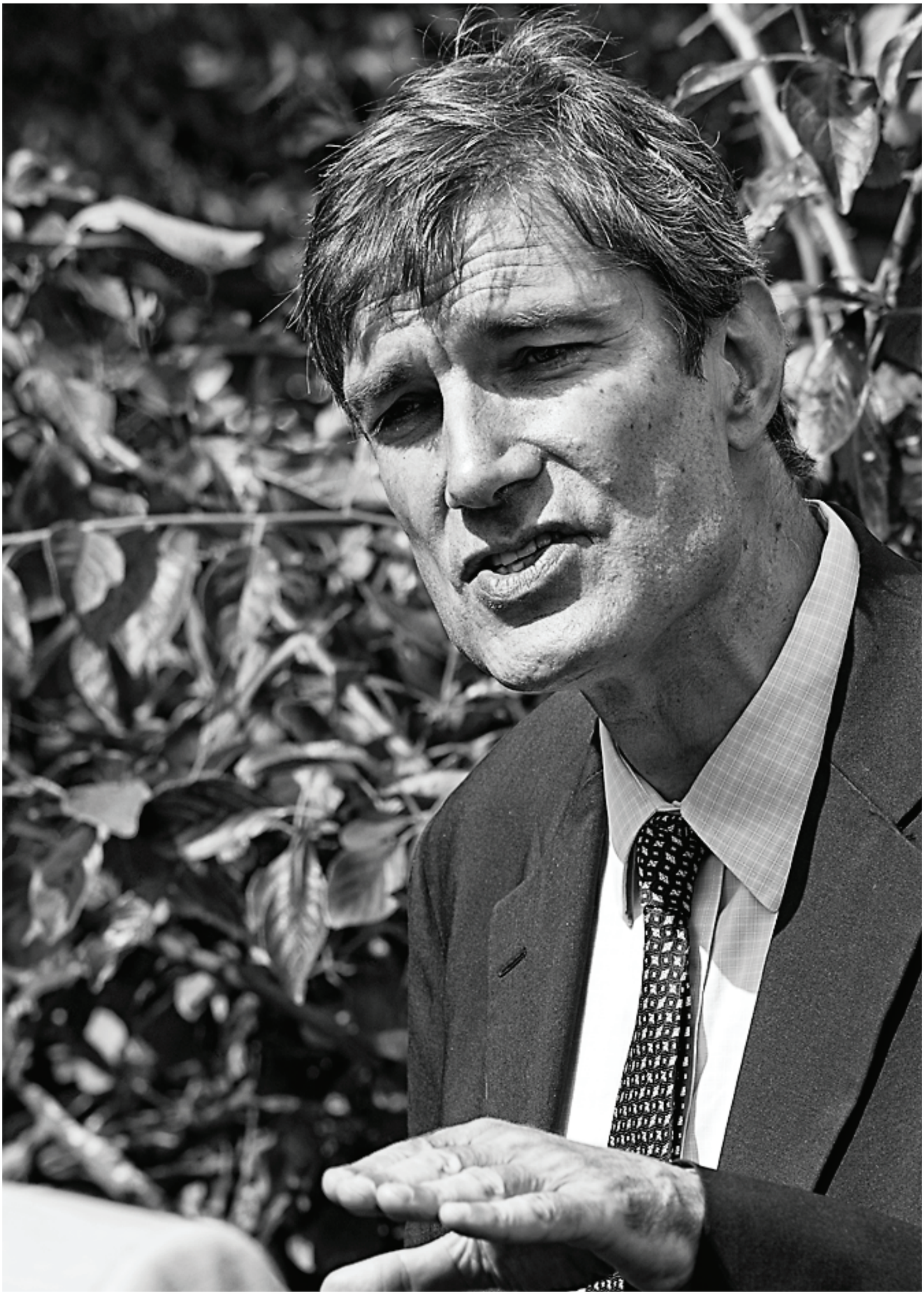
The second new centre, RACE (Remote Applications in Challenging Environments), is beginning construction. Funded by the UK Government's City Deal initiative in partnership with leading laboratories and industry, RACE enables our considerable expertise in remote handling techniques (honed on JET over the last twenty years) to be available for industry – helping them exploit a multi-billion pound world-wide market in robotics and autonomous systems. Indeed, RACE has already helped UK industry obtain over €130m of contracts this year. MRF and RACE are just two examples of a range of new technology initiatives – designed to build on UKAEA's prominent position in fusion research today and make significant contributions to bringing the design of the demonstration fusion power station (DEMO) to full commercialisation.

I am pleased to welcome two new members to my senior management team, Dr Rob Buckingham and Kay Nicholson. Rob helped the government develop its Robotics and Autonomous Systems strategy and is well placed to lead on RACE. Kay, as Head of Assurance, brings private sector and industrial experience, including BAE Systems, QinetiQ UK and Bentley Motors.

Without doubt the most enjoyable part of my experience at Culham is working with some of the most creative and skilled scientist and engineers on the planet. The grand challenge of harnessing fusion power for the world demands invention and innovation like never before, and that comes from exceptional people with extraordinary ideas. People like our new graduate engineers and physicists; like the ever larger number of PhD students we host at Culham and, of course, our award-winning apprentices. These are the people that will be solving the material challenges for fusion and fission power plants, preparing JET for record breaking performance and running the first plasmas on ITER.

Training these people is crucial and plans are well advanced to build an advanced skills training facility at Culham (in collaboration with STFC and Oxfordshire County Council) to train our own apprentices as well as those for other high tech companies in Oxfordshire. Nurturing and empowering the next generation of scientists and engineers is essential for our mission and indeed for the UK.

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer
29 June 2015



Strategic Report

The United Kingdom Atomic Energy Authority's (UKAEA's) principal mission is to position the UK as a leader in a future, sustainable energy economy, by advancing fusion science and technology and related technologies to the point of commercialisation. This mission covers both fusion and research relevant to the resurgence of UK fission and other spin-off and growth technologies.

The Materials Research Facility under construction

UKAEA was formed in 1954 when the British Government set up a new body to oversee the nation's nuclear research programme and is a non-departmental public body that reports to the Department for Business, Innovation and Skills (BIS).

UKAEA supports the European fusion roadmap through a world-leading programme in tokamak operations, plasma physics, materials science and technology research and development, which are undertaken at its fusion laboratory, the Culham Centre for Fusion Energy (CCFE). UKAEA operates JET (Joint European Torus), the world's largest fusion facility, on behalf of the European Commission. UKAEA also has its own fusion device MAST (Mega Amp Spherical Tokamak), whose innovative design is aimed at furthering the route to smaller, cheaper, fusion reactors.

The scientific research programmes are primarily funded by European funds and the Engineering and Physical Sciences Research Council (EPSRC). There is also strong input from around 20 universities and collaborations with major international industrial and academic players in fusion and fission.

Key elements of UKAEA's strategy are to:

- nurture fusion science and technological excellence to deliver breakthroughs at the frontiers of knowledge;
- build a major technology and nuclear design centre at Culham culminating in a DEMO design centre;
- develop the next generation of scientists, engineers and technologists; and
- enable UK jobs and growth.

Fusion Science

Fusion is one of the most promising options for generating large amounts of carbon-free energy in the future.

UKAEA, through its fusion arm CCFE, is one of the world's leading centres of research in the development of nuclear fusion as a source of energy for electricity generation.

JET

JET operated from June through to early October 2014, enabling scientists from across Europe to partake in several deuterium campaigns and a hydrogen campaign. Operations with the ITER-Like Wall (consisting of beryllium and tungsten tiles) saw new records set for the following:

- Maximum number of operational shifts during a campaign – total 109 shifts;
- Maximum availability of the plant – 80%;
- Highest average successful pulse rate per shift – 12;
- Highest number of good physics pulses per shift - just under 9 per shift.

These achievements meant that the scientific output was also record-breaking for the ITER-Like Wall, with high confinement plasma operation up to 4 MA, highest stored energy, and highest deuterium-deuterium neutron yields.

The planned shutdown that started in October 2014 enabled many key maintenance tasks to be carried out in advance of the 2015 campaign this coming Autumn. Scientifically, the shutdown saw various 'marker' tiles removed from the JET vessel for detailed analysis of tritium retention, a significant problem with the previous carbon tiles.

Alongside this, preparations have continued for a future series of JET experiments using deuterium and tritium – the optimal fusion fuel mix. These tests will be invaluable in giving the closest possible simulation of ITER conditions in an existing tokamak. UKAEA is carrying out the necessary engineering, safety and infrastructure work to get JET ready to operate with tritium. Phasing of the work will have to be considered against the euro – sterling exchange rate, as the majority of funding for JET is via an operating contract with the Commission.

MAST

Complete rebuilding of the MAST tokamak has progressed throughout the reporting period as part of the 'MAST-Upgrade' project. Unfortunately a combination of late availability of components, design complications and an increase in the project cost has required the project schedule to be extended by about one year. Part of the new design is a novel divertor arrangement, known as Super-X. This ground-breaking design will allow scientists to study an exhaust system for the plasma; an essential requirement for a fusion power reactor. The integrated commissioning of the machine is now planned to be in December 2016, leading to initial plasma operation by mid-2017.

Despite this delay, much work has been carried out in 2014/15 and around 40% of the main machine assembly was complete by April 2015. Highlights included:

- preparation of the vacuum vessel for refitting;
- re-installation of magnetic coils in the vessel;
- construction of coils for the 'divertor' plasma exhaust system;
- creation of a new, much larger control room for experiments;
- trial fit of the first new Neutral Beam heating components; and
- commissioning of power supplies for the upgraded MAST facility

Tokamak Science Programme

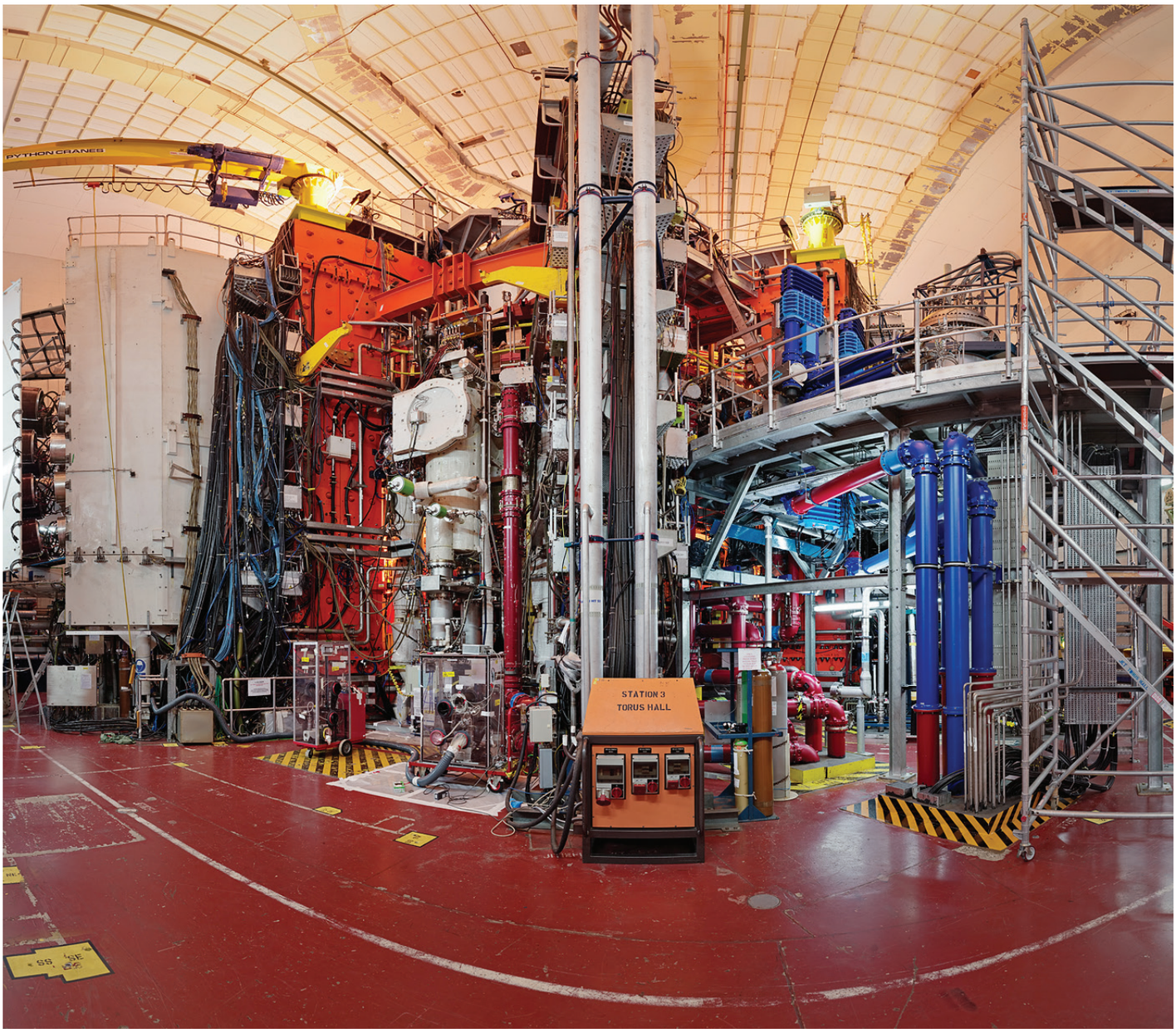
The Tokamak Science area covers MAST and JET physics studies and the accompanying theory and modelling programme. The experimental and theory programmes are strongly interwoven.

Highlights of the Tokamak Science programme in 2014/15 included:

- Edge pedestal research using data from MAST's last experimental campaign before the upgrade. This focused on methods to increase the plasma's core pressure while delaying the formation of damaging edge instabilities known as Edge Localised Modes (ELMs);

- Integrated ITER relevant plasmas in JET. On ITER heat fluxes to material components must be limited to avoid damage to the machine. To ensure this, gas will be pumped into the tokamak chamber which will be ionised and radiate light as it interacts with the plasma. The use of neon as a radiator gas has recently been tested in JET and has been shown to achieve the required power load reduction to material components;

- Understanding the plasma edge through visible imaging on MAST. When the plasma interacts with gas in the vacuum vessel it emits light. Since the majority of this interaction occurs in the edge regions, imaging this light can be a very good way of viewing this part of the plasma. A camera was used to image fluctuations in the light emitted from the plasma edge during MAST's final



experimental campaign. This information could enhance efforts to reduce the heat and particle loading to material surfaces in ITER and future tokamak fusion reactors;

- Effect of Resonant Magnetic Perturbations in MAST. The most promising method of taming ELMs is through the use of resonant magnetic perturbations. These are weak magnetic fields applied to the edge of the plasma which make ELMs more tolerable by increasing their frequency and reducing their size. Analysis of measurements on MAST has confirmed that not only is the energy content of these mitigated ELMs reduced, but the amount of heat they deposit on material surfaces is reduced;
- Melting of tungsten by ELM Heat Loads in the JET Divertor. The successful use of tungsten in JET in recent years has led ITER to adopt a full tungsten divertor. If ITER is to run smoothly it is important to understand how molten tungsten from the divertor may affect performance. This prompted experiments in JET to investigate the deliberate melting of tungsten. Encouragingly, droplets of tungsten seen in the JET plasma during these experiments were generally small and had a minimal impact on the plasma itself; and
- Improved energy confinement in JET with an ITER-Like Wall. The confinement of energy in fusion plasmas is an important factor in preparing scenarios for ITER to achieve its goals of fusion energy gain. The ITER-like Wall in JET has made it possible to investigate for the first time how energy confinement behaves when the plasma is surrounded by the materials that will be used in ITER.

Above UKAEA engineers provided the foundation for a record-breaking campaign on JET in 2014

Technology and Business Development

UKAEA's vision is to have a major nuclear energy, technology and design centre at Culham.

RACE

UKAEA is building a Remote Applications in Challenging Environments (RACE) centre as a delivery vehicle for R&D and commercial activities in the field of robotics and autonomous systems (RAS). RACE has received £7.8million of capital funding as part of the Oxfordshire City Deal and £2million from the Local Enterprise Partnership. RACE is building upon a unique remote handling technology, developed as part of the world-leading fusion research programme at Culham, and 20 years of operational experience at JET.

RACE is being formed specifically to engage with industry in order to increase the UKAEA's contribution to UK plc. The impact of successful delivery of this R&D will be new jobs and growth in the private sector, sustainable finances and international recognition.

In January 2015, Greg Clark MP, the then Minister of State for Universities, Science & Cities, visited Culham to formally start the construction of the new RACE centre with a ground breaking ceremony. Construction of the new facility will continue through 2015/16.

Technology and Materials Programmes

CCFE is one of the leading European labs in EUROfusion's Power Plant Physics and Technology programme, reflecting the ability to offer an integrated engineering package from concept design to implementation. UKAEA has secured four of the ten Project Leader roles in Remote Maintenance, Integration, Safety and Environment and Socio-economics with a further two sub-project leaders in Engineering Design Data Integration and First Wall Design.

The divertor target is one of the most challenging areas in the design of DEMO, having to sustain tens of MW/m^2 surface heat flux as well as aggressive surface erosion and intense 14MeV neutron bombardment. In 2014, the divertor team made further significant strides towards demonstrating a viable DEMO divertor target based on water cooling. The focus is on the CCFE-originated "Thermal Break" target concept, using a combination of design optimisation, mock-up manufacture and experimental testing.

Materials studies covered a diverse range of key topics, from the effect of the fusion plasma on the beryllium and tungsten inner wall of JET, to analysis of the composition of steel alloys for fusion and fission reactors, data on neutron activation of reactor materials, and the deformation of irradiated metals.

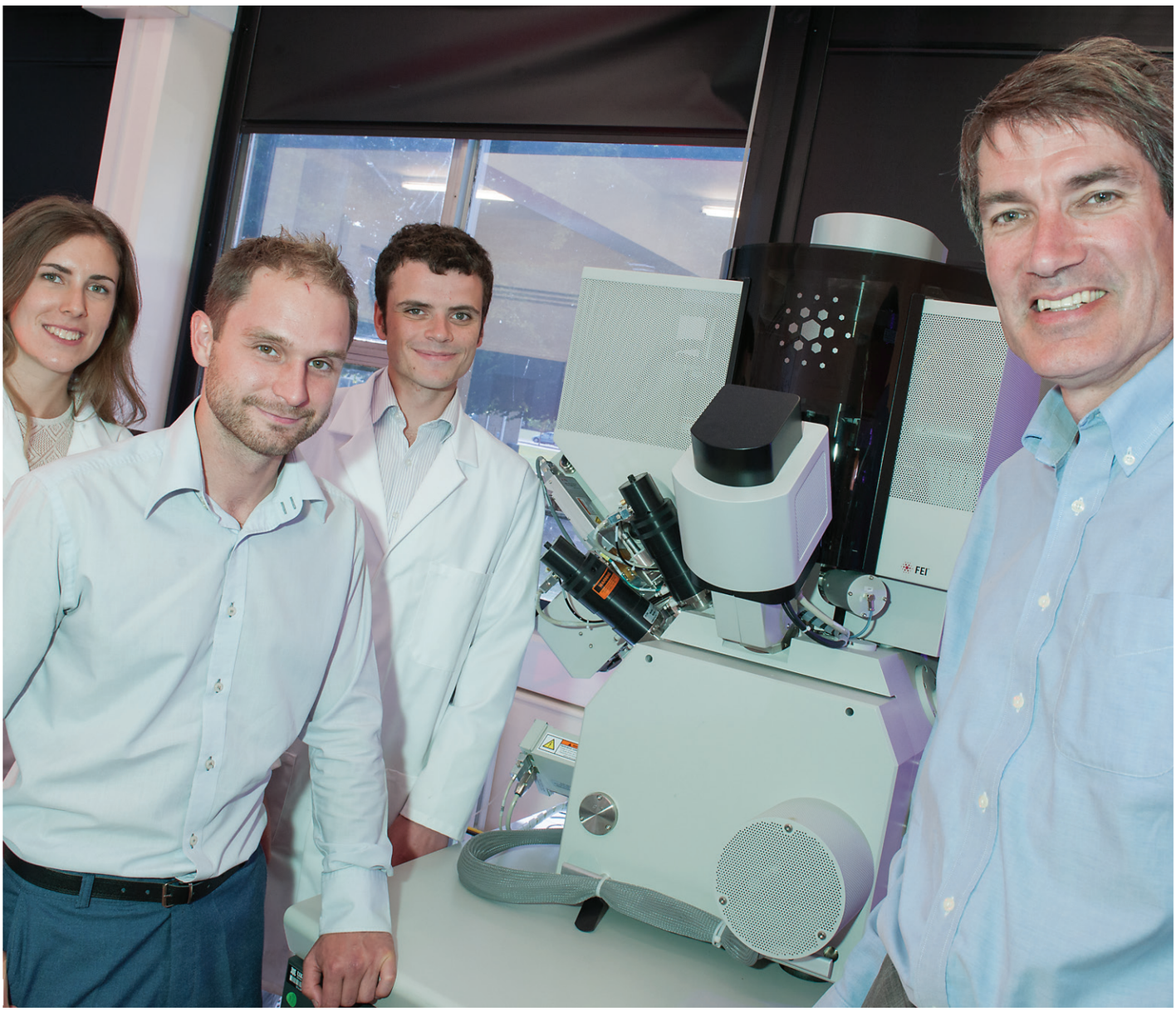
Construction of the Materials Research Facility (MRF) has started and is scheduled to be completed in late 2015. Part of the EPSRC-funded National Nuclear User Facility (NNUF), MRF will equip the UK with an important new capability for examining nuclear reactor materials, both in fusion and fission. The data will be used to make nuclear power stations safer and help to extend the operational life of the existing fleet, as well as informing the design of the future generations of UK fission reactors.

Materials analysis will also be a key activity for the prototype fusion power plant DEMO. Assessing the impact of fast-moving fusion neutrons on samples in the MRF will help develop metals for DEMO's structure that are strong enough to survive for years of fusion power generation. A materials lab has been set up in advance of the MRF building and some of the apparatus has already been commissioned for use on non-active samples. This has allowed studies to be carried out for a range of users, attracting a growing reputation in the industry.

UKAEA is involved in a second NNUF project, ADRIANA, in collaboration with universities in Birmingham, Lancaster and Liverpool. The £0.4m investment at Culham aims to provide high-quality nuclear instrumentation for UK fission and fusion research and other applications. As part of this, high-resolution gamma detectors purchased in Spring 2014 are operational in a new lab at Culham.

Business Development

UKAEA has fusion know-how and capability, which is applicable in the wider commercial market place and adds value to industrial partners in their business development activities, particularly in support of ITER. During the year a number of Memoranda of Understanding have been signed with key service providers to the nuclear industry. Joint proposals are also being developed with the National Nuclear Laboratory (NNL).



In the last period the key activities have included:

- The first major ITER remote handling development contract was awarded to the UK Engineering company, Assystem UK, with UKAEA providing key design and operational engineering support. In addition remote maintenance design support is being provided to industry in the development of diagnostics integration, test blanket models and tooling developments. Developing the market links and winning these opportunities provides a significant platform of activity for the new RACE facility.
- A Technical Consultancy business unit was set up to provide specialist support to ITER organisation, Fusion for Energy (F4E) and Industrial partners. This includes use of UKAEA's Neutronics and nuclear data modelling capabilities across a wide range of ITER sub-systems, supporting the design of beam heating systems, diagnostics and control systems and adaption of specialist in-house plasma modelling tools for ITER application; and
- In the area of tritium and waste handling a number of contracts have been won for provision of support to the Nuclear Decommissioning Authority and ITER/F4E.

Above The CCFE materials laboratory made important research contributions throughout the year.

Property Development & Other Activities

UKAEA's property strategy is to support job growth in Oxfordshire by continuing to develop the Harwell campus and Culham Science Centre as significant centres for science and innovation.

CULHAM SCIENCE CENTRE

Culham Science Centre is one of the three internationally significant science and business centres that underpin Science Vale Oxford, a key engine of growth for Oxfordshire and geographic focus for the Oxfordshire Local Enterprise Partnership. It already provides employment for some 2,000 people.

The long term strategy for Culham Science Centre is to provide UKAEA with a suitable environment for its role as a key global centre for fusion and related technology, engineering and design, looking beyond the current focus on research and development, as well as developing the site to provide for a 50% growth in overall employment through attracting additional co-located business activity. Behind these headline objectives lies the challenge of addressing the building stock, some of which is now 50 years old and will require redevelopment or refurbishment.

In support of the strategy, UKAEA secured planning permission for a further new building on the site - the RACE facility – in addition to the key permissions secured in the previous year. Construction of the MRF and RACE facilities has commenced. These permissions have been secured against the background of a masterplan framework for the site which has been developed with South Oxfordshire District Council. This was expected to manifest as a Supplementary Planning Document (SPD) for the site, following a public consultation in the summer of 2014, but the emerging South Oxfordshire Local Plan 2031 and Oxfordshire Local Transport Plan, both in their consultation phases, point to important changes and opportunities for Culham Science Centre which make adoption of the SPD premature.

Approximately a third of Culham's building stock is leased commercially to external companies, mainly in the science and technology sectors consistent with the strategy. During 2014/15, one of Culham's major occupiers downsized, releasing a significant amount of space. UKAEA acted quickly to re-let the space and occupancy levels were returned to the historic high levels, ie ~90%, by the end of the year. Around 45 external businesses are located at Culham, including the start-up companies in the Culham Innovation Centre.

Harwell

As reported last year, Harwell Oxford Development Ltd was selected as the private sector partner in the joint venture to develop the campus. With the positive support of UKAEA and STFC (public sector shareholders and partners in the joint venture), Harwell Oxford Development Ltd has implemented a vigorous programme to promote the campus and revitalise the activity to attract new investment and occupiers to the campus. This programme includes re-branding (as part of a significantly up-graded marketing initiative) and planning applications for a new phase of development on the campus including a new Innovation Centre and a new building providing grow-on space.

These new developments will build on a range of new buildings which were largely constructed during 2014/15 including The European Space Agency's new European Centre for Space Applications and Telecommunications and STFC's major new facility for RAL Space. In 2014/15, the joint venture completed a significant extension to Element 6's Global Innovation Centre, only a year after the opening of the first phase. As a consequence of the re-invigorated joint venture, the partners are pursuing an increasing range of commercial and public sector prospects in pursuit of the government vision for the campus.

Artist's impression of the RACE building

The partnership also made representations on the emerging Local Plan with a view to securing additional allocations for residential development to support an integrated strategy, consistent with the vision for the campus, and reflected in the emerging masterplan for the whole campus.

In January 2015, UKAEA took back control of the frontal part of the old nuclear site following decommissioning, delicensing and de-designation of the land by the Nuclear Decommisioning Authority (NDA). This will enable further development of the campus by the joint venture including the construction of the Innovation Centre and a new link road, funding for both of which was secured during the year.

Other activities

UKAEA is responsible for the governance and oversight of the UKAEA's pension schemes, which cover around 45,000 members from the civil nuclear industry. The Public Service Pensions Act 2013 requires UKAEA to change the provision of pensions for future service from a final salary to a career average basis. A proposal has been submitted to HM Treasury about future arrangements and discussions continue about the introduction of the required changes.

The property programme and various legacy activities such as management of historic liabilities are funded by BIS by grant-in-aid under the Shareholder Programme Agreement.

Staff numbers

UKAEA had an average of 647 full time equivalent (FTE) employees during 2014/15, compared with 585 in 2013/14. In addition, an average of 443 FTE agency workers were employed, compared with 413 in 2013/14. Significant effort has gone into recruitment to fill vacancies and to position UKAEA for the future.

At 31st March 2015 all five of the Board members were male and three of the ten members of the Executive Committee were female. Of the 681 employees at 31 March 2015, 147 (22%) were female and 534 (78%) were male.

Stakeholder Engagement

Making a Sun on Earth - harnessing the process that heats the Sun is a major challenge for mankind.

1. Greg Clark MP, Minister of State for Universities, Science and Cities, visiting Culham in January 2015 to break ground at the RACE building site.
2. Engineering masterclass event at CCFE for local schools.
3. Tour of JET for physics students, part of UKAEA's extensive educational outreach programme.
4. Steve Cowley hosting a visit by the National Nuclear Laboratory board in January 2015.

UKAEA has an active engagement programme to maintain political support for fusion research, to keep stakeholders informed of its activities and to help educate the next generation. This includes providing support to the EUROfusion Leader for wider engagement of MEPs, stressing the importance of the European fusion programme in support of ITER.

UKAEA also has an industry liaison function that works closely with businesses in order to achieve the maximum benefit from fusion – and particularly the ITER project – to the UK economy.

Industry

UKAEA's Fusion & Industry programme played a pivotal role in involving British companies in fusion during the year, resulting in a number of new and existing firms securing work from the ITER project. UKAEA continued its effort to identify and encourage UK companies to bid for ITER contracts, either on their own or in a consortium. By the end of 2014, UK companies had secured over €320m of work on ITER.

UKAEA also promotes UK industry's capabilities in fusion through events and exhibitions. Delegations attended key international conferences including SOFT 2014 in San Sebastian, Spain and the 2015 ITER Business Forum in Marseille, France. At Culham, the annual Technology & Innovation Exhibition, organised by Nu-Tech Associates, promotes engineering equipment and associated services to the UK nuclear industry. This event returned to Culham for its twelfth year in April 2014.

An additional aim of the industry programme is to promote technology transfer between fusion and commercial businesses, mainly through the well-established Technical Support Package. UKAEA provides this technical advisory service to tenant companies at Culham Science Centre site through a combination of know-how and practical engineering.

Outreach and public engagement

UKAEA runs an active education programme, involving many staff volunteers, to promote careers in physics or engineering to young people. More generally it works to raise the profile of fusion and the research at Culham, both in targeted interest groups and among the public as a whole.

During 2014/15 there were 150 visits involving well over 2,000 visitors, including politicians, industry, the research community, schools, universities and professional societies.

The 'Sun Dome' continues to provide an immersive and interactive introduction to fusion for primary school students. In addition to touring Oxfordshire schools, collaborators at University of York took the Sun Dome to schools around York. A new initiative this year is the STEM Dome - a communication-based project aimed at promoting STEM (Science, Technology, Engineering and Maths) careers and an awareness of fusion science to the 14-16 year age group. A group of UKAEA graduate trainees developed the STEM Dome as a set of fusion-related interactive demonstrations that can be taken into classrooms. The group has held workshops with teachers and run trial sessions in schools with activities using lasers, robots and ferrofluids.

Staff also undertook outreach activities at many off-site events. A particular highlight was an exhibition of art and photography inspired by fusion at the Cornerstone Arts Centre in Didcot. 'Making a Sun on Earth' was organised by UKAEA and featured artist Doug Patterson's paintings of JET, and the work of two professional photographers who have recently visited Culham. The exhibition was open to the public free of charge and was accompanied by a series of activities for schools, 'Meet the Scientist' events and a public talk by CEO, Steve Cowley. It was an excellent opportunity to engage people in the local community who would not normally come into contact with fusion or science in general. From the comments received it achieved this objective.

High-profile media appearances in 2014/15 enabled UKAEA to increase awareness of fusion and the work at Culham. Examples included: an episode of BBC Radio 4's discussion programme 'In Our Time', which dedicated an episode to fusion in October 2014 (Steve Cowley was one of the guests); a report on primetime ITV current affairs series 'On Assignment'; articles and podcasts in The Guardian; a BBC News website story on the plans for JET; a BBC World Service documentary on ITER; and a cover feature in popular science magazine 'Focus'.

27 requests for information were received in 2014/15 and treated under the Freedom of Information Act regime. All were completed within the 20-day limit.

University Collaborations

Universities make many contributions across the whole spectrum of UKAEA's research programme; in plasma physics and instrumentation, materials science, nuclear data and neutronics, and fusion technology. There are links with over 20 universities, most involving PhD students, of which there are over 40. Many of these students are part of the EPSRC-funded Fusion Centre for Doctoral Training, which is led by the University of York and also involves Durham, Liverpool, Manchester and Oxford. As well as student research, several university academics have fusion as part of their research activities, most notably at York and Warwick (plasmas) and Oxford (plasmas and materials). In fusion technology, a new joint-professor started at Sheffield towards the end of 2014.

Key Performance Measures

UKAEA takes a balanced scorecard approach for its corporate performance measures. The JET milestones and fusion programme milestones represent the core of scientific research at Culham and both show even better performance than in 2013/14. During the year MAST-Upgrade project encountered technical complications and suffered supplier delays, requiring the project plan to be rescheduled.

The business development target has not been met, which is in part due to delays in anticipated work from ITER, however, there is a healthy bid pipeline. The commercial property target was met despite losing a major tenant mid-year and the property team have worked hard to bring occupation levels back up. There has been excellent performance on completion of audit actions on time.

There has been very high level of performance on the key improvement programmes, in particular, all the targets for the project to replace UKAEA's financial, HR and procurement system were achieved on time or early. There has been a very significant reduction in the time to recruit.

Performance Measures	Target	Provisional Outturn
Key Scientific and Engineering Measures		
Achieve the 2014/15 performance milestone targets for JET Operations	80-100%	27 out of 31 JET milestones (87%) were delivered on time
Achieve the 2014/15 Fusion Programme milestones agreed with EPSRC	80-100%	37 out of 43 milestones (86%) were delivered on time
Achieve the 2014-15 milestones for the MAST-Upgrade project	Targets for each milestone	3 out of 8 (38%) milestones were delivered on time
Achieve targets for EUROfusion bids for 2015	2014 levels	Target not achieved
Achieve the 2014-15 milestones for the RACE Project	90-100%	10 out of 11 (91%) milestones were delivered on time
Key Business and Financial Measures		
Achieve the 2014/15 strategy milestone dates	80-100%	12 out of 15 milestones (80%) were delivered on time
Achieve the external business development revenue targets	Budget figure	Budget target not achieved
Achieve the operating profit targets from commercial property management	Budget figure	Budget target exceeded
Achieve the UKAEA Audit actions	100% red, 80% amber & 50% of green actions	All internal audit actions were completed on time. All bar 4 green management system audit actions were completed on time
Key Process and Cultural Measures		
Achieve the 2014/15 milestone dates in the Safety, Health and Environment improvement programme	80-100%	27 out of 29 milestones (93%) were delivered on time.
Achieve the milestones/targets for the following key projects: • Implementation of SAP replacement project; • Implementation of Research Data Policy; and • Process transition project	80-100%	11 out of 12 milestones (92%) were delivered on time
Reduce average time taken to recruit	10% reduction	40+% reduction achieved

Principal Risks

Effective management of risk and opportunity is essential to the delivery of UKAEA's objectives. The management of risk is linked into the strategy for the business, the environment in which it operates and the delivery of business objectives.

The principal risk to UKAEA continues to be focused on the uncertainty of funding for the medium and longer term. This has been exacerbated by the adverse Euro / Sterling exchange rate impacting a significant proportion of UKAEA's income. Funding constraints mean that some elements of the overall UK Fusion programme have been postponed. Efforts continue to promote Fusion in both the scientific and general press.

Work continues to identify and secure other sources of income and although this presents some inherent risk the business development opportunities are sizable. Collaborations with external organisations provide the UKAEA with greater opportunity and resilience. In the longer term, the goal is to host an integrated nuclear design centre to coordinate and undertake detailed engineering design of both future fusion and fission facilities.

Risks to the delivery of some key projects including the MAST Upgrade and technical readiness for JET Deuterium/ Tritium operations remain a concern, but improvements are underway to strengthen programme and project delivery processes which, allied with other mitigation measures, should reduce the risks.

Significant efforts have been made to ensure UKAEA has the right skills and people in place to deliver its vision. There is an increasing demand for engineering and science skills and recruitment in a niche market remains very challenging. Activity is ongoing with regard to attraction and retention strategies as well as improvements in the recruitment and performance management processes. Longer term mitigation includes continuing in-house development of talent and effective succession planning.

Agreement has been reached with BIS to procure a replacement for the SAP platform (finance and HR administrative processes) and activity is progressing to plan. Risks associated with this transition are being closely monitored.

The health and safety of personnel, be they employees, contractors, visitors or members of the public and protection of the environment is paramount to us. We take our obligations in this area extremely seriously and expect all safety and environmental risks to be assessed and as low as reasonably practicable. Robust safety measures and systems are in place.

Above Inspection of components for the MAST-Upgrade tokamak.

Financial Review

Key figures

Revaluation credit

One of the key figures in this year's accounts is a credit to the income statement of £5,694k relating to an increase in value of UKAEA's investment properties following their annual revaluation (see note 13). £3,671k of this increase related to Harwell and £2,023k to Culham. The increase in values at Harwell was mainly due to the inclusion in the valuation of an area of land recently de-designated by the NDA and released to UKAEA. The increase at Culham was mainly due to the improved rental market. The effect of the revaluation credit on the Accounts is discussed in the analysis of operating performance below.

Nuclear Liabilities Estimate

The estimated cost of decommissioning and environmentally restoring the JET facilities at UKAEA's Culham site is £256,525k, in 2014/15 money values and discounted, at rates and using the methodology advised by HM Treasury, to the date of the Statement of Financial Position. It is expected that the part of the Culham site on which the facilities are located will be designated to the NDA after the current research programme has ended and the liabilities will be transferred to NDA at that time. Further details of the provision, and the effect of certain key factors on the estimate, are disclosed in Note 21a.

Operating performance

Revenue for the year was £100,374k (2014- £99,062k). This increase related to the Fusion operating segment. The Group made an operating profit of £2,426k (2014- £8,511k). A revaluation credit of £5,694k was partially offset by losses of £3,797k in AEA Insurance Ltd relating to historical long latency disease claims, and associated consolidation adjustments. The retained profit for the year after financing but before income tax was £2,672k, compared with £8,479k in 2014. This variance was for the same reasons as the variance on operating profit. Profit for the year after taxation was £1,182k compared with £7,681k in 2014.

Basis of preparation of the accounts

The financial statements comply with the provisions of the Atomic Energy Authority Act 1954 and the Accounts Direction issued by HM Treasury. Further detail is provided in Note 2 to the Financial Statements.

Going concern

The financial statements have been prepared on a going concern basis. The Directors believe that the commitment of Europe to fusion research evidenced by the current five year contract between UKAEA and the Commission for the operation of JET, and the acceptance by BIS of responsibility for costs associated with UKAEA site restoration and restructuring liabilities, are sufficient to support continuing operations for the foreseeable future. More details are given in Note 2 to the Financial Statements.

Other financial information

Taxation

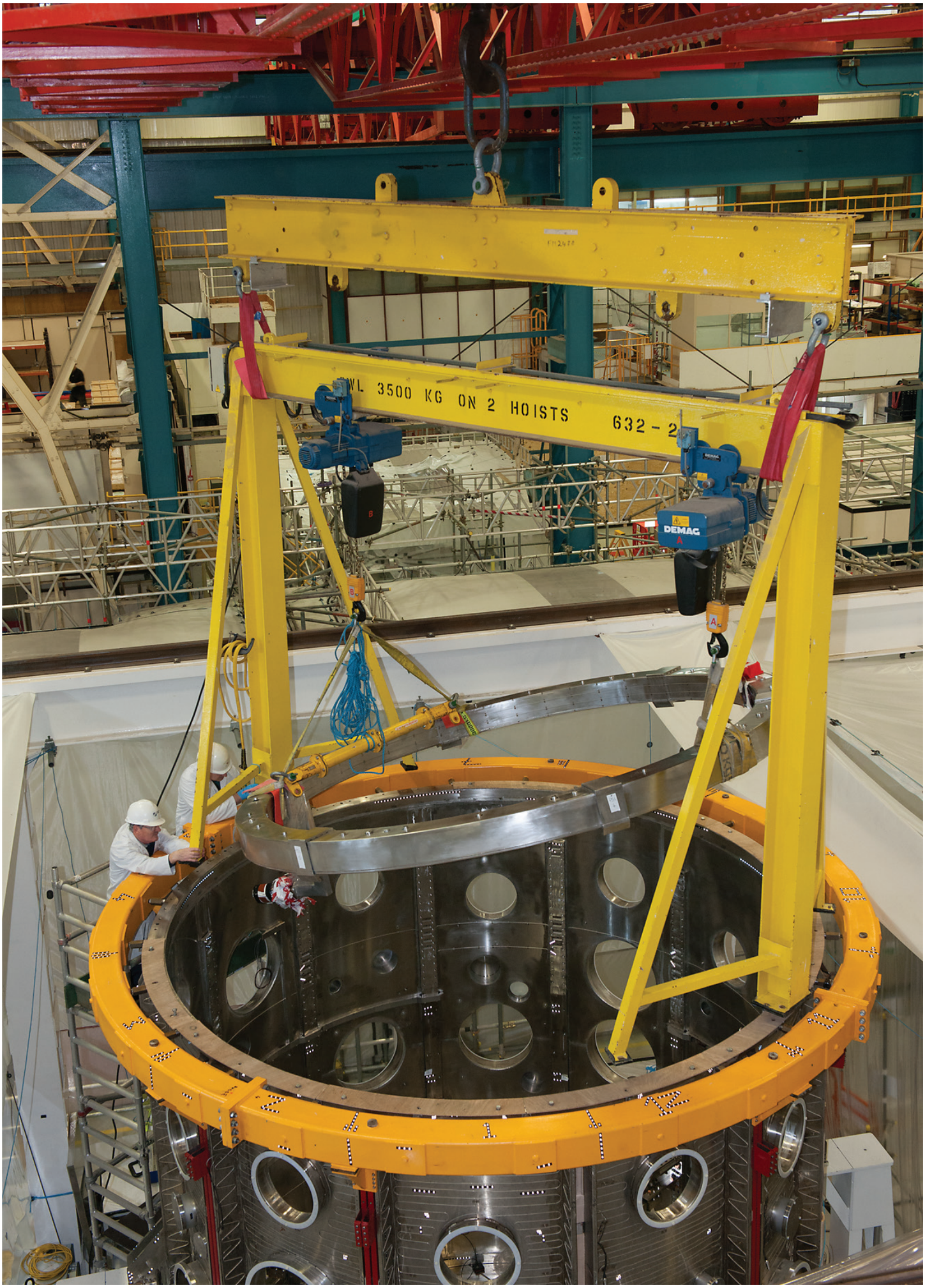
The Statement of Comprehensive Income shows an income tax debit of £1,490k (2014- debit of £798k). This relates entirely to deferred taxation arising from the revaluation of investment property.

No current taxation was due in the year. UKAEA continues to submit claims for research and development tax relief annually to HM Revenue and Customs, and these offset non-trading profits from property and other activities.

Insurance

During 2014/15, UKAEA insured most non-nuclear risks through its wholly-owned subsidiary, AEA Insurance Ltd (AEAIL). AEAIL also covers some nuclear risks, but in the main where necessary these continue to be covered by the UK Government under the Nuclear Installations Act 1965. UKAEA will continue to cover most of its remaining insurance requirements through AEAIL.

Right A poloidal field magnetic coil is lowered into the MAST-Upgrade vacuum vessel in December 2014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Sustainability Report

Summary Data

Table 1: Summary of financial and non-financial information for 2014/15

Area		2011/12	2012/13	2013/14	2014/15
Greenhouse gas emissions (Scopes 1-3 excluding international air travel) (CO_2(e) '000 Tonnes)		86.8	40.6	60.8	68.2
Estate Energy	Consumption (mill kWh)	66.4	54.4	67.1	64.6
	Expenditure (£k)	4,813	3,887	5,180	4,560
Estate Waste	Amount (tonnes)	795.5	857.7	802.1	693.1
	Expenditure (£k)	416	344	219	110
Estate Water	Consumption ('000 m^3)	83.2	69.4	99.8	110.5
	Expenditure (£k)	205	162	216	217

For more detail (figures and discussion) see Tables 2-4.

UKAEA continues to report quarterly against the Greening Government Commitments scheme, but an exemption has been granted with respect to the scheme's reduction targets, due to the nature of the energy research carried out at Culham. Work has progressed in 2014/15 to baseline the organisation and integrate good environmental practices into existing systems as well as make improvements to the site carbon footprint.

Existing biodiversity areas, established under UKAEA's Biodiversity Action Plan, are maintained in a way as to encourage the natural development of these areas. New initiatives have been undertaken in 2014/15 to further enhance biodiversity onsite through the provision of 'bug hotels' and bat boxes to create habitats for wildlife. Groundworks have also been undertaken in preparation for further improvements next year.

Sustainable procurement standards are incorporated into Pre-Qualification Questionnaires and Tender Documents as standard UKAEA practice. The sustainability standards are applied in a range of areas through use of the Government Buying Standards as new or re-tender procurement exercises arise. One area for improvement is to embed sustainability practices within the supply chain. A small number of new construction projects have been started onsite during 2014/15 and UKAEA supports sustainable construction through the contracts placed.

Data Collection

Electricity and water use, fugitive emissions, waste production and staff numbers vary depending upon whether the JET and MAST machines are operating during the reporting year. During operations, fugitive emissions, electricity and water use increase. In periods where the machines are not operating (shutdowns), waste production and staff numbers increase. Given this background, it is difficult to identify a suitable consistent factor considered appropriate to aid comparability between years over the whole site. Energy analysis over the year has, however, improved to identify normalisation factors where possible and can be used for tracking of consumption. In areas with a stable energy profile, an automatic metering system has been installed. Enabling this separation of areas and ensuring better data granularity will improve trending and analysis and identification of energy saving opportunities in subsequent years.

The collection process for sustainability data is now well established and part of routine operations. Problems remain with data availability from some third parties, and these contracts will be the focus for the coming year.

Scope 1 emissions

Fugitive emissions

During machine operations much of the high voltage equipment is filled with sulphur hexafluoride (SF_6), a very powerful greenhouse gas, and fugitive emissions form a major part of UKAEA's carbon footprint. High voltage equipment is emptied of SF_6 for the duration of machine shutdowns, and SF_6 emissions are therefore zero during these periods. Comparison with the previous financial year is possible due to the similar amount of time spent in operational and shutdown periods. However, the use of SF_6 is higher this year due to planned investigative work used to assess leakages in the system and identify potential improvements. UKAEA has made considerable progress in this area and substitution of SF_6 is planned for major operational areas prior to machine restart. The benefits in relation to significant carbon footprint reduction will be realised during the next operational period.

Data collection of SF_6 usage is now standard and the data is being widely used as an operational indicator as well as for carbon footprinting purposes.

Gas consumption

Gas use, for heating and catering purposes, is regularly monitored and reported internally. Consumption largely follows the anticipated pattern based on average weather conditions.

Transport

Vehicles owned by UKAEA are also classified within Scope 1 emissions. Mileage logged by the limited number of owned vehicles is recorded and reported quarterly. This is included in the total Scope 1 emissions for completeness even though it does not having a significant bearing on the total.

Scope 2 and 3 emissions

Electricity consumption

After fugitive emissions, electricity consumption remains our most significant environmental impact and resource use. It is acknowledged that significant amounts of electricity are required to operate the research facility so operating efficiently remains key. Progress has been made this year through the installation of fan controls to reduce operational electricity consumption.

Table 2

Greenhouse gas emissions		2011/12	2012/13	2013/14	2014/15
Non-financial indicators ($1,000\ tCO_2e$)	Total emissions (Scope 1-3)	86.84	40.56	60.76	68.16
	Total net emissions	86.84	40.56	60.76	68.16
	Gross emissions Scope 1 (direct)	50.91	18.19	32.84	42.18
	Gross emissions Scope 2 & 3 (indirect)	35.93	22.37	27.92	***25.98***
Related energy consumption (million kWh)	Electricity: Non-Renewable	56.09	39.81	53.69	***45.82***
	Electricity: Renewable	0.00	0.00	0.00	0.00
	Gas	10.27	14.56	13.38	18.79
	LPG	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00
Financial indicators (£k)	Expenditure on Energy	4,817	***3,887***	***5,180***	***4,560***
	CRC Licence expenditure	426	426	***412***	***471***
	Expenditure on accredited offsets	–	–	–	–
	Expenditure on official business travel	***345***	***419***	***525***	***509***

Commuting

The Culham site is located in rural South Oxfordshire and the options for public transport are limited. However, environmentally friendly methods of commuting are encouraged where possible. The Culham Traffic Count is conducted annually in September to provide data on the modes of transport chosen for commuting. The 2014/15 survey results show a shift away from car driving to more sustainable modes of travel. UKAEA promotes the use of sustainable transport for commuting through the Cycle to Work scheme, running a Cycle to Work day annually in summer and operating the Culham CarShare lift sharing scheme. The Cycle to Work day saw an 18% increase in cyclists joining the event compared to the previous year. As commuting is an indirect impact of onsite activities, a representative from UKAEA takes part in negotiations with local public transport providers, with the aim of improving public transport to and from the site.

Business travel

Due to the international nature of fusion research, travel across the world is often required. Travel undertaken as part of business activities is reported within scope 3 emissions. A carbon emission reduction of 37% compared to the previous year has been achieved through a reduction in business travel mileage and choosing less carbon intensive transport methods where travel is still required. Sustainable transport methods and teleconferencing are promoted wherever possible.

Waste production

Waste streams are optimised through onsite segregation leading to 92% of controlled waste diverted from landfill during the year, increased from 80% in the previous year. Moving the management of waste further up the waste hierarchy has resulted in more cost effective disposal as total waste disposal costs have reduced by nearly 50% since 2013/14. It is now standard procedure in waste management contracts to require appropriate data for reporting and prioritise sustainable disposal routes.

Radioactive and Out of Scope of Regulations (OSR) waste are also included for completeness. OSR waste constitutes material where the activity is low enough to fall below the threshold set by the Environmental Permitting Regulations to be classified as radioactive waste. An amendment to the regulations in 2012 introduced a hazard based isotope specific threshold therefore allowing some waste previously deemed as radioactive to be disposed of as OSR waste. Following the site initiative to reduce holdings of radioactive spare parts for reuse in the last period, radioactive waste production has reduced back to historical levels. Radioactive waste disposals remain similar to previous periods. However following the issue of a new Environmental Permit, disposals are expected to increase in the next period and a new route was opened for Low Activity Low Level Waste (LLW) in January 2015, reducing disposal costs significantly. Good progress has been made in 2014/15 with the processing of waste liabilities and significant investment has been made with the construction of a 'Bulk Suited Facility' which has now been commissioned and is contributing to accelerated processing.

Finite resource consumption

Water use

Water use data is routinely collected and reviewed internally. Water consumption increased in 2014/15 compared with the previous year; this is due to the refurbishment work undertaken during a shutdown period on the JET cooling water distribution system. For this work to occur, the system required draining and flushing followed by refilling during the period ready for JET to undertake operations in 2015. An external audit conducted in June 2014 identified minor opportunities to conserve water resources and completed a water balance exercise for the site. As a result, metering and accountancy have improved to provide accurate baseline data for future investigations.

Paper use

Usage of office paper is tracked and measured data is available for the reporting period. The increase in paper use during 2014/15 can be attributed to an increase in staff numbers and new facilities requiring more printing devices. However, a trial of 'follow-me' printing was conducted in 2014/15 and showed an average 8% reduction in consumption. A site wide roll-out commencing in 2015/16 is expected to reduce paper consumption.

Social sustainability

UKAEA carries out a diverse range of outreach activities aimed at various stakeholders. There continues to be a strong education outreach programme, involving up to 2000 university and A Level students and a further 3000 pupils in years 5 and 6. Further support to local education and community projects was provided through UKAEA's Sponsorship Fund in 2014/15 as well as supporting individuals or groups in their charitable activities.

Sustainability Report continued

Table 3

Waste			2011/12	2012/13	2013/14	2014/15
Non-financial indicators (tonnes)	Total waste disposed of		795.54	857.67	802.06	693.07
	Hazardous waste	Total	67.66	122.31	37.27	36.83
	Non-hazardous waste	Landfill	165.25	161.05	149.32	52.98
		Reused/Recycled	513.85	511.49	470.09	434.62
		Composted	27.04	24.96	24.96	27.04
		Incinerated (energy recovery)	0.00	0.00	95.24	115.90
		Incinerated (no energy recovery)	0.01	0.05	0	0.05
		Total non-hazardous waste	706.15	697.55	***739.61***	630.59
	Radioactive	Produced	44.59	20.59	***129.72***	46.89
		Disposed	21.73	19.13	19.07	18.66
	OSR	Produced	0.98	1.59	28.77	13.19
		Incinerated (no energy recovery)	0.00	18.69	***6.9***	6.99
	Total Radioactive / OSR waste disposed of		21.73	37.82	***25.97***	25.65
Financial Indicators (£k)	Total disposal cost		416	344	***203***	110
	Hazardous waste disposal cost		No data	7	***37***	22
	Non-hazardous waste disposal costs	Landfill	No data	29	***35***	7
		Reused/recycled	No data	-5	***-102***	-81
		Composted	No data	1	***2***	2
		Incinerated (energy recovery)	No data	0	14	10
		Incinerated (no energy recovery)	No data	0	0	0
	Radioactive	Disposed	317.15	271	209	138
	OSR	Incinerated (no energy recovery)	0	41	6.9	13

N.B. The figure for 'Compost' is food waste sent for anaerobic digestion. Negative financial figures for 'Reused/Recycled' reflect rebates received from scrap metals.

Public outreach centres on a series of popular free public open evenings; 9 of which were run in 2014/15, each enabling 100 visitors to come and see what fusion research is all about. A consultation event was also held on future development of the Culham site. UKAEA is an active supporter and participant in both local and national Science Festivals.

In addition, an increasing number of staff events are being arranged bringing a diverse workforce closer together. Regular 'Show and Tell' events open up areas and projects for all staff to visit, from new projects such as MAST-Upgrade to seeing normally closed areas such as Power Supplies. Summer sees a keenly contested softball tournament involving staff, contractors and tenants on site.

Future plans

As part of an integrated management system, UKAEA will continue to operate an Environmental Management System certificated to ISO14001 which will shortly be aligned to the new 2015 standard. Successful improvements made in 2014/15 through the Safety, Health and Environment (SHE) Improvement Programme include extensive work to reduce fugitive emissions and reductions in operational electricity consumption through fan controls, which are expected to payback within 18 months. Building on these successes in 2015/16, UKAEA will continue to identify projects as part of the overall UKAEA Energy Strategy; this will include improvements in building electrical usage working with information gathered from the newly installed Trend data system.

UKAEA's future strategy is to focus on embedding sustainability within the organisation through the integration of environmental practices into existing processes. Monitoring of SF_6 to ascertain the degree of success of the substitution and reduction programme will be imperative during the 2015 JET operational period. Continual improvement of environmental performance is essential and low cost actions to address areas of improvement, particularly electricity consumption, will be further identified in the coming year.

Table 4

Finite resource consumption			2011/12	2012/13	2013/14	2014/15
Non-financial indicators ('000m^3)	Water consumption (whole site)	Supplied	83.22	69.38	99.77	110.54
		Abstracted	N/A	N/A	N/A	N/A
		Supply per FTE	0.08	0.08	0.09	0.10
	Average number FTE staff/contractors		937	907	998	1,090
	A4 paper reams equivalent		9,000	6,000	5,800	8,200
Financial indicators (£k)	Water supply costs (whole site)		205	162	216	217
	Paper supply cost		16	10	13	17

NOTES

1) The report above has been prepared in accordance with guidelines laid down by HM Treasury in 'Public Sector Sustainability Reporting' published at ***https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/413220/PU1787_Public_sector_annual_reports_sustainability_reporting_guidance_2014-15.pdf***

2) The greenhouse gas emissions were calculated (from the raw data) using DEFRA/DECC conversion factors ***(http://www.ukconversionfactorscarbonsmart.co.uk/)***

3) Figures which have been partially or entirely estimated or revised in tables 1-4 are in bold italics. Explanations of each estimate follow:

a. CRC Licence Expenditure – The estimated figure for 2013/14 has been updated. The 2014/15 figure is an accrual

b. Waste figures – Estimated figures from 2013/14 have been updated.

c. Electricity consumption and Scope 2 emissions – Figure includes an estimate for one month on one supply rather than recorded consumption due to late billing by the contractor. This should not significantly affect the total figures. Expenditure figures for 2012/13 and 2013/14 have been adjusted for the effect of a refund received from the supplier in 2014/15.

d. Expenditure on official business travel figures has been revised for all years to align the expenditure reported fully with the non-financial data reported.

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer
29 June 2015

Directors' Report

United Kingdom Atomic Energy Authority Board

The Directors of the Board, and where appropriate the period for which they served during the year, are set out below.

Chairman
Professor Roger Cashmore, CMG, FRS

Executive Directors
Professor Steve Cowley FRS, FREng, Chief Executive Officer (CEO)

Non-Executive Directors
Professor Sir Keith Burnett, CBE, FRS
Peter Jones, FCCA
Steve McQuillan

Authority Secretary
Catherine Pridham, ACA

Biographical details of the Directors are included on pages 25 to 26. The responsibilities of the Directors are included on page 32.

The Executive Committee

Professor Steve Cowley, Chief Executive Officer (CEO)
Martin Cox, Director of Strategy & Technology
Eric Hollis, – remained an Executive Committee member until 31st July 2014
David Martin, Operations Director
Catherine Pridham, Director of Finance and Corporate Affairs and Authority Secretary

Biographical details of the Executive Committee are included on page 26-27. Their remuneration has been included in the Remuneration Report.

Chairman and Non-Executives

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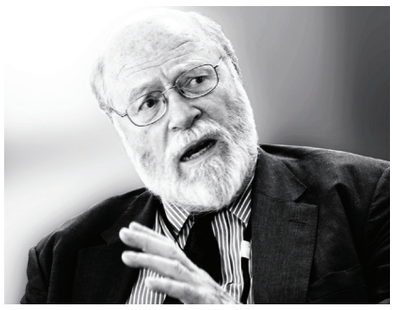

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1 Professor Roger Cashmore, CMG, FRS
Appointed Chairman of the UK Atomic Energy Authority on 30 July 2010. He is a Fellow of the Royal Society and in 2010 led the Royal Society working group on Nuclear Proliferation. He is a former Principal of Brasenose College in Oxford, and is a Professor of Experimental Physics in Oxford. Before returning to Oxford, he was Director of Research and Deputy Director General of CERN, the European high energy physics laboratory in Geneva, Switzerland, where he was responsible for the experimental programme at the Large Hadron Collider. Before leaving for CERN he was Chairman of Physics in Oxford and during his teaching and research career he has more than 200 publications in learned journals. He has been a Visiting Professor in Tsukuba in Japan, Brussels, Padua, Fermilab in the United States and holds an Honorary Doctorate from the Joint Institute of Nuclear Research in Dubna, Russia. He was awarded the C V Boys Prize of the Institute of Physics (IOP) and a Research Award by the Alexander von Humbold Foundation in Germany. In 2004 he was made a Companion of the Order of St Michael and St George (CMG) for services to international particle physics.

2 Professor Sir Keith Burnett, CBE, FRS
Appointed to the UKAEA Board on 1 November 2010. He became Vice-Chancellor of the University of Sheffield in 2007. Previously he was Head of the Division of Mathematical, Physical and Life Sciences at the University of Oxford. Before this he was Chairman of the Physics department at Oxford.

His research is in the area of ultra-cold atomic physics. His direct involvement in fusion science policy started when he was head of Physics at Oxford and chaired the review of fusion science for the DTI. This report led to EPSRC taking up the funding role for the UK effort in fusion research. He was from 2001 to 2007 Chair of the Fusion Advisory Board which advised EPSRC, and hence the UKAEA, on fusion strategy. He later chaired the expert group that helped develop the Research Councils UK Fusion strategy, and had the opportunity to assess the UK's programme for the years ahead.

Keith is a member of the Prime Minister's Council for Science and Technology. He was knighted for services to science and Higher Education in 2013. He is a member of the Higher Education Funding Council for England Board.

3 Peter Jones, FCCA
Appointed to the UKAEA Board on 1 November 2010. He has been Secretary to the Gas and Electricity Markets Authority and Adviser to its Chairman since September 2014 and he is an Associate of Frontier Economics Limited providing advice in relation to possible mergers in the healthcare sector. He was a non-executive director of National Nuclear Laboratory Limited and Chairman of its Audit Committee from 2009 to 2014 and was a Reporting Panel Member of the Competition Commission from 2005 to 2013. His previous roles have included: Principal Private Secretary to the Chairman of the National Coal Board, and during a subsequent 19 year career in Corporate Finance at Samuel Montagu & Co. Limited and HSBC Investment Banking, as a senior adviser to the Department of Trade and Industry during the 2003-4 strategic review of BNFL, as a senior adviser to Scottish Power and British Coal during their respective restructurings and privatisations and to British Nuclear Fuels Ltd during the implementation of the strategic review and also as a consultant to the Shareholder Executive and Department of Trade and Industry during the final preparations for the restructuring of the civil nuclear clean-up sector in 2004-2005.

Peter is also a qualified Chartered Certified Accountant and has had exposure to a wide range of financial management and planning issues in a variety of sectors varying from financial services to electricity production.

4 Steve McQuillan
Appointed to the UKAEA Board in November 2010. He is currently the CEO of the listed UK Engineering group, Avingtrans plc. He also has advisory board roles in Engineering UK and the EEF. A graduate electronics engineer, he started his career in the oil industry, working for American Oil giant Conoco in the North Sea. He was part of the team that sold Marconi Instruments to IFR, Inc. Recent positions include Managing Director of Oxford Instruments Superconductivity Division, Director of the National Physical Laboratory and Managing Director of the Serco Defence Operations business.

Steve is a Fellow of the IOP and a Fellow of the Institute of Directors.

Executive Team

1

2

3

1 Professor Steve Cowley, FRS, FREng

Joined the UKAEA in September 2008 as Director of Culham and was appointed to the Board as Chief Executive Officer and Accounting Officer for the UKAEA on 31 October 2009. He is part time Professor at Imperial College London and is Chair of Princeton's Plasma Physics Laboratory Science Advisory Committee. He is also a member of the Prime Minister's Council for Science and Technology and is on Kings College London's science advisory board.

A qualified physicist and Fellow of the American Physical Society and the IOP, Professor Cowley started his career at Princeton University in 1987 following his post-doctoral work at Culham. In 1993, he joined University of California, Los Angeles (UCLA) and became a Professor in 2000. From 2001, he led the plasma physics group at Imperial College, London for three years. In 2004, he was appointed Director of the Centre for Multi-scale Plasma Dynamics at UCLA and held this position before joining the UK Atomic Energy Authority in 2008. He recently co-chaired the US National Academy's decadal assessment of, and outlook for plasma science. He has published over 120 papers and articles covering theory of fusion plasmas, the origin of magnetic fields in the universe, the theory of plasma turbulence and explosive behaviour in both laboratory and astrophysical plasmas. In 2012, he was awarded the Glazebook Medal from the IOP. In 2014, he was elected a Fellow of both the Royal Society, and the Royal Academy of Engineering.

2 Catherine Pridham, ACA

Appointed as Chief Financial Officer, Director of Support Division and Secretary of the United Kingdom Atomic Energy Authority in January 2014, she previously held the role of Head of Finance, Contracts and Integrated Planning, from 2012. She was appointed Director of Finance and Corporate Affairs in December 2014. She qualified as a chartered accountant with Arthur Andersen and has worked in the pharmaceutical sector for SmithKline Beecham, Amersham plc and GE Healthcare, where she supported a number of different business areas including a commercial clinical trials business, a large R&D portfolio and a Joint Venture looking to exploit research capabilities commercially with large pharmaceutical companies. Prior to joining the UKAEA she completed several finance restructuring and process improvement projects for the Ministry of Justice and Department of Transport.

3 David Martin

Appointed Operations Director in May 2013, having previously been responsible for the Operations and Programme Delivery Division. He is a Chartered Mechanical Engineer and Fellow of the Institution of Mechanical Engineers who joined Culham after completing an apprenticeship at Harwell in 1979. Following a role in the build and operation of the Neutral Beam Testbed on JET, he joined the Engineering Group in Neutral Beams before establishing the Engineering Analysis Section. He became Engineering Group Leader and then Department Manager in 2008. In 2011 he was appointed Head of Physics and Engineering Development Division. He has held other senior engineering posts such as Engineer in Charge and Deputy Chief Engineer. David is committed to staff development and has initiated many of the training schemes presently being run at CCFE – including the apprentice and graduate programmes – helping to achieve accreditation by the Institution of Engineering and Technology (IET), Institution of Mechanical Engineers (IMechE) and the Power Academy.

4

4 Martin Cox

Appointed Director of Strategy & Technology, in May 2013. with responsibility for development of the strategy for increasing the technology activities at Culham as fusion research moves progressively towards energy production, including maximising our roles in ITER and the design of the DEMO fusion reactor. He is also responsible for overall business development and major projects including the MAST Upgrade. He was previously appointed to the UKAEA Board as Chief Operating Officer on 1 November 2010, when he was responsible for the day-to-day running of the UK's fusion research programme, and for the operation of JET on behalf of EURATOM and fusion laboratories across Europe. He also had a key role regarding the contract with the EU Commission to operate JET on behalf of Europe.

Martin is a theoretical physicist who joined Culham upon graduating, working on plasma modelling. He then became involved in the operation of the experimental facilities. In 1994 he was appointed the Project Manager for the design and construction of the MAST device. From 2000, when the UKAEA assumed responsibility for the operation of JET on behalf of the European fusion community, he became manager of the Machine Operations Department, overseeing the operation of most of the JET facilities as well as MAST. In 2007 he was appointed Senior Manager for all aspects of JET operation and in 2008 was appointed Assistant Director (Operations). He was appointed Operations Director on 1 November 2009.

5

5 Eric Hollis

Had over 40 years' experience within the UKAEA. He began his career working at the London HQ on energy forecasting and then undertook a wide range of roles including development and application of HR policy at both HQ and site levels before becoming Head of UKAEA's Finance Branch in 1986. After a number of finance-related roles, he was appointed the Head of Corporate Finance for the UKAEA Group in 2003, and acted as UKAEA Ltd's Group Financial Controller from its creation in 2008. He was on the Board of AEA Insurance Ltd since 1997, and on the Board of the Harwell Science and Innovation Campus Joint Venture since 2010. He was heavily involved in a number of major organisational restructuring projects, and played a key role in the development of corporate governance and financial strategy as UKAEA has evolved. He was appointed Chief Finance Officer and Authority Secretary for the UK Atomic Energy Authority on 1 November 2009, and Director, Support Division in 2011. He retired from UKAEA at the end of July 2014.

Finance

Auditors
Details of the remuneration of the Group's auditor are set out in Note 8. The auditor did not undertake any non-audit services during the year.

So far as the Directors are aware, all relevant audit information has been provided to the auditors and there is no relevant audit information of which the auditors are unaware. The Directors have taken all the steps required as Directors to make themselves aware of any relevant audit information and to establish that the auditors are also aware of it.

Financial Risk Management
The nature of the activities of UKAEA and its subsidiary mean that the Group is not exposed to the same degree of financial risk, or variability in financial instruments, faced by many other business entities. The two key financial risks facing the group are:

a) Foreign exchange risk, where the Group operates internationally and is exposed to foreign exchange risk from various currency exposures, primarily the Euro. To manage foreign exchange risk, the Group may use forward contracts for the purchase and sale of foreign currencies.

b) Liquidity risk, where an exposure arises from uncertainties about the timing and amount of some of the Group's income, particularly from Europe. The Group has a facility to request temporary working capital funding from the Department for Business, Innovation and Skills should the need arise. This was not utilised during either the current or preceding financial years.

Exposure to interest rate and credit risk is low.

Further details of the Group's accounting policies on financial instruments (including hedging) and financial risk management can be found in Notes 3.16 and 4 to the Accounts respectively.

Charitable and political contributions
During the year, UKAEA made charitable contributions of £4,435 (2014 £4,076) to local charities in line with its policy of supporting local stakeholders.

No political contributions were made in the current or previous year.

Pensions
UKAEA retains overall responsibility for oversight of the management of the Combined Pension Scheme (CPS), the Principal Non-Industrial Superannuation Scheme (PNISS) and the Protected Persons Superannuation Scheme (PPSS) and for the preparation of their annual accounts. The management of the Schemes and the preparation of their accounts is carried out under contract by AON Hewitt. Further details of UKAEA pension arrangements are set out in Note 22 to the accounts. The pension scheme resource accounts are at www.official-documents.gov.uk.

In accordance with the FReM, these schemes are accounted for as defined contribution schemes in these financial statements and the obligations recognised are limited to the contributions due. Further detail is at Note 3.4c.

Details of Executive Directors' pension entitlements are included in the Remuneration Report.

Statement of payment policy and practice
UKAEA follows the Confederation of British Industry Prompt Payment Code. Its policy is to settle the terms of payment with suppliers when agreeing the terms of each transaction, to ensure that suppliers are aware of the terms of payment, and to abide by the terms of payment.

In addition, UKAEA has complied, where applicable, with the prompt payment guidance for public sector organisations, which set out the requirement to pay suppliers within 10 days in order to assist the cash flow of smaller businesses, subject to the submission of valid invoices and to the usual financial control procedures.

During the year, UKAEA's suppliers were paid within an average of just over 6 days (2014 – 7 days), which is well within both the 30 days specified in the Prompt Payment Code and the 10 day public sector requirement referred to above.

Research and development
Costs associated with UKAEA's research and development activities are charged to the income statement as incurred. These activities are described in more detail in the Strategic report.

Employees

For UKAEA to build the capabilities and skills to deliver its mission it invests heavily in developing its employees.

There is commitment to developing all employees, offering a wide range of programmes and support to suit their individual career aspirations. The UKAEA runs a graduate scheme certified by IMechE, IET, and IOP. A Continuous Professional Development Scheme is similarly accredited encouraging all employees from all disciplines to become professionally recognised and PhD and MSc opportunities are offered. The IoP recognised UKAEA's plans for physicists at its 2014 awards ceremony, with an award for Best Practice in Professional Development.

In addition to the structured development schemes, individual development is provided and captured within individual Development Plans, upskilling individuals in people management, technical skills, safety and behaviours. A successful Mentoring Programme has been running for a number of years, helping to motivate and develop staff personally and professionally.

For ten years UKAEA has operated an IMechE, IET & Nuclear Institute (NI) accredited advanced apprentice scheme and is an active member of the IET Power Academy helping to attract power engineers. The UKAEA apprenticeship scheme is tailored to meet business needs and maintain the engineering skills base at technician and "hands on" engineer level, and has developed a reputation for its technical and academic excellence. This year the scheme has been recognised in the prestigious Top 100 Apprenticeship Employers compiled annually by the National Apprenticeship Service in partnership with City & Guilds and recognises excellence in businesses that employ apprentices. UKAEA has been preparing an application for a bronze Athena SWAN award, due to be submitted in 2015. Athena SWAN awards recognise good practice in gender equality for women in Science, Technology, Engineering & Mathematics (STEM) disciplines. There are strong business benefits in supporting gender equality, such as increasing our ability to attract and retain scarce skills, and achieving the award would be a good indication of our commitment to gender equality to prospective and current employees.

UKAEA is an equal opportunity employer and does not discriminate on the grounds of age, sex, ethnic origin, religious belief, sexual orientation, Trade Union membership or disability.

Sickness absence

The average sickness absence per employee for UKAEA during the 2014/15 year was 5 days per person, compared with 4.9 days in 2013/14. This is considerably lower than the public sector average of 7.9 days per employee for all public services workers in the Chartered Institute of Personnel & Development 2014 Absence Management annual survey report.

Above Trainees and graduates of the apprenticeship scheme celebrate UKAEA's Top 100 Apprenticeship Employer award

Assurance

UKAEA was awarded Gold for the fourth consecutive year in the Royal Society for the Prevention of Accidents (RoSPA) Occupational Health and Safety Awards.

Health, Safety & Environment

Health & Safety

The continuing behavioural safety programme championed by senior managers has helped maintain a positive safety culture. Additionally the benefits of the Zero Injury Programme Tours have delivered significant improvements in areas such as housekeeping, storage of chemicals and machinery safety.

As part of our commitment to the health and wellbeing of employees, various awareness campaigns were delivered which included managing pressure, a lunchtime walking challenge and a healthy bake off competition.

Electrical safety is arguably the Authority's most significant day-to-day safety hazard. The JET and MAST experimental devices at Culham operate at very high voltages and currents and electrical safety is therefore of critical importance to the Authority's overall safety performance. The conclusion of a detailed self-assessment against the Institute of Engineering and Technology has demonstrated that a high standard of electrical safety is in place.

UKAEA has maintained its excellent safety, health and environment record during 2014/15. One measure of conventional safety performance is the Accident Frequency Rate, which is the ratio of work-related lost time injuries per 100,000 hours worked. The four quarter rolling average (for our employees and contractors combined) is 0.22 as measured in April 2015, down from 0.29 in the previous financial year. This figure compares favourably when benchmarked with other organisations. There have been no lost time accidents involving our employees for over a year.

Health Physics

Robust radiation control strategies are in place. The average radiation dose to the 665 monitored/classified workers during 2014/15 was 0.003mSv which is less than 1% of both the legal limit (20mSv/year); the site dose constraint (5mSv/year); and average background radioactive dose received by members of the public (2.4mSv). The highest individual cumulative radiation dose this year was 0.240mSv which was again well within relevant limits.

Environment

Following a period of negotiation with the Environment Agency a new Permit was issued to the Authority in October 2014 for the accumulation, transfer and discharge of radioactive waste in solid, liquid and gaseous forms. The new Permit enables access to new waste transfer routes which will assist with reducing waste accumulation on-site and provides future proofing for the continuation of the JET experimental campaign. The UKAEA has ensured that the discharges and transfers have remained compliant with the permitting requirements.

The Authority took a risk based approach to managing its surface water discharges and an action plan was developed. The risk of pollution was found to be low due to the control measures in place and as a result the Environment Agency have revoked the requirement for the consents. An investigation took place during 2014/15 to fully establish the Authority's PCB liability after a number of contaminated capacitors were found. A small number of items were found and disposal is now planned to reduce the liability and any potential future costs.

Management Systems and Quality

The UKAEA operates an integrated management system for all its activities and is certified to the internationally recognised standards for quality (ISO9001), environmental (ISO14001), and health and safety (BS OHSAS18001) management. This certification was reconfirmed in September 2012 following an external audit and has been subject to a further two surveillance audits in June 2013 and 2014. In addition, Health Physics Group is accredited to ISO17025, the international standard for testing laboratories and recently Health Physics were successful in extending the scope of their certificate to cover a new quicker and safer beryllium assessment method.

The internal audit programme provides assurance to management and stakeholders that the required standards are being maintained.

Going forward further improvement in the Management System are being rolled out to ensure roust support for the new business areas as well as continuing to provide the required standards for the fusion programme.

Security

The UKAEA maintains an effective level of security working together with the Office of Nuclear Regulation (ONR) and with the security team from the Department of Business, Innovation and Skills (BIS). The upgrade in perimeter CCTV has improved security. Audits continue to show that the security standards are being maintained. Alignment with the Security Policy framework

continues to provide a balanced set of security requirements and these are being translated into a new Security Strategy. A full review of all aspects of security, personnel, information and physical, will be carried out during 2015 and any required changes implemented as appropriate.

Changes resulting from the introduction of a revised government Security Classification scheme have been implemented and all staff briefed on the changes.

Information security and risks are actively managed and monitored by the Information Assurance Steering Committee. During the year bespoke training was provided to the Information Assets Owners and a forum set up to share best practice. Assessments were made using the government's Cyber Essentials scheme, and the Knowledge and Information maturity model. These will be used to further enhance Information Assurance and IT security. There have been no reportable personal data related incidents during the year.

Above Installation of new power supplies using personal protective equipment.

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer
29 June 2014

Statement of Directors' and Accounting Officer's Responsibility

Section 4(3) of the Atomic Energy Authority Act 1954 requires the United Kingdom Atomic Energy Authority to prepare a statement of accounts for each financial year in the form and on the basis set out in the Accounts Direction. The financial statements are prepared on an accruals basis and must give a true and fair view of the state of affairs of the Authority and of its net resource outturn, application of resources, change in taxpayers' equity and cash flows for the financial year.

In preparing those financial statements, the Accounting Officer is required to comply with the requirements of the Government Financial Reporting Manual and in particular to:

- observe the Accounts Direction issued by HM Treasury, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards as set out in the Government Financial Reporting Manual have been followed, and disclose and explain any material departures in the financial statements; and
- prepare the financial statements on a going concern basis.

The Accounting Officer of the Department for Business, Innovation and Skills (BIS) has appointed the Chief Executive as Accounting Officer of the United Kingdom Atomic Energy Authority. The responsibilities of an Accounting Officer, including responsibility for the propriety and regularity of the public finances for which the Accounting Officer is answerable, for keeping proper records and for safeguarding the Authority's assets, are set out in the Accounting Officers' Memorandum published by HM Treasury.

External audit

The Accounting Officer and Directors confirm that:

- there is no relevant audit information of which the auditors are unaware;
- all relevant steps have been taken to ensure that they are aware of relevant audit information; and
- all steps have been taken to establish that the auditors are aware of the information.

Details of the remuneration of the Group's auditor are set out in Note 8.

Governance Statement

Scope of Responsibility

As Accounting Officer, I have responsibility for maintaining a sound system of governance and internal control that supports the achievement of the United Kingdom Atomic Energy Authority's policies, aims and objectives, whilst safeguarding the public funds and assets for which I am personally responsible, in accordance with the responsibilities assigned to me in Managing Public Money. I am assisted in this across the Authority (UKAEA) Group as a whole by the Director of Finance and Corporate Affairs.

Purpose of the Governance Statement

The Governance Statement, for which I am personally responsible, sets out how I have discharged my responsibility to manage and control UKAEA's resources during the year. It also sets out the governance framework and control structure of UKAEA, its stewardship and corporate governance, and the framework for and effectiveness of the risk management process in place.

The Authority's Governance Framework and Structure

The Board

The United Kingdom Atomic Energy Authority is controlled through its Board of Directors, who are appointed by the Secretary of State for BIS. The Board's main role is to establish UKAEA's vision, mission and values, set strategy and structure, and exercise accountability to UKAEA's stakeholders.

The Board, which met five times during the year, has a schedule of matters reserved for its approval. This includes: establishing the overall strategic direction of UKAEA within the policy and resources framework agreed with the responsible Government Minister; reviewing UKAEA's corporate objectives and goals; approving the annual accounts, budget and corporate plan; reviewing and approving proposals to start new activities or to discontinue existing activities; ensuring that high standards of corporate governance are observed at all times; and reviewing the safety, health, environmental and security performance of UKAEA.

The Board delegates responsibility for day-to-day and business management control to the Chief Executive who is assisted by key senior managers comprising the Executive Committee. The Executive Committee meets monthly. Specific responsibilities delegated to the Executive Committee include: development of UKAEA performance measures; implementation of the strategies and policies as determined by the Board; monitoring of the operating and financial results against plans and budgets; and developing and implementing risk management systems. In addition, the Executive Committee regularly reviews any problems or concerns about closing out actions arising from internal audits, to demonstrate senior management's commitment to closing out these actions. Sub-committees of the Executive regularly review progress on all outstanding audit actions.

The roles of the Chairman and Chief Executive

The division of responsibilities between the Chairman of the Board and the Chief Executive is clearly defined and has been approved by the Board. The Chairman leads the Board in the determination of its strategy and in monitoring the achievement of its objectives.

The Chief Executive has direct charge of UKAEA on a day-to-day basis and is accountable to the Board for the financial and operational performance of UKAEA and its subsidiaries. The Chief Executive is also UKAEA's Accounting Officer and is responsible to Parliament through the Committee of Public Accounts and other Select Committees for the stewardship of resources. His responsibilities are set out in a letter from the BIS Permanent Secretary and the accompanying Accounting Officer Memorandum. The Accounting Officer has a personal responsibility for the propriety and regularity of the public finances for which he is answerable; for the keeping of proper accounts; for prudent and economical administration; for the avoidance of waste and extravagance; and for the efficient and effective use of all available resources. He is also responsible for taking formal action by issuing an Accounting Officer Direction, if the UKAEA Board is contemplating a course that would infringe these requirements. No Directions were issued during the year.

Governance Statement continued

Directors and Directors' independence

During the year, the Board comprised the Chairman, one Executive Director and three independent Non-Executive Directors. The Director of Finance and Corporate Affairs was in attendance as Authority Secretary. The composition of the UKAEA Board is in line with other bodies that report to BIS. A list of Board members and their biographical details is included in the Directors' Report.

The Non-Executive Directors constructively challenge and help develop proposals on strategy, and bring strong, independent judgement, knowledge and experience to the Board's deliberations. The independent Directors are of sufficient calibre and number that their views carry significant weight in the Board's decision making.

The Board considers all its Non-Executive Directors to be independent in character and judgement. No Non-Executive Director:

- has been an employee of UKAEA within the last five years;
- has, or has had within the last three years, a material business relationship with UKAEA or its former or current subsidiaries;
- receives remuneration from UKAEA other than a Director's fee;
- has close family ties with any of UKAEA's advisers, Directors or senior employees;
- holds cross-directorships or has significant links with other Directors through involvement in other companies or bodies; or
- has served on the Board for more than nine years.

Board Committees

Attendance

The number of full Board meetings and committee meetings attended by each Director during the year was as follows:

	Board	Remuneration Committee	Audit Committee
Roger Cashmore	5 (5)	4 (4)	4 (4)
Keith Burnett	2 (5)	3 (4)	2 (4)
Steve Cowley	5 (5)	–	–
Peter Jones	5 (5)	4 (4)	4 (4)
Steve McQuillan	5 (5)	4 (4)	4 (4)

Figures in brackets indicate the maximum number of meetings in the period in which the individual was a Board member.

Remuneration Committee

The Remuneration Committee met four times during the year. All its members are independent Non-Executive Directors. Where necessary, non-committee members are invited to attend.

The Committee's principal responsibility is to make recommendations to BIS on the level of Directors' remuneration. In addition the Committee regularly reviews UKAEA's executive remuneration policy in relation to its competitors and industry norms and contract periods.

During the year, the terms of reference of the Remuneration Committee were reviewed and the scope broadened to advise on any Human Resources policy issue or any proposed change to remuneration arrangements or terms and conditions of UKAEA staff (not just the Chief Executive's direct reports) which would require the agreement of Government.

As the members of the UKAEA Board are appointed by BIS, UKAEA does not maintain a nominations committee.

Audit Committee

The Audit Committee met four times during the year. All its members are independent Non-Executive Directors. During the year, the Committee had at least one member possessing what the Smith Report describes as recent and relevant financial experience (Peter Jones). It will be seen from the Directors' biographical details included in the Directors' Report that the other members of the Committee brought to it a wide range of experience from positions at the highest level in the UK scientific and business community.

Under its terms of reference, the Committee is responsible for: monitoring the effectiveness of the external audit process and approving

the terms of engagement and remuneration of the external auditor; endorsing UKAEA's policy on the provision of non-audit services by the external auditor (none were provided in 2014/15); monitoring and reviewing the effectiveness of the internal audit programme and the implementation of recommendations arising from it; reviewing the actions and judgements of management in relation to annual and other financial statements before submission to the UKAEA Board; reviewing annually the system of internal control and the processes for monitoring and evaluating the risks facing UKAEA; and reviewing UKAEA's procedures for detecting and preventing fraud and its whistleblowing policy.

Other Committees reporting to the Board

During the year, a Culham Programme Advisory Committee was set up and held its first meeting. This Committee, which has an external chairman and membership, all of whom have backgrounds in fusion and industry, was set up to provide expert external scrutiny of UKAEA programmes and strategy, and reports directly to the Board.

The Board Assurance Committee, chaired by one of the non-executive directors, is intended to strengthen Board oversight of assurance matters and met on two occasions in 2014/15. The Committee includes expert external members, in addition to the non-executive chair, to bring independent views on relevant issues. The committee looked at a number of topics including: preparation for future tritium operations, risk / liabilities in regard to the land ownership at Harwell and actions to reduce greenhouse gas losses.

Change of Head of Assurance

A new Head of Assurance joined UKAEA in December 2014. A comprehensive and carefully planned handover from the previous Head of Assurance took place to ensure continuity of advice to me.

Corporate Governance Review Processes

UKAEA's corporate governance arrangements are kept under constant review to ensure that they are compliant with best practice as applicable to the public sector, and with any additional Treasury requirements. In addition, the Board keeps its own performance under review. It made a formal assessment during the year of its compliance with the Corporate Governance Code, and has assessed its own effectiveness. The assessment concluded that UKAEA met the requirements of the Code. No major issues requiring inclusion in the Governance Statement were identified.

Last year I reported that the Board and the Remuneration Committee would be taking further action on capability and succession planning during 2014/15. Significant progress has been made on succession planning, and work on capability has started but requires further review in the light of recent developments within UKAEA reported elsewhere in the Governance Statement.

The Board also reviewed the effectiveness of the Remuneration and Audit Committees during the year, and concluded that both Board committees were operating satisfactorily. Action has been taken to progress some detailed recommendations to improve performance still further. For example, reporting of audit recommendations to the Audit Committee now includes a summary of progress against the agreed Internal Audit plan. The Remuneration Committee conducted a self-assessment audit of its own performance with the outcome that some minor shortcomings were addressed.

Project Boards, with detailed and formal terms of reference, have been set up to oversee the Materials Research Facility and RACE, and meet regularly.

UKAEA's subsidiary, AEA Insurance Ltd, also has appropriate governance arrangements in place. These are formally reviewed and updated as necessary by its Board of Directors, which includes two Directors from UKAEA.

The Group has a 50% interest in a joint venture, Harwell Science and Innovation Campus Public Sector Limited Partnership (HSIC PubSp), the public sector partner in Harwell Science and Innovation Campus Ltd Partnership (HSIC), which is responsible for the development of the Harwell Campus. Both HSIC PubSp and HSIC have appropriate and fully documented governance arrangements in place, covering such matters as membership of and decisions made by their Boards of Directors, appointment and removal of Directors, funding and confidentiality. There is an Authority Director on the Boards of both HSIC PubSp and HSIC.

BIS have set up a Campus Development Public Sector Sponsor Group to agree and provide policy cover for the public sector partner from its sponsor department. Its formal terms of reference include advising Ministers and the BIS Accounting Officer on significant developments and investments and ensuring appropriate approvals are obtained for these.

The Risk and Internal Control Framework

Responsibilities for Managing Risk

The Board has delegated day-to-day responsibility for risk management to the Chief Executive who is responsible for ensuring that a sound system of risk management is in place.

Governance Statement continued

On behalf of the Chief Executive, the Head of Assurance has been appointed to co-ordinate deployment of the risk management arrangements, ensure consistency of approach and periodically report risk to the Executive and Board. Ownership of divisional or functional risk registers is assigned to relevant senior managers and ownership of individual risks is assigned to the most appropriate manager.

UKAEA's Director of Finance and Corporate Affairs is nominated as the Senior Information Risk Owner (SIRO), with special responsibilities for information risks.

The Framework for Managing Risk

A Risk Management Policy and Procedure is in place and the Board formally reviews a statement of the Authority's risk appetite which is embedded within the Authority's risk management arrangements. A further review is planned during 2015 to ensure that changes in UKAEA's business are fully taken into account.

A Corporate Risk Review Group has been appointed to provide oversight of UKAEA's risks. The Corporate and local risk registers are reviewed to ensure robust identification, evaluation and mitigation of key risks.

Effective management of risk and opportunity is essential to the delivery of UKAEA's objectives. The management of risk is linked into the strategy for the business, the environment in which it operates and the delivery of business objectives. The underlying principles are that risk impacts are monitored, associated action plans reviewed, appropriate contingencies for risk are provisioned and this information is reported through established management control procedures.

The Executive Committee considers assurance and performance reports quarterly and the financial report monthly. The Board takes an annual report on key risks and mitigations and regular reports on performance and financial progress.

Information Assurance

Information risks are overseen by an Information Assurance Steering Committee (chaired by the SIRO), which feeds significant risks into the Corporate Risk Review Group. During the year the Information Asset Owners have been provided with additional training, the information asset register has been remodelled and a new procedure on incident management has been developed. There has also been an assessment against Cyber Essential scheme and an internal audit on information security, which will be used to inform improvement in 2015/16.

The SIRO has confirmed that there are no issues relating to information risks or information assurance that require inclusion in the governance statement. There have been no reportable data breaches or data loss incidents during the year.

Key Risks

UKAEA is exposed to a number of key risks which can be grouped into the following areas:

- funding and the development of future programmes and business, including risks associated with the timing of funding from key customers and with the development of additional commercial work;
- recruitment and retention of key skills and capabilities required for the success of the organisation;
- technical, legal and reputational risks; and
- implementation of major projects including MAST upgrade, the RACE building, the MRF building, new transaction management software and Deuterium/Tritium capability.

To further improve the risk framework, a review of risk processes (identification, assessment, mitigation and reporting) will be undertaken in the coming year to ensure robust management oversight and good corporate governance.

During the year the MAST Upgrade project reported that it was unlikely to meet the original timescale for completion in 2015, and that the projected costs had risen above the previously forecast levels. An immediate internal review was set up to understand the issues and their impact and to take measures to bring the project back on track. An external review was also commissioned by the Executive team and carried out by independent international project management experts. The expert review committee recognised the recent progress in the project and made further specific recommendations to improve the project and its management. There has been a complete revision of the project plan and two new project appointments, a new senior project controller and a new financial controller. These new appointments will help ensure that the project meets its milestones and that the Executive team and Board have a direct line of sight into project performance. The project completion date has been moved out to 2016 to ensure delivery and there has been some reduction in scope in other research areas to help fund the project. UKAEA has agreed these measures with both EPSRC and BIS, and I am confident that the new project team will deliver the revised plan

Triennial Review

In July 2014, the Minister of State for Universities, Science and Cities, Department for Business, Innovation and Skills, made a written ministerial statement to Parliament announcing the Triennial Review of UKAEA. This is part of the Government's commitment to review all public bodies, with the aim of increasing accountability for actions carried out on behalf of the state. The statement confirmed that the review was not a review of the policy relating to Fusion research, to which the Government remains committed. The recommendations of the review are still being finalised.

Going Concern

The financial statements have been prepared on a going concern basis. UKAEA relies on funding from the European Commission to finance the operation of the JET programme. The current contract between UKAEA and the Commission for the operation of JET covers a five year period to 31st December 2018. The Board, Executive team and I therefore believe that the commitment of Europe to fusion research is sufficient to support continuing operations for the foreseeable future.

The UK fusion programme is funded by a grant from EPSRC. This is a six year grant awarded from April 2010 to March 2016. During the year EPSRC confirmed that it would extend this by a further year to March 2017.

In addition, UKAEA's Statement of Financial Position includes liabilities of over £256m for site restoration and restructuring costs. Matching reimbursement receivables are recognised for the majority of these liabilities on the basis of assurances from BIS that it continues to accept responsibility in principle for these costs, and provides for them in the BIS departmental resource accounts. These assurances are re-confirmed annually.

Other Matters

UKAEA has robust processes in place to comply with the current austerity measures introduced across the public sector, which aim to reduce expenditure and monitor use of limited public sector resources. Acting on behalf of the Accounting Officer, the Director of Finance and Corporate Affairs reviews and signs off monthly data-sets of accounts payable transactions, with particular emphasis on procurement, travel, events and hospitality.

During the year under review, UKAEA has reviewed the tax arrangements of all its off-payroll appointments. All contractors within the scope of this exercise have been required to provide evidence of tax compliance. All off-payroll appointments are tax compliant as at 31st March 2015. UKAEA also has arrangements in place to ensure that any future off-payroll appointments are fully tax compliant.

Completion of Internal Audit recommendations and actions

The following table summarises progress during the year on completing recommendations and actions arising from Internal Audit reviews:

Carried forward from previous years	8
2014/15 Internal Audit recommendations raised	56
Completed on time	36
Completed later than due date	0
Total actions outstanding but not overdue at 31st March 2015	28

I am pleased to report the considerable progress in closing out internal audit recommendations, with management taking action to complete 36 recommendations within agreed timescales. None of the outstanding actions at 31st March 2015 are overdue.

Governance Statement continued

Review of effectiveness of risk management and internal controls

As Accounting Officer, I have responsibility for reviewing the effectiveness of the systems of risk management and internal control. My review of the effectiveness of these systems is informed by the work of the internal auditors and the senior managers within UKAEA who have responsibility for the development and maintenance of the internal control framework, the SIRO's report on how risks to information are being managed and controlled, and comments made by the external auditors in their management letter and other reports.

UKAEA has an internal audit department which operates in accordance with Public Sector Internal Audit Standards and an Audit Charter approved by the Audit Committee. The work of the internal audit department is determined by analysis of the risks to which UKAEA is exposed. The annual internal audit programme is based on this analysis and additionally includes a 3 year rolling program to test key financial controls. It includes reviews which test and challenge the effectiveness of the management of risks and information.

During the year, a number of improvements to Internal Audit processes were introduced, including improved summary reporting to the Audit Committee and additional measures to monitor progress on audits where external auditing support is engaged.

The Head of Internal Audit provides me, as Accounting Officer, with regular reports on internal audit activity in UKAEA. These reports include an independent opinion on the adequacy and effectiveness of UKAEA's system of risk management and internal control. Internal audits undertaken during the year took into account an assessment of where the highest control risks were and this approach resulted in five audits (just over a third of those completed) receiving a classification of "limited assurance". The Head of Internal Audit has confirmed that there is a generally sound system of risk management and internal control within the UKAEA group and that the adequacy and effectiveness of the control environment has operated to an acceptable standard through the year. This confirmation took into account the risk based approach to the audit plan and the timely completion of high priority audit recommendations.

I have considered the evidence provided to support the annual Governance Statement. My conclusion is that UKAEA's overall governance and internal control structures are generally sound and fit for purpose, but that the impact of recently identified improvements in the assurance of project performance needs to be closely monitored as we move forward.

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer
29 June 2015

Remuneration Report

UKAEA applies the Principles of Good Governance relating to Directors' remuneration to the extent that they are appropriate to the organisation. The principal implementation arrangements are set out below.

Remuneration policy

The remuneration of Directors is set by the Secretary of State for BIS with the approval of HM Treasury in accordance with the Atomic Energy Authority Act 1954. The UKAEA Remuneration Committee makes recommendations to BIS on the overall remuneration package for Executive Directors. The Non-Executive Directors who form the Committee are not involved in decisions relating to their own remuneration.

In reaching its recommendations, the Committee has regard to the following considerations:

- the need to recruit, retain and motivate suitably able and qualified people to exercise their different responsibilities; and
- the funding available to UKAEA.

The Committee takes account of the evidence it receives about wider economic considerations and the affordability of its recommendations.

Service contracts

Executive Directors are appointed by the Secretary of State for BIS. This is normally for a three year term that may be renewed upon expiry in accordance with the guidelines issued by the Commissioner for Public Appointments.

Remuneration and pension entitlements

The individual components of the remuneration packages are:

Salary and fees

The CEO as Executive Director receives a basic salary which is reviewed annually. The Chairman and Non-Executive Directors receive fees for their services. Members of the Executive Committee also receive a basic salary which is reviewed annually.

Benefits

The CEO as Executive Director is entitled to certain benefits under the terms of his service contract. These comprise private health care and relocation assistance. Members of the Executive Committee receive a car allowance.

Executive Directors, and members of the Executive Committee, are also reimbursed for reasonable expenses incurred in line with the policy for UKAEA's employees. These reimbursements are not included in the table below.

Performance related bonuses

The performance bonuses for Executive Directors are calculated in accordance with performance against agreed objectives, confirmed by BIS on the basis of recommendations from the Remuneration Committee. The total bonus is made up of two components: the performance of UKAEA against specific quantified targets, and the performance of the individual against specific targets. Members of the Executive Committee receive bonuses based on formulae that are agreed each year by the Remuneration Committee, and which are subject to approval by BIS where applicable. During 2014/15 the Executive team voluntarily agreed to give up their personal and corporate bonuses for the year owing to the problems with project performance on the MAST upgrade described in the governance statement

Remuneration Report continued

Individual Directors' remuneration for the year is shown in the table below, with salaries disclosed on an accruals basis.

This part of the report is subject to audit.

	Salary/ Fees £	Benefits[2] £	Annual Bonus[3] £	Pension benefit[4] £	2015 Total £
Chairman					
Roger Cashmore	25,000	–	–	–	25,000
Non-Executive Directors					
Keith Burnett	15,000	–	–	–	15,000
Peter Jones	15,000	2,006	–	–	17,006
Stephen McQuillan	15,000	878	–	–	15,878
Executive Directors					
Steve Cowley	205,000	4,051	–	38,355	247,406
Members of the Executive Committee					
Martin Cox	114,119	5,000	–	23,452	142,571
Eric Hollis (to 31st July 2014)[1]	34,333	1,667	–	–	36,000
David Martin	114,000	6,060	–	39,978	160,038
Catherine Pridham[1]	106,667	6,060	–	30,364	143,091
	644,119	25,722	–	132,149	801,990

	Salary/ Fees £	Benefits[2] £	Annual Bonus[3] £	Pension benefit[4] £	2014 Total £
Chairman					
Roger Cashmore	25,000	–	–	–	25,000
Non-Executive Directors					
Keith Burnett	15,000	–	–	–	15,000
Peter Jones	15,000	1,529	–	–	16,529
Stephen McQuillan	15,000	555	–	–	15,555
Executive Directors					
Steve Cowley	205,000	2,312	23,748	34,949	266,009
Martin Cox (to 31st October 2013)	114,119	5,000	12,987	24,192	156,298
Members of the Executive Committee:					
Eric Hollis	103,000	5,000	11,310	–	119,310
David Martin	112,233	6,060	11,986	154,094	284,373
Catherine Pridham	90,762	6,060	11,983	20,393	129,198
	695,114	26,516	72,014	233,628	1,027,272

(1) Catherine Pridham's salary increased from £103,000 to £114,000 with effect from 1st December 2014, when she became Director of Finance and Corporate Affairs. Eric Hollis retired from UKAEA on 31st July 2014. His annual salary was £103,000. In both cases, the remuneration disclosed is on an accruals basis.

(2) Expenses disclosed for the Chairman and Non-Executive Directors in 2015 and in the comparatives for 2014 relate to travel for Board and other meetings and include the tax liability on these expenses which was met by UKAEA.

(3) The Executive Team voluntarily agreed to forego their personal and annual bonuses for 2014/15. Their annual bonuses for 2013/14 after approval of final bonuses were: Steve Cowley - £23,555; Martin Cox £12,884; Eric Hollis £11,217; David Martin £11,913; Catherine Pridham £11,918. The comparatives in the report have not been changed.

(4) The value of pensions benefits accrued during the year is calculated as (the real increase in pension multiplied by 20) plus (the real increase in any lump sum) less (the contributions made by the individual). The real increases exclude increases due to inflation or any increase or decrease due to a transfer of pension rights.

Remuneration ratios

	2014/15 £	2013/2014 £
Highest Paid Director's Total Remuneration	209,051	231,060
Median Total Remuneration	39,219	39,455
Ratio	5.3	5.9

Reporting bodies are required to disclose the relationship between the remuneration of the highest paid director in their organisation and the median remuneration of the organisation's workforce.

The remuneration of the highest paid director in UKAEA in the year 2014/15 was £209,051 (2013/14 - £231,060). This was 5.3 times (2013/14 – 5.9 times) the median remuneration of the workforce, which was £39,219 (2013/14 - £39,455). The ratio was lower in 2014/15 because the Executive team, including the highest-paid Director, did not receive a personal and annual bonus in that year.

No employee received remuneration in excess of the highest-paid Director in either 2014/15 or 2013/14.

Total remuneration includes salary, performance-related pay and benefits in kind. It does not include pensions benefit, employer pension contributions and the cash equivalent transfer value of pensions.

Pension entitlements

Executive Directors and members of the Executive Committee are members of the United Kingdom Atomic Energy Authority Combined Pension Scheme that pays an annual pension based on pensionable final earnings together with a lump sum at normal retirement age. Benefits are also payable in the event of death or ill health retirement. UKAEA also operates an unfunded pension arrangement for three former Chief Executives to take account of pensionable pay above the earnings cap introduced by the Finance Act 1989.

Further details of the pension schemes and unfunded pensions can be found at Note 22 to the accounts.

The pension entitlements shown in the table below (which is subject to audit) are those that would be paid annually on retirement based on service to 31 March 2015 and include the value of added years paid for by Directors.

	Accrued Pension 2014 £	Lump sum 2014 £	Increase in accrued pension £	Increase in lump sum £	Accrued Pension 2015 £	Lump Sum 2015 £
Executive Directors						
Steve Cowley	10,272	30,816	2,170	6,511	12,442	37,327
Members of the Executive Committee						
Martin Cox	49,014	147,043	1,427	4,280	50,441	151,323
Eric Hollis [1]	51,500	154,500	–	–	51,500	154,500
David Martin	47,497	142,490	2,144	6,434	49,641	148,924
Catherine Pridham	2,091	6,272	1,700	5,101	3,791	11,373
	160,374	481,121	7,441	22,326	167,815	503,447

[1] The accrued pension and lump sum disclosed for Eric Hollis were as at the date of his retirement from UKAEA in July 2014.

Remuneration Report continued

The following table (which is subject to audit) sets out the Cash Equivalent Transfer Value (CETV) of the Executive Directors' and Executive Committee members' accrued pension entitlements which have been calculated by the Scheme managers in accordance with the Occupational Pension Schemes (Transfer Values) Regulations 1996 as amended, having taken actuarial advice. The transfer values do not represent sums paid or payable to the Directors or Executive Committee members but represent a potential liability of the pension scheme or UKAEA.

	Transfer Value 2014[1] £	Directors' contributions £	Increase net of contributions £	Transfer Value 2015 £
Steve Cowley	216,256	11,562	34,128	261,946
Members of the Executive Committee				
Martin Cox	1,109,823	9,358	23,359	1,142,540
Eric Hollis [2]	1,091,511	–	–	1,091,511
David Martin	987,363	9,348	35,711	1,032,422
Catherine Pridham	35,776	8,747	20,353	64,876
	3,440,729	39,015	113,551	3,593,295

[1] The actuarial factors used to calculate CETVs changed in 2014/15. The CETVs at 31/3/14 and 31/3/15 have both been calculated using the new factors, for consistency. The CETV at 31/3/14 therefore differs from the corresponding figure in last year's report, which was calculated using the previous factors.

[2] The transfer value disclosed for Eric Hollis was as at the date of his retirement from UKAEA in July 2014

Members of the pension scheme have the option to pay Additional Voluntary Contributions; neither the contributions nor the resulting benefits are included in the above tables.

On behalf of the Board

Professor Sir Keith Burnett, CBE, FRS
Chairman of Remuneration Committee
29 June 2014

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer
29 June 2014

The Certificate and Report of the Comptroller and Auditor General to the Houses of Parliament

I certify that I have audited the financial statements of the United Kingdom Atomic Energy Authority for the year ended 31 March 2015 under the Atomic Energy Authority Act 1954. The financial statements comprise: the Group and Authority Statements of Comprehensive Income, Financial Position, Cash Flows, Changes in Taxpayers' Equity; and the related notes. These financial statements have been prepared under the accounting policies set out within them. I have also audited the information in the Remuneration Report that is described in that report as having been audited.

Respective responsibilities of the Board, Accounting Officer and auditor

As explained more fully in the Statement of Directors' and Accounting Officer's Responsibilities, the Board and the Accounting Officer are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. My responsibility is to audit, certify and report on the financial statements in accordance with the Atomic Energy Authority Act 1954. I conducted my audit in accordance with International Standards on Auditing (UK and Ireland). Those standards require me and my staff to comply with the Auditing Practices Board's Ethical Standards for Auditors.

Scope of the audit of the financial statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the United Kingdom Atomic Energy Authority's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the United Kingdom Atomic Energy Authority; and the overall presentation of the financial statements. In addition I read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by me in the course of performing the audit. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my certificate.

I am required to obtain evidence sufficient to give reasonable assurance that the expenditure and income recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Opinion on regularity

In my opinion, in all material respects the expenditure and income recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

Opinion on financial statements

In my opinion:

- the financial statements give a true and fair view of the state of the group's and of the United Kingdom Atomic Energy Authority's affairs as at 31 March 2015 and of the group's and the parent's net income for the year then ended; and

- the financial statements have been properly prepared in accordance with the Atomic Energy Authority Act 1954 and Secretary of State directions issued thereunder.

Opinion on other matters

In my opinion:

- the part of the Remuneration Report to be audited has been properly prepared in accordance with Secretary of State directions made under the Atomic Energy Authority Act 1954; and
- the information given in the Strategic and Directors' Reports elements of the Annual Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

Matters on which I report by exception

I have nothing to report in respect of the following matters which I report to you if, in my opinion:

- adequate accounting records have not been kept or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- I have not received all of the information and explanations I require for my audit; or
- the Governance Statement does not reflect compliance with HM Treasury's guidance.

Report

I have no observations to make on these financial statements.

Sir Amyas C E Morse
Comptroller and Auditor General
National Audit Office
157-197 Buckingham Palace Road
Victoria, London, SW1W 9SP 2 July 2015

Consolidated Statement of Comprehensive Income

for the year ended 31 March 2015

	Note	Group 2015 £k	Group 2014 £k	Authority 2015 £k	Authority 2014 £k
Income					
Revenue	5	100,374	99,062	99,812	98,467
Other income		1,367	190	1,895	1,669
Share of revenue of joint venture		(487)	(461)	–	–
		101,254	**98,791**	**101,707**	**100,136**
Expenditure					
Raw materials and consumables		23,007	18,019	23,007	18,019
Other external expense		23,164	19,954	23,164	19,954
Staff costs	6	56,226	49,826	56,226	49,826
Depreciation, amortisation and impairment		795	570	795	570
Other expense		4,531	10,836	1,074	10,993
		107,723	99,205	104,266	99,362
Revaluation credit		(5,694)	(8,187)	(5,694)	(8,187)
Costs capitalised		(3,201)	(738)	(3,201)	(738)
		98,828	**90,280**	**95,371**	**90,437**
Operating profit		**2,426**	**8,511**	**6,336**	**9,699**
Finance Income	9	216	284	103	135
Finance expense	9	9	(184)	9	(184)
Share of loss of joint venture after tax	14	21	(132)	–	–
Profit before tax		**2,672**	**8,479**	**6,448**	**9,650**
Income tax credit (debit)	11	(1,490)	(798)	(1,490)	(798)
Profit for the year		**1,182**	**7,681**	**4,958**	**8,852**
Other comprehensive income					
Net gain (loss) on revaluations		6,050	1,088	3,986	252
Actuarial gains (losses) on defined benefit pension plans		(129)	(162)	(129)	(162)
Income tax (debit)/credit relating to components of other comprehensive income		(797)	339	(797)	339
Other comprehensive income for the year		5,124	1,265	3,060	429
Total comprehensive income for the year ended 31/3/2015		**6,306**	**8,946**	**8,018**	**9,281**

The notes on pages 49 to 73 are an integral part of these financial statements.

Consolidated Statement of Financial Position

as at 31 March 2015

	Note	Group 2015 £k	Group 2014 £k	Authority 2015 £k	Authority 2014 £k
Non-current assets					
Property, plant and equipment	12	22,335	22,587	22,335	22,587
Investment property	13	60,208	47,505	60,208	47,505
Financial assets	14	13,064	10,980	13,523	13,523
Other receivables	16	265,552	253,413	265,552	253,413
Total non-current assets		361,159	334,485	361,618	337,028
Current assets					
Inventories		8	27	8	27
Trade and other receivables	16	13,489	23,996	14,005	24,367
Financial assets	14	9,718	8,574	1,052	–
Cash and cash equivalents	17	27,479	30,319	24,412	26,829
Total current assets		50,694	62,916	39,477	51,223
Total assets		**411,853**	**397,401**	**401,095**	**388,251**
Current Liabilities					
Trade and other payables	18	18,156	28,918	18,145	28,906
Provisions for liabilities and charges	21	8,150	6,680	7,077	5,846
Total current liabilities		26,306	35,598	25,222	34,752
Non-current assets plus net current assets		**385,547**	**361,803**	**375,873**	**353,499**
Non-current liabilities					
Other payables	18	305	94	305	94
Deferred income	19	3,314	2,030	3,314	2,030
Deferred income tax liabilities	20	11,659	9,372	11,659	9,372
Provisions for liabilities and charges	21	279,694	267,591	276,382	267,361
Total non-current liabilities		294,972	279,087	291,660	278,857
Assets less liabilities		**90,575**	**82,716**	**84,213**	**74,642**
Taxpayers' equity					
General reserve		13,658	13,658	13,658	13,658
Revaluation reserve		12,042	9,074	12,042	9,074
Retained earnings		64,875	59,984	58,513	51,910
		90,575	**82,716**	**84,213**	**74,642**

The notes on pages 49 to 73 are an integral part of these financial statements.
The Financial Statements on pages 45 to 73 were approved by the Board on 29th June 2015 and were signed on its behalf by:

Professor Steve Cowley, FRS, FREng
Chief Executive and Accounting Officer

Catherine Pridham, ACA
Director of Finance
and Corporate Affairs

Consolidated Statement of Cash Flows

for the year ended 31 March 2015

	Note	Group 2015 £k	Group 2014 £k	Authority 2015 £k	Authority 2014 £k
Cash flows from operating activities					
Profit for the year		1,182	7,681	4,958	8,852
Adjustments for non-cash transactions:					
– Depreciation, amortisation, and impairment		795	570	795	570
– Deferred income released	19	(170)	(160)	(170)	(160)
– Change in fair value of investment property	13	(5,694)	(8,187)	(5,694)	(8,187)
– Net finance income recognised		(225)	(100)	(112)	49
– Income tax debit (credit)		1,490	798	1,490	798
– Income relating to financial asset recognised		(1,052)	–	(1,052)	–
– Share of loss (profit) of joint venture		(21)	132	–	–
Changes in working capital:					
– (Increase)/Decrease in trade and other receivables	14	11,040	(9,781)	10,895	(10,106)
– (Increase)/Decrease in inventories		19	(1)	19	(1)
– (Increase)/Decrease in current financial assets		(92)	1,131	–	–
– Increase/(Decrease) in trade and other payables		(9,097)	(8,440)	(9,096)	(8,442)
– Use of provisions		781	9,140	(2,541)	9,600
Net cash inflow (outflow) from operating activities		**(1,044)**	**(7,217)**	**(508)**	**(7,027)**
Cash flows from investing activities					
Purchase of property, plant and equipment	12	(3,565)	(1,223)	(3,565)	(1,223)
Investment in joint venture		–	(474)	–	(474)
Interest received		216	284	103	135
Net cash inflow (outflow) from investing activities		**(3,349)**	**(1,413)**	**(3,462)**	**(1,562)**
Cash flows from financing activities					
Capital grant from sponsoring department		1,553	–	1,553	–
Net Financing		1,553	–	1,553	–
Net increase/(decrease) in cash and cash equivalents in the period		(2,840)	(8,630)	(2,417)	(8,589)
Cash and cash equivalents at the beginning of the period		30,319	38,949	26,829	35,418
Cash and cash equivalents at the end of the period		**27,479**	**30,319**	**24,412**	**26,829**

The notes on pages 49 to 73 are an integral part of these financial statements.

Consolidated Statement of Changes in Taxpayers' Equity

for the year ended 31 March 2015

Group	General reserve £k	Revaluation reserve £k	Retained earnings £k	Total £k
Balance at 1 April 2013	13,658	8,758	51,354	73,770
Changes in Taxpayers' Equity 2013/14				
Capital Grant from sponsoring department	–	–	–	–
Total comprehensive income for the year	–	591	8,355	8,946
Depreciation transfer	–	(275)	275	–
Balance at 31 March 2014	**13,658**	**9,074**	**59,984**	**82,716**
Changes in Taxpayers' Equity 2014/2015				
Capital Grant from sponsoring department	–	–	1,553	1,553
Total comprehensive income for the year	–	3,189	3,117	6,306
Depreciation transfer	–	(221)	221	–
Balance at 31 March 2015	**13,658**	**12,042**	**64,875**	**90,575**

Authority	General reserve £k	Revaluation reserve £k	Retained earnings £k	Total £k
Balance at 1 April 2013	13,658	8,758	42,945	65,361
Changes in Taxpayers' Equity 2013/2014				
Capital grant from sponsoring department	–	–	–	–
Total comprehensive income for the year	–	591	8,690	9,281
Depreciation transfer	–	(275)	275	–
Balance at 31 March 2014	**13,658**	**9,074**	**51,910**	**74,642**
Changes in Taxpayers' Equity 2014/15				
Capital grant from sponsoring department	–	–	1,553	1,553
Total comprehensive income for the year	–	3,189	4,829	8,018
Depreciation transfer	–	(221)	221	–
Balance at 31 March 2015	**13,658**	**12,042**	**58,513**	**84,213**

Notes to the Financial Statements

1 General information

UKAEA is an NDPB and was established by the Atomic Energy Authority Act 1954. The address of UKAEA's registered office is Culham Science Centre, Abingdon, Oxfordshire, OX14 3DB. Its sponsoring government department is the Department for Business, Innovation and Skills. UKAEA and its subsidiaries are referred to as "the Group".

The Accounting Officer authorised these financial statements for issue on 2 July 2015.

2 Basis of preparation

The financial statements comply with the provisions of the Atomic Energy Authority Act 1954 and the Accounts Direction issued by HM Treasury. The latter requires the financial statements to be prepared in accordance with the Government Financial Reporting Manual (FReM) issued by HM Treasury as updated annually. The accounting policies contained in the FreM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector. Where the FReM permits a choice of accounting policy, the accounting policy which is judged to be most appropriate to the particular circumstances of the Group for the purpose of giving a true and fair view has been selected.

The financial statements have been prepared on a going concern basis. UKAEA relies on funding from the European Commission to finance the operation of the JET programme. A new contract between UKAEA and the Commission for the operation of JET was signed in June 2014 and backdated to 1 January 2014, covering a five year period to 31st December 2018. The Directors therefore believe that the commitment of Europe to fusion research evidenced by the contract, and the acceptance by BIS of responsibility for costs associated with UKAEA site restoration and restructuring liabilities, are sufficient to support continuing operations for the foreseeable future.

The financial statements are presented in pounds sterling, which is UKAEA's functional currency, and have been prepared under the historical cost convention, except for land and buildings, investment properties, assets held-for-sale and derivative financial instruments which are stated at fair value.

The preparation of financial statements in conformity with IFRS requires judgements, estimates and assumptions to be made that affect the application of accounting policies and the reported amounts of income, expenses, assets and liabilities. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected. Information about significant areas of estimation uncertainty and critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the consolidated financial statements is included in the notes to the financial statements.

3 Significant accounting policies

The principal accounting policies applied by UKAEA in the preparation of these financial statements are set out below. These policies have been applied consistently in dealing with all items that are considered material to the financial statements.

3.1 Consolidation

(a) Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from activities and actually exercises this power. In assessing control, potential voting rights that are currently exercisable are taken into account. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. The accounting policies of subsidiaries are changed when necessary to align them with the policies adopted by the Group.

(b) Joint ventures

Joint ventures are those entities over which the Group exercises joint control through a contractual arrangement. The results, assets and liabilities of joint ventures are incorporated in the consolidated financial statements using the equity method of accounting. Investments in joint ventures are initially carried in the statement of financial position at cost and subsequently adjusted by post-acquisition changes in the Group's share of the net assets of the joint venture, less any impairment in the value of individual investments. Losses of joint ventures in excess of the Group's interest in those joint ventures are not recognised, except where the Group has made a commitment to make good those losses.

(c) Transactions eliminated on consolidation

Inter-group transactions, balances and unrealised gains and losses on transactions between Group companies are eliminated on consolidation.

3.2 Revenue recognition

Revenue is recognised when the amount can be reliably measured, it is probable that future economic benefits will be received and when specific criteria have been met as described below. The amount of revenue is not considered to be reliably measurable until all contingencies relating to the sale have been resolved. Revenue is shown net of value added tax, returns, rebates and discounts.

(a) Service contracts

Revenue from cost recovery contracts for managing the UK's fusion research programme and the European Union's JET facility is recognised to the extent of costs incurred in the period that are expected to be recoverable from customers.

Revenue from other service contracts is recognised under the percentage-of-completion method. Revenue is generally recognised based on the services performed to date as a percentage of the total services to be performed. If circumstances arise that may change the original estimates of revenues, costs or extent of progress toward completion, estimates are revised. These revisions may result in increases or decreases in estimated revenues or costs and are reflected in income in the period in which the circumstances that give rise to the revision become known.

(b) Rental income

Rental income from investment properties is recognised in the statement of comprehensive income on a straight-line basis over the term of the lease. Lease incentives granted are recognised as an integral part of the total rental income over the term of the lease.

(c) Grant-in-aid

Grant-in-aid relating to revenue expenditure is recognised in the statement of comprehensive income in the same period as the related expenditure that it is intended to fund.

This departure from the specified treatment in the FReM has been agreed with HM Treasury.

Capital grants from UKAEA's sponsoring department are recognised as financing and credited to reserves in line with the FReM.

3.3 Research expenditure

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in the statement of comprehensive income when incurred.

3.4 Employee benefits

(a) Short-term employee benefits

Short-term employee benefits are recognised in the year in which the related service is provided. A liability is recognised for the amount expected to be paid under short-term bonus arrangements if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by employees and the obligation can be estimated reliably.

(b) Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the reporting date are discounted to their present value.

(c) Retirement benefits

Obligations for contributions to defined contribution schemes are recognised as an expense when they are due. The Group has no further payment obligations once the contributions have been paid.

The Group operates three defined benefit schemes for the benefit of its employees. Two of these are closed to new members. The schemes are unfunded multi-employer defined benefit schemes. In accordance with the FReM, these schemes are accounted for as defined contribution schemes in these financial statements and the obligations recognised are limited to the contributions due.

The Group also has a separate liability in respect of unfunded retirement benefits relating to three individuals. The liability recognised in the statement of financial position is the present value of the defined benefit obligation at the reporting date, together with adjustments for unrecognised past-service costs. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future

cash outflows using a real rate of interest set by HM Treasury. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in the period in which they arise.

3.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the UKAEA Board.

3.6 Foreign currency translation

Transactions in foreign currencies are translated to the functional currency of the Group using the exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency using the exchange rates at that date. Foreign exchange gains and losses resulting from the settlement of transactions and from the translation of monetary assets and liabilities are recognised in the statement of comprehensive income except when deferred in taxpayers' equity as qualifying cash flow hedges.

3.7 Property, plant and equipment

Land and buildings are occupied by the Group and are shown at fair value, based on periodic, but at least quinquennnial, valuations by external independent valuers, less subsequent depreciation for buildings. In the intervening years, these valuations may be updated by the Group with the assistance of independent advice as required. Fair value is based on market values for existing use as there are no alternative uses for the land and buildings. A valuation of all the properties was carried out in February 2015.

Increases in the carrying amount arising on revaluation of land and buildings are credited to the revaluation reserve. Decreases that offset previous increases of the same asset are charged against the revaluation reserve; all other decreases are charged to the statement of comprehensive income. Each year the difference between depreciation based on the revalued carrying amount of the asset charged to the income statement and depreciation based on the asset's original cost is transferred from the revaluation reserve to retained earnings.

In accordance with the FReM, other classes of property, plant and equipment with short useful lives or low book values are stated at historical cost less depreciation as a proxy for current valuations. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the statement of comprehensive income during the financial period in which they are incurred.

Land is not depreciated. Assets under construction are not depreciated until they are in use. Depreciation on other assets is calculated using the straight-line method to allocate their cost or revalued amounts to their residual values over their estimated useful lives, as follows:

- Buildings — up to 40 years
- Plant, machinery and equipment — up to 10 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each reporting date.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 3.11).

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and any amounts to be released from deferred income on disposal and are recognised in the statement of comprehensive income. When revalued assets are sold, any amounts included in the revaluation reserve are transferred to retained earnings.

3.8 Investment property

Investment property, comprising freehold land and buildings, is held either for rental yields or capital appreciation and is not occupied by the Group. Investment property is carried at fair value, representing open market value determined annually by external independent valuers.

Fair value is based on active market prices, adjusted, if necessary, for any difference in the nature, location or condition of the specific asset. In the absence of current prices in an active market, the valuations are prepared by considering the aggregate of the estimated cash flows expected to be received from renting out the property. Valuations reflect the allocation of maintenance and insurance responsibilities between the Group and the lessee and the remaining economic life of the property.

Changes in fair values are recognised in the statement of comprehensive income.

3.9 Intangible assets

Intangible assets comprise acquired computer software licences and are stated at cost, net of amortisation and any provision for impairment. The cost of intangible assets, less estimated residual value, is amortised on a straight line basis over their estimated useful lives of up to five years.

3.10 Non-current assets held for sale

Non-current assets are classified as assets held for sale when their carrying amount is to be recovered principally through a sale transaction and a sale is considered highly probable. They are stated at the lower of carrying amount and fair value less costs to sell if their carrying amount is to be recovered principally through a sale transaction rather than through continuing use.

3.11 Impairment of non-financial assets

Assets that are subject to depreciation or amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows. Non-financial assets that suffered impairment are reviewed for possible reversal of the impairment at each reporting date.

3.12 Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first-in, first-out method. The cost of work in progress comprises raw materials, direct labour, other direct costs and related production overheads. Net realisable value is the estimated selling price in the ordinary course of business, less applicable selling expenses.

3.13 Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less.

3.14 Current and deferred income tax

The tax credit for the period comprises current and deferred tax. Tax is recognised in the income statement, except to the extent that it relates to items recognised directly in equity. In this case, the tax is also recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the reporting date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

3.15 Provisions

Provisions are recognised when: the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using real rates of interest. The increase in the provision due to passage of time is recognised as finance expense.

Where assurances have been received from another party that they will reimburse some or all of the expenditure required to settle a provision, a reimbursement asset will be recognised to the extent of the amount expected to be reimbursed. The reimbursement asset is shown separately from the related provision in the statement of financial position.

3.16 Financial instruments

(a) Non-derivative financial instruments

Non-derivative financial instruments comprise trade and other receivables, investments, cash and cash equivalents and trade and other payables and are recognised initially at fair value. Subsequent to initial recognition, non-derivative financial instruments are measured as described below.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets, except for maturities greater than 12 months after the reporting date which are classified as non-current assets. The carrying values, less impairment provision, of loans and receivables are assumed to approximate their fair values.

Other financial liabilities are non-derivative financial instruments with fixed or determinable payments that are not quoted in an active market. They are included in current liabilities, except for maturities greater than 12 months after the reporting date which are classified as non-current liabilities. The carrying values of other financial liabilities are assumed to approximate their fair values.

(b) Derivative financial instruments

Derivative financial instruments comprise financial instruments held to hedge foreign currency risk exposures and embedded derivatives in host contracts. Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument.

Financial instruments held to hedge foreign currency risk exposures are designated as cash flow hedges if the criteria for applying hedge accounting under IAS 39 are met. The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in equity. The gain or loss relating to the ineffective portion is recognised immediately in the statement of comprehensive income. Amounts accumulated in equity are recycled in the statement of comprehensive income in the periods when the hedged item affects profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the statement of comprehensive income. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the statement of comprehensive income.

If the criteria for applying hedge accounting are not met, the gain or loss on derivative financial instruments is credited or charged to the statement of comprehensive income instead of being deferred in equity.

Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related. Changes in the fair value of separable embedded derivatives are recognised immediately in the statement of comprehensive income.

3.17 Operating leases

Payments made under operating leases are recognised in the statement of comprehensive income on a straight-line basis over the term of the lease. Lease incentives are recognised as an integral part of the total lease expense over the term of the lease.

3.18 New and Amended Accounting Standards

Certain new standards, amendments and interpretations to existing standards have been published but are not effective on UKAEA's accounting period.

The following new standards, amendments and interpretation to existing standards are not yet effective or are not yet effective in HMT's 2014/15 FReM and have not been early adopted by the Authority:

IAS 36 – Impairment of assets on recoverable amount disclosures (amendment) – effective date 1 January 2014 (EU adopted)
IFRS 9 – Financial Instruments (new)- effective date 1 January 2018 (not yet EU adopted)
IFRS 13 – Fair Value Measurement (new) – effective date 1 January 2013 (EU adopted)
IFRS 15 – Revenue from Contracts with Customers (IAS 19 replacement – Revenue Recognition) – effective date 1 January 2017 (not yet EU adopted)

The Board anticipate that the adoption of these standards and interpretations in future periods will have no material impact on the financial statements of the Authority.

Notes to the Financial Statements

4 Financial Risk Management

Due to the nature of its activities, the Group is not exposed to the same degree of financial risk faced by other business entities. Financial instruments play a much more limited role in creating or changing risk and generally financial assets and liabilities are generated from day-to-day operational activities and not held to change the risks facing the Group in undertaking its activities. While the Group has significant financial liabilities relating to decommissioning and restructuring, most of the risks attached to these liabilities do not rest with the Group as they are broadly matched by reimbursement assets.

(a) Foreign exchange risk

Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the Group's functional currency. The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the euro. To manage foreign exchange risk, the Group may use forward contracts for the purchase or sale of foreign currencies.

(b) Interest rate risk

As the Group has no borrowings or significant interest-bearing assets, the Group's income and operating cash flows are substantially independent of changes in market interest rates. Cash balances on deposit are held in highly rated fixed term deposits and the exposure to interest rate risk is minimal and appropriately managed.

(c) Credit risk

The Group's income is received primarily from public sector bodies in the UK and Europe and the exposure to credit risk is therefore considered to be low.

(d) Liquidity risk

The Group is primarily financed by income from other public sector bodies, in the UK and in Europe. Uncertainties about the timing and amount of some of this income, particularly income from Europe, expose the Group to liquidity risk. The Group has a facility to request temporary working capital funding from the Department for Business, Innovation and Skills should the need arise.

5 Segment information

As the majority of the Group's activities do not represent the provision of public services, segment information in accordance with IFRS 8 is included in these financial statements and the fees and charges analysis required by the FReM is not disclosed.

5.1 Reportable segments

The Group has two reportable segments, as described below, which are the Group's main business areas reported to the Authority Board. The business areas offer different services and are managed separately because they require different strategies and have different funding streams.

The following summary describes the operations in each of the Group's reportable segments:

(a) Fusion research – research into using fusion to create a new source of energy that is safe and environmentally benign

(b) Property management – management and development of the Culham and Harwell campuses for future scientific use.

Other segments include grant-in-aid funding and insurance. None of these segments meets any of the quantitative thresholds for determining reportable segments in 2015 or 2014. The results of these segments are included in the "other" column in the segmental analyses below.

The segment information for the reportable segments for the years ended 31 March 2015 and 31 March 2014 is as follows:

	Fusion research £k	Property management £k	Other £k	Total £k
Year ended 31 March 2015				
External segment revenue	91,744	4,835	3,795	100,374
Less: share of revenue of joint venture	–	(487)	–	(487)
Other income	169	–	1,198	1,367
Expenditure	(92,634)	(4,513)	(7,375)	(104,522)
Investment property revaluation	–	5,694	–	5,694
Operating profit/(loss)	(721)	5,529	(2,382)	2,426
Finance income	103	–	113	216
Finance expense	–	–	9	9
Share of profits of joint venture	–	21	–	21
Profit/(loss) before income tax	(618)	5,550	(2,260)	2,672
Year ended 31 March 2014				
External segment revenue	90,022	4,259	4,781	99,062
Less: share of revenue of joint venture	–	(461)	–	(461)
Other income	190	–	–	190
Expenditure	(90,212)	(3,798)	(4,457)	(98,467)
Investment property revaluation	–	8,187	–	8,187
Operating profit/(loss)	–	8,187	324	8,511
Finance income	135	–	149	284
Finance expense	–	–	(184)	(184)
Share of profits (loss) of joint venture	–	(132)	–	(132)
Profit/(loss) before income tax	135	8,055	289	8,479

Revenue from external parties is measured in a manner consistent with that in the statement of comprehensive income.

Notes to the Financial Statements

5.2 Reconciliation between Reportable Segments and Statement of Comprehensive Income

	2015 £k	2014 £k
Revenues		
Total revenue for reportable segments	96,579	94,281
Other revenue	3,795	4,781
Consolidated revenue per Statement of Comprehensive Income	**100,374**	**99,062**
Profit or loss		
Total profit or loss for reportable segments	4,932	8,190
Other profit or loss	(2,260)	289
Consolidated profit before income tax per Statement of Comprehensive Income	**2,672**	**8,479**

5.3 Geographical segments

In presenting information on the basis of geographical segments, segment revenue is based on the geographical location of customers.

Group	Revenue	
	2015 £k	2014 £k
United Kingdom	39,097	37,195
Europe	61,116	61,780
Rest of the world	161	87
	100,374	**99,062**

5.4 Revenue from major customers

	2015 £k	2014 £k
European Commission	60,738	60,555

Revenue from the European Commission is attributable to the fusion research segment.

6 Staff Numbers and Related Costs

Staff costs comprise:

	2015 £k	2014 £k
Permanently employed staff:		
Salaries, bonuses and allowances	28,723	25,419
Social security costs	2,618	2,336
Pension costs – defined contribution plans (see Note 22a)	3,960	3,563
	35,301	31,318
Other staff	20,925	18,508
	56,226	**49,826**

The average number of full-time equivalent staff during the year was as follows:

	2015	2014
Directly employed	647	585
Other staff	443	413
	1,090	**998**

Exit packages paid to employees

Exit package cost band	Number of compulsory redundancies		Number of other departures agreed		Total number of exit packages by cost band	
	2014/15	2013/14	2014/15	2013/14	2014/15	2013/14
< £10,000	–	–	1	(1)	1	(1)
£10,000 - £25,000	1	–	2	(1)	3	(1)
£25,000 - £50,000	1	–	1	–	2	–
£50,000 - £100,000	1	–	5	–	6	–
£100,000 - £150,000	–	–	1	–	1	–
£150,000 - £200,000	–	–	–	(1)	–	(1)
£200,000 - £250,000	–	–	–	–	–	–
£250,000 - £300,000	–	–	–	–	–	–
£300,000 - £350,000	–	–	–	–	–	–
£350,000 - £400,000	–	–	–	–	–	–
£400,000 - £450,000	–	–	–	–	–	–
£450,000 - £500,000	–	–	–	–	–	–
Total number of exit packages	3	–	10	(3)	13	(3)
Total resource cost £	147,395	–	599,017	(172,927)	746,412	(172,927)

The departure costs disclosed above relate to early release costs which are within the terms set out in UKAEA's Conditions of Employment Manual. Where applicable, the additional costs of early releases are met by UKAEA and not by UKAEA's Combined Pension Scheme (CPS). Ill-health retirement costs are met by the CPS and are not included in the table.

Notes to the Financial Statements

7 Operating profit

Operating profit has been arrived at after charging/(crediting):

	2015 £k	2014 £k
Change in fair value of investment property	(5,694)	(8,187)
Net foreign exchange losses (gains)	276	128
Operating lease rentals – plant and machinery	173	157
Non-cash items:		
– Depreciation	795	565
– Amortisation	–	5

8 Auditor's remuneration

The total remuneration of the Group's auditor, National Audit Office, for services provided to the Group was:

	2015 £k	2014 £k
Audit fees		
UKAEA	49	50
UKAEA pension schemes	23	23
	72	73
Other services	–	–
	72	**73**

The 2014 comparative for the UKAEA audit has been amended to reflect the actual fee charged.

9 Finance income and expense

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Income				
Interest on term bank deposits	216	284	103	135
Expense				
Revalorisation of provisions:				
– Roll forward of discount rate schedule and unwinding of discount	10,021	5,366	10,021	5,366
– Escalation of reimbursement receivables (Note 21)	(10,112)	(5,253)	(10,112)	(5,253)
Interest on unfunded retirement benefits	82	71	82	71
	(9)	**184**	**(9)**	**184**

The net credit against finance expense relates to the unwinding of the discount on UKAEA's operational waste provision, which was a credit in 2014/15.

10 Analysis of Net Expenditure by Programme and Administration Budget

	2015 Programme £k	2015 Admin £k	2015 Total £k	2014 Programme £k	2014 Admin £k	2014 Total £k
Income						
Income from activities	95,857	4,517	100,374	94,346	4,716	99,062
Other income	1,367	–	1,367	190	–	190
Interest receivable	216	–	216	284	–	284
Share of revenue of Joint Venture	(487)	–	(487)	(461)	–	(461)
Share of profit(loss) of joint venture	21	–	21	(132)	–	(132)
	96,974	4,517	101,491	94,227	4,716	98,943
Expenditure						
Raw Materials and Consumables	22,871	136	23,007	17,889	130	18,019
Other External Expense net of costs capitalised	19,195	768	19,963	18,310	906	19,216
Staff costs	52,554	3,672	56,226	46,180	3,646	49,826
Other expense	4,330	201	4,531	10,596	240	10,836
Revaluation credit	(5,694)	–	(5,694)	(8,187)	–	(8,187)
Non-cash items:						
–Depreciation	791	4	795	561	4	565
–Amortisation	–	–	–	5	–	5
Finance expense	(9)	–	(9)	184	–	184
	94,038	4,781	98,819	85,538	4,926	90,464
Net Expenditure after Interest and before tax	**(2,936)**	**264**	**(2,672)**	**(8,689)**	**210**	**(8,479)**

Notes to the Financial Statements

11 Income tax (expense)/credit

	Group and Authority	
	2015 £k	2014 £k
Current tax		
Current tax credit (debit)	–	–
Deferred tax		
Origination and reversal of temporary differences	(1,490)	(798)
Income tax credit (debit)	**(1,490)**	**(798)**
Share of income tax of joint venture	–	–
Total income tax (expense)/credit	**(1,490)**	**(798)**

The current tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated entities as follows:

	2015 £k	2014 £k
Profit for the year	1,182	7,681
Income tax expense/(credit)	1,490	798
Profit excluding income tax	2,672	8,479
Tax calculated at the standard UK corporation tax rate of 21% (2014 – 23%)	561	1,950
Tax effects of:		
– Reversal of timing differences	131	(10)
– Expenses not deductible	(1,171)	357
– Enhanced relief for research and development expenditure	(314)	(2,567)
– Tax losses for which no deferred income tax asset was recognised	793	270
Current tax expense (credit) for the year	**–**	**–**

The income tax charged/(credited) to equity during the year is as follows:

	2015 £k	2014 £k
Fair value gains on property, plant and equipment	797	(339)

12 Property, plant and equipment

Group and Authority	Land £k	Buildings £k	Plant and equipment £k	Assets under construction £k	Total £k
Cost or valuation					
At 1 April 2013	6,942	7,586	4,662	7,473	26,663
Additions	–	-	485	738	1,223
Disposals	–	–	(297)	–	(297)
Revaluation	10	242	–	–	252
At 31 March 2014	**6,952**	**7,828**	**4,850**	**8,211**	**27,841**
Additions	–	–	81	3,484	3,565
Disposals	–	–	–	–	–
Revaluation	3,651	335	–	–	3,986
Transfer from/(to) investment property	–	457	–	(7,474)	(7,017)
At 31 March 2015	**10,603**	**8,620**	**4,931**	**4,221**	**28,375**
Depreciation and impairment					
At 1 April 2013	**–**	**2,283**	**2,703**	**–**	**4,986**
Depreciation charge	–	331	234	–	565
Disposals	–	-	(297)	–	(297)
At 31 March 2014	**–**	**2,614**	**2,640**	**–**	**5,254**
Depreciation charge	–	500	294	–	794
Disposals	–	-	–	–	–
Transfer to investment property	–	(8)	–	–	(8)
At 31 March 2015	–	**3,106**	**2,934**	**–-**	**6,040**
Net book value					
At 31 March 2014	**6,952**	**5,214**	**2,210**	**8,211**	**22,587**
At 31 March 2015	**10,603**	**5,514**	**1,997**	**4,221**	**22,335**

All property, plant and equipment is owned by the Group.

There was £4,084k capital expenditure contracted for at the reporting date but not recognised in the financial statements. (2014 – £17k). This related entirely to assets in course of construction on the Culham site.

Notes to the Financial Statements

13 Investment property

	Group and Authority	
	2015 £k	2014 £k
At 1 April	47,505	39,318
Change in fair value	5,694	8,187
Transfer from assets in course of construction	7,474	–
Transfer to owner-occupied property	(465)	–
At 31 March	**60,208**	**47,505**

Investment properties were valued at fair value at 28 February 2015 by independent valuers. The valuations were undertaken by Carter Jonas in accordance with the Valuation Standards of the Royal Institute of Chartered Surveyors, IFRS and guidelines in HM Treasury's FReM. The Group has adopted this valuation at the reporting date on the grounds that there were no material changes between the valuation date and the reporting date.

Investment properties are held for their investment potential. Rental income from tenants outside the Group is negotiated at arm's length. The following amounts have been recognised in the income statement:

	Group and Authority	
	2015 £k	2014 £k
Rental income	1,543	2,055
Direct operating expenses:		
– Investment properties that generated rental income	1,614	1,736
– Investment properties that did not generate rental income	380	298

14 Financial Assets

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Non-current				
At 1 April	10,980	9,802	13,523	13,049
Additions	2,084	1,178	–	474
At 31 March	**13,064**	**10,980**	**13,523**	**13,523**
Investment in subsidiary undertakings	–	–	3,000	3,000
Investment in joint venture	13,064	10,980	10,523	10,523
	13,064	**10,980**	**13,523**	**13,523**
Current				
Term bank deposits	8,666	8,574	–	–
Other financial assets	1,052	–	1,052	–
	9,718	**8,574**	**1,052**	**–**

a) Investment in subsidiary undertakings

Name	Country of incorporation	Ownership interest % 2015	2014
AEA Insurance Limited	Isle of Man	100	100

All subsidiary undertakings are included in the consolidation. The proportion of voting rights in the subsidiary undertakings held directly by the Group does not differ from the proportion of shares held.

b) Investment in joint venture

The Group has a 50% interest in a joint venture, Harwell Science and Innovation Campus Public Sector Limited Partnership, the public sector partner in Harwell Oxford, which is responsible for the development of the Harwell Oxford Campus. The interest in the joint venture is accounted for using the equity method in the Group financial statements.

	Group 2015 £k	2014 £k
At 1 April	10,980	9,802
Share of profits(loss) net of tax	21	(132)
Additions	2,063	1,310
At 31 March	**13,064**	**10,980**
Analysed as follows:		
Cost or valuation	13,762	11,699
Share of retained profits(losses)	(698)	(719)
	13,064	**10,980**

The following amounts represent the Group's share of the income, results, assets and liabilities of the joint venture. They are included in the Statement of Comprehensive Net Income and Statement of Financial Position:

	2015 £k	2014 £k
Profit/(loss) net of tax		
Income	187	245
Expenses	(166)	(377)
	21	(132)
Assets		
Current assets	10,719	9,516
Non-current assets	6,391	5,474
	17,110	14,990
Liabilities		
Current liabilities	621	1,553
Non-current liabilities	3,425	2,457
	4,046	4,010
Net assets	**13,064**	**10,980**

There are no contingent liabilities relating to the Group's interest in the joint venture, and no significant contingent liabilities of the venture itself.

(c) Term bank deposits
Term bank deposits are held with major UK banks. The average interest rate on the deposits held at 31 March 2015 was 1.07% (2014 – 1.15%). The credit risk associated with these investments is considered to be low because of the size and status of the banks involved.

(d) Other financial assets
This balance relates to an overage payment due from a previous sale of UKAEA land at Harwell, which will be made in 2015/16.

15 Financial instruments by category

Term deposits (Note 14c) are categorised as held to maturity investments, and Other financial assets disclosed in Note 14d are designated at fair value through profit and loss on initial recognition. With the exception of UKAEA's interest in its subsidiary and joint venture (Notes 14a and b), which are exempted from the application of IAS 39, all other financial assets of the Group and the Authority were categorised as loans and receivables at both 31 March 2015 and 31 March 2014. All financial liabilities of the Group and the Authority were categorised as other financial liabilities at both 31 March 2015 and 31 March 2014.

The majority of financial instruments relate to contracts to buy non-financial items in line with the Authority's expected purchase and usage requirements and the Authority is therefore exposed to little credit, liquidity or market risk.

16 Trade receivables, financial and other assets

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Amounts falling due after more than one year				
Reimbursement receivables (Note 21):				
– Site restoration	256,360	241,829	256,360	241,829
– Restructuring	9,152	10,788	9,152	10,788
Other receivables	40	796	40	796
	265,552	**253,413**	**265,552**	**253,413**
Amounts falling due within one year				
Trade receivables	3,661	3,306	3,661	3,306
Reimbursement receivables (Note 21):				
– Site restoration	166	46	166	46
– Restructuring	3,600	3,943	3,600	3,943
Prepayments and accrued income	4,622	15,571	4,573	15,532
VAT	889	1,043	889	1,043
Other receivables	551	87	1,116	497
	13,489	**23,996**	**14,005**	**24,367**

There are no impaired assets in any of the classes of trade and other receivables. Accrued income included accrued grant in aid of £632k.

Receivables can be analysed as follows:

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Amounts falling due after more than one year				
Other Central Government bodies	265,512	252,094	265,512	252,094
Bodies external to Government	40	1,319	40	1,319
	265,552	**253,413**	**265,552**	**253,413**
Amounts falling due within one year				
Other Central Government bodies	5,583	5,919	5,583	5,919
Local authorities	203	–	203	–
Bodies external to Government	7,703	18,077	8,219	18,448
	13,489	**23,996**	**14,005**	**24,367**

Notes to the Financial Statements

17 Cash and cash equivalents

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Balance at 1 April	30,319	38,949	26,829	35,418
Net change in cash and cash equivalent balances	(2,840)	(8,630)	(2,417)	(8,589)
Balance at 31 March	**27,479**	**30,319**	**24,412**	**26,829**
The following balances at 31 March were held at:				
Commercial banks and cash in hand	27,479	30,319	24,412	26,829
Short term investments	–	–	–	–
Balance at 31 March	**27,479**	**30,319**	**24,412**	**26,829**

18 Trade payables and other current liabilities

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Amounts falling due after more than one year				
Payments received on account	305	94	305	94
Amounts falling due within one year				
Trade payables	1,486	1,719	1,486	1,719
Accrued costs	7,770	5,518	7,758	5,508
Payments received on account	7,000	18,574	7,000	18,574
Social security and other taxes	757	704	757	704
Other payables	1,143	2,404	1,144	2,401
	18,156	**28,919**	**18,145**	**28,906**

Payables can be analysed as follows:
Amounts falling due within one year

	Group		Authority	
	2015 £k	2014 £k	2015 £k	2014 £k
Other Central Government bodies	3,459	12,988	3,459	12,988
Bodies external to Government	14,697	15,931	14,686	15,918
	18,156	**28,919**	**18,145**	**28,906**

There were no payables with Government bodies falling due after more than one year.

19 Deferred income

Deferred income received in 2015 relates to capital grants for the purchase of equipment for the Materials Research Facility which is to be established on the Culham site.

	Group and Authority	
	2015 £k	2014 £k
At 1 April	2,030	1,431
Deferred income received	1,454	759
Released to income statement	(170)	(160)
As at 31 March	**3,314**	**2,030**

20 Deferred income tax

Group and Authority	Investment property £k	Land and buildings £k	Total £k
At 1 April 2013	6,439	2,473	8,912
Income statement debit/(credit)	798	–	798
Charged directly to equity	–	(338)	(338)
At 31 March 2014	**7,237**	**2,135**	**9,372**
Income statement debit/(credit):			
– Revaluation	1,490	–	1,490
Charged directly to equity:			
– Revaluation	–	797	797
At 31 March 2015	**8,727**	**2,932**	**11,659**

Deferred income tax losses are recognised for tax depreciation and tax loss carry-forwards to the extent that the realisation of the related tax benefit through future taxable profits is probable. The Group did not recognise deferred income tax assets of £6,913k (2014 – £3,724k) in respect of tax losses of £34,567k that can be carried forward against future taxable income.

Notes to the Financial Statements

21 Provisions for liabilities and charges

Group	Site Restoration £k	Restructuring £k	Other £k	Total £k
At 1 April 2013	235,023	20,503	4,372	259,898
Changes in price levels	4,804	511	6	5,321
Roll forward of discount rate schedule and unwinding of discount	5,253	482	–	5,735
Provided in the year	–	1,623	10,579	12,202
Provisions not required written back	(3,179)	–	(470)	(3,649)
Provisions utilised in the year	(25)	(4,657)	(554)	(5,236)
At 31 March 2014	**241,876**	**18,462**	**13,933**	**274,271**
Changes in price levels	971	194	2	1,167
Roll forward of discount rate schedule and unwinding of discount	10,112	332	(172)	10,272
Provided in the year	3,599	1,543	3,321	8,463
Provisions not required written back	–	–	(804)	(804)
Provisions utilised in the year	(33)	(4,365)	(1,127)	(5,525)
At 31 March 2015	**256,525**	**16,166**	**15,153**	**287,844**
At 31 March 2014				
Non-current	241,830	14,069	11,692	267,591
Current	46	4,393	2,241	6,680
	241,876	**18,462**	**13,933**	**274,271**
At 31 March 2015				
Non-current	256,359	12,047	11,288	279,694
Current	166	4,119	3,865	8,150
	256,525	**16,166**	**15,153**	**287,844**

21 Provisions for liabilities and charges continued

Authority	Site Restoration £k	Restructuring £k	Other £k	Total £k
At 1 April 2013	235,023	20,503	2,848	258,374
Changes in price levels	4,804	511	6	5,321
Roll forward of discount rate schedule and unwinding of discount	5,253	482	–	5,735
Provided in the year	–	1,623	10,579	12,202
Provisions not required written back	(3,179)	–	(10)	(3,189)
Provisions utilised in the year	(25)	(4,657)	(554)	(5,236)
At 31 March 2014	**241,876**	**18,462**	**12,869**	**273,207**
Changes in price levels	971	194	2	1,167
Roll forward of discount rate schedule and unwinding of discount	10,112	332	(172)	10,272
Provided in the year	3,599	1,543	–	5,142
Provisions not required written back	–	–	(804)	(804)
Provisions utilised in the year	(33)	(4,365)	(1,127)	(5,525)
At 31 March 2015	**256,525**	**16,166**	**10,768**	**283,459**

At 31 March 2014				
Non-current	241,830	14,069	11,462	267,361
Current	46	4,393	1,407	5,846
	241,876	**18,462**	**12,869**	**273,207**

At 31 March 2015				
Non-current	256,359	12,047	7,976	276,382
Current	166	4,119	2,792	7,077
	256,525	**16,166**	**10,768**	**283,459**

(a) Site restoration

The decommissioning provision represents the estimated costs of decommissioning fusion research facilities at UKAEA's Culham site, including the storage, processing and eventual disposal of radioactive wastes.

Calculation of the liabilities is based on the technical assessments of the processes and methods likely to be used in the future to carry out the work. Estimates are derived from the latest technical knowledge and commercial information available, taking into account current legislation, regulations and Government policy. Summary figures are built up by aggregating detailed estimates for individual liabilities. Allowance is also made for infrastructure costs, which are an appropriate share of site running costs and other overhead costs attributable to plant and buildings. The calculation is reassessed annually.

The best estimate of the cost of dealing with the liabilities at 31 March 2015 is discounted at rates advised by HM Treasury to the reporting date. The rates now applied are:

	Rate %
Short term – 0 to 5 years from the date of the Statement of Financial Position (SFP)	–1.5
Medium term – after 5 and up to 10 years from the date of the SFP	–1.05
Long term – over 10 years from the date of the SFP	2.2

As advised by HM Treasury, this schedule has been rolled forward by one year in 2014/15. As a result, the discount rate applied to cashflows in 2020/21 has changed from -0.65% to -1.90% and the rate applied to cashflows in 2025/26 has changed from +2.20% to -0.65%. The effect of these changes was to increase the discounted value of the liability by £10,436k as at 31 March 2015. The effect of the corresponding changes in rates between 2012/13 and 2013/14 was to increase the discounted value of the liability at 31 March 2014 by £5,386k.

The provision is expressed in 2014/15 money values using an inflation rate of 0.38% to uplift the provision from 2013/14 values. The analysis of expected timing of discounted flows is as follows:

	Group and Authority	
	2015 £k	2014 £k
Not later than one year	166	46
Later than one year and not later than five years	48,262	19,091
Later than five years	208,097	222,739
	256,525	**241,876**

The best estimate of the undiscounted cost of dealing with the liabilities is £256,544k (2014 - £254,822k).

A letter issued by the then Secretary of State for Energy in 1986 stated that the Government was prepared to continue to accept responsibility in principle for those costs which the Authority incurs in treating and disposing of nuclear wastes and in decommissioning plant arising from:

(i) programmes carried out by the Authority and its predecessors prior to 1 April 1986; and
(ii) programme agreement work undertaken for BIS and its predecessors after 1 April 1986.

These assurances were reconfirmed by BIS in April 2015. On the basis of these assurances a matching receivable is included in the statement of financial position.

Since much of the work required to deal with the liabilities will not be undertaken until well into the future, there is a significant uncertainty as to the amount of the provision and the associated receivable due from BIS. This significant uncertainty does not impact on either net assets or the net profit reported in the financial statements.

The provision now includes the estimated decommissioning costs of four recently constructed power supplies buildings and an extension to J30, a low level radioactive waste processing facility.

UKAEA has assessed the impact of the date of JET closure, which is a key variable, on the best estimate recognised in the 2014/15 Annual Accounts. This gives a range of undiscounted and discounted costs (including the best estimate) as follows:

Undiscounted costs – £256,544k to £256,592k (2014 – £254,511k to £254,822k)
Discounted costs – £224,997k to £256,526k (2014 – £227,519k to £241,875k)

When a later date for JET closure is assumed, the discounted costs are reduced substantially compared with those for earlier closure dates. This is because the Treasury discount rates above increase the discounted value in the earlier years of the phasing, when rates are negative, but reduce it in later years when the rate is positive. Assuming later JET closure moves more decommissioning costs into later years.

(b) Restructuring

The restructuring provisions represent termination benefits payable under early retirement arrangements to employees who had retired early, or had accepted early retirement, before 31 March 2015. These benefits continue at least until the date at which the employee would have reached normal retirement age. The restructuring provisions are discounted to the reporting date at the discount rate for pension liabilities, which is 1.3% in 2014/15. The undiscounted cost of the group provisions is £17,034k (2014 – £19,771k) and the benefits are estimated to be payable over a period up to 30 years.

The analysis of the expected timing of discounted flows is as follows:

	Group and Authority	
	2015 £k	2014 £k
Not later than one year	4,119	4,393
Later than one year and not later than five years	6,921	7,984
Later than five years	5,126	6,085
	16,166	**18,462**

Part of the expenditure required to settle the restructuring liabilities will be reimbursed by other parties as follows:

(i) Lump sums paid to employees on early retirement are refundable to the Group from the appropriate pension scheme at or after the date on which the individual concerned would have reached normal retirement age.

(ii) Assurances covering restructuring provisions made before 1 April 2004 have been received from BIS, and reconfirmed in April 2015, and expenditure related to these provisions is reimbursed by BIS.

On the basis of these reimbursement arrangements, receivables have been included in the statement of financial position.

(c) Other provisions

UKAEA has made a provision of £8,397k relating to the disposal of operational waste arising from its previous contract to operate JET, which ended in December 2014. The provision was discounted at the Treasury rates for general provisions referred to in note 21a) above. The undiscounted cost of the provision is £8,112k. The remaining provisions mainly comprise unfunded retirement benefit obligations (Note 22c) and claims relating to industrial-related injuries.

22 Retirement benefits

(a) Defined benefit schemes

The Group has three defined benefit schemes: the Combined Pension Scheme (CPS), the Principal Non-Industrial Superannuation Scheme (PNISS) and the Protected Persons Superannuation Scheme (PPSS). These schemes have members from other employers as well as the Group. No information in these financial statements relates to other employers participating in the CPS, PNISS or PPSS, although the Group has overall responsibility for the management of the schemes. No contingent liability is expected to arise from this responsibility.

In common with other public sector schemes, the CPS, the PNISS and the PPSS do not have many of the attributes of normal pension schemes. All contributions are paid to and benefits paid by HM Government via the Consolidated Fund. Any surplus of contributions made in excess of benefits paid out in any year is surrendered to the Consolidated Fund and any liabilities are met from the Consolidated Fund via the annual Parliamentary vote. The Government does not maintain a separate fund and actuarial valuations are based on a theoretical calculation as to how a typical UK pension scheme would have invested the historical surplus of contributions over payments.

In accordance with the FReM, the schemes are accounted for in these financial statements as defined contribution schemes.

Employer contributions are calculated in accordance with HM Treasury methodology "Superannuation Contributions Adjusted for Past Experience" and are based on the expected cost of members' benefits as they accrue. The total contributions paid by the Group during the year were £3,941k (2014 – £3,544k).

b) Defined contribution schemes

The Group manages two defined contribution schemes, the Additional Voluntary Contribution (AVC) scheme and the Shift Pay Pension Savings Plan (SPPP) scheme, both of which are fully insured schemes administered by Prudential Assurance Company Ltd to whom contributions are paid.

The AVC scheme includes members from the Group and from other employers who are members of CPS or PPSS and who have opted to pay additional voluntary contributions. No employer contributions are made to this scheme.

The members of the SPPP scheme include shift working employees of the Group and other employers who are members of CPS or PPSS. The costs of the SPPP scheme, which are directly linked to shift pay earnings, are charged to the statement of comprehensive income at the time the shift pay is paid. The total contributions paid by the Group during the year were £17k.

(c) Unfunded retirement benefits

Three former UKAEA chief executives have unfunded retirement benefits which are not included in the UKAEA pension schemes.

The movement in the liability for these benefits is shown below:

	Group and Authority	
	2015 £k	2014 £k
At 1 April	1,923	1,764
Change in discount rate	147	151
Interest on liability	82	71
Benefits payable	(76)	(74)
Actuarial (gain)/loss	(19)	11
	2,057	**1,923**

The interest on liability is included in the statement of comprehensive income and the actuarial loss is included in taxpayers' equity. The closing liability, discounted at the appropriate pensions liability discount rate, is included in other provisions for liabilities and charges in the statement of financial position (Note 21).

23 Operating leases

(a) The Group as lessee

Non-cancellable operating lease rentals are payable as follows:

	2015 £k	2014 £k
Not later than one year	172	160
Later than one year and not later than five years	24	156
Later than five years	–	–
	196	**316**

The Group leases vehicles and office equipment under operating leases.

(b) The Group as lessor

The Group leases its investment property with lease terms of between 0.5 and 25 years. The leases contain market review clauses in the event that the lessee exercises the option to renew. The lessee does not have an option to purchase the property at the expiry of the lease period.

The future minimum lease payments under non-cancellable leases are as follows:

	2015 £k	2014 £k
Not later than one year	1,384	1,585
Later than one year and not later than five years	2,802	967
Later than five years	1,683	91
	5,869	**2,643**

Rental income received during the year is disclosed in Note 13.

24 Related-party transactions

UKAEA is an NDPB sponsored by BIS which is regarded as a related party. During the year, the Group had various material transactions with BIS and with other entities for which BIS is regarded as the responsible department, in particular EPSRC. STFC is UKAEA's partner in the Harwell Science and Innovation Campus Public Sector Limited Partnership (note 14).

In addition, the Group had various material transactions with other government departments and other central government bodies. Most of these transactions have been with the Civil Nuclear Constabulary.

No Board member, key manager or other related party has undertaken any material transactions with the Group during the year.

25 Statutory borrowing limit

During 2014/15, the statutory borrowing limit set by Section 3 of the Atomic Energy Authority Act 1986 as amended by The United Kingdom Atomic Energy Authority (Limit on Borrowing) Order 1991 remained at £200m. There were no borrowings by UKAEA during the current or previous year.

Glossary

AVC	Additional Voluntary Contribution
AEAIL	AEA Insurance Ltd
BIS	Department for Business Innovation and Skills
CRC	Carbon Reduction Commitment Energy Efficiency Scheme
CETV	Cash Equivalent Transfer Value
CEO	Chief Executive Officer
CERN	European Laboratory for Particle Physics
CPS	Combined Pension Scheme
CCFE	Culham Centre for Fusion Energy
DEMO	Demonstration fusion power station
ELMs	Edge Localised Modes
EPSRC	Engineering and Physical Sciences Research Council
EURATOM	European Atomic Energy Community
FReM	Government Financial Reporting Manual
FTE	Full Time Equivalent
F4E	Fusion for Energy
HSIC PubSp	Public sector partnership for the Harwell joint venture
IAS	International Accounting Standards
IET	Institution of Engineering and Technology
IMechE	Institution of Mechanical Engineers
IoP	Institute of Physics
IFRS	International Financial Reporting Standards
ITER	Next generation international experimental fusion reactor
JET	Joint European Torus
MRF	Materials Research Facility
MAST	Mega Amp Spherical Tokamak
NNL	National Nuclear Laboratory
NPL	National Physics Laboratory
NNUF	National Nuclear Users Facility
NDPB	Non-Departmental Public Body
NDA	Nuclear Decommissioning Authority
OSR	Radioactive and Out of Scope of Regulations
PPSS	Protected Persons Superannuation Scheme
PNISS	Principal Non-Industrial Superannuation Scheme
RACE	Remote Applications in Challenging Environments facility
R&D	Research & Development
STEM	Science, Technology, Engineering and Maths
STFC	Science & Technology Facilities Council
SIRO	Senior Information Risk Officer
SPPP	Shift Pay Pension Savings Plan
UKAEA	UK Atomic Energy Authority

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