

# Annual Report and **Accounts** 2012/13





Defence Science and Technology Laboratory

## Annual Report and Accounts 2012/13

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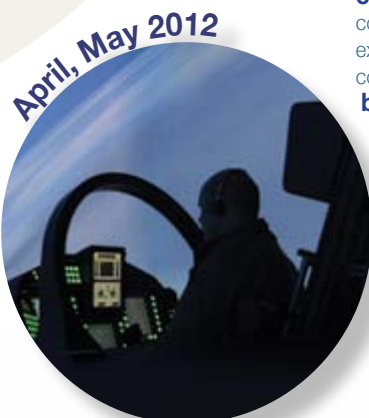
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# Highlights

from **2012/13**

Our Radiation Protection Advisers turned their expertise to **advising the UK Government on the implications of proposed new European Union (EU) legislation** representing the Ministry of Defence (MOD) in technical and political discussions. We helped to establish the UK's position for EU negotiations and will continue to work on behalf of the Defence Safety and Environment Authority, and the UK Government on radiation safety legislation.



We investigated **a new virtual training concept** to enable MOD to train UK aircrew to combat-ready proficiency. In the first fully-assessed exercise using the Live, Virtual and Constructive concept, we **analysed interoperability between two pairs of Typhoon aircraft** – one live pair over the North Sea ranges and a second virtual pair from cockpit trainers at RAF Waddington. The exercise identified the potential for this concept to provide richer, varying tempo, scenarios that could not be delivered via live training alone.

## A Virtual Laboratory was established

by the Chemical, Biological and Radiological (CBR) Memorandum of Understanding (MOU) Information Systems Group member nations (Australia, Canada, UK and US). The first use of the laboratory enabled member nations to test if they had a common understanding at the CBR Warning and Reporting System level, informing national development and procurement of CBR and Nuclear Information Systems. The laboratory is now available for broader exploitation across the CBR MOU, enabling interoperability testing of CBR models and systems.



Our developed Co-operative Electronic Support Measure Operations (CESMO) Operational Concept Demonstrator (OCD) software application, provides **a framework allowing military Electronic Surveillance (ES) collection platforms to identify and locate target emitters more precisely** and more quickly. The CESMO OCD software has been released to UK industry and a number of NATO countries under licence for test and evaluation. We are now addressing the transfer of the application to UK industry to develop CESMO for operational activities and export overseas.

## Supporting the NATO PROTEUS trial

for ground-hostile fire weapons in Slovenia, we provided trials planning, management and data collection. Signature data, collected from the firing of seven weapons, will inform air survivability algorithm. Our support demonstrated UK determination to wider NATO for Allied aircraft to have the best possible collective platform survivability, provided access to previously unseen threats and data, and represented UK interests in pan-NATO standards and documentation.

## The development of a new detection platform

by scientists at Imperial College London, which was funded by the Centre for Defence Enterprise (CDE), quickly detects trace amounts of chemicals such as pollutants, explosives or illegal drugs. The new platform can identify a single target molecule from 10,000 trillion water molecules within milliseconds by trapping it on a single layer of gold nanoparticles. This technology demonstrates the possibility to develop quick, compact, reusable and easy to assemble detection devices.



June, July 2012



Our experts provided advice to police from the North Eastern Counter Terrorist Unit, South Eastern Counter Terrorist Unit and Explosives Ordnance Disposal specialists in response to a request for **support concerning the suspected threat of homemade explosives**. We provided advice regarding chemical components for homemade explosives, safe submission to the Forensics Explosives Laboratory for analysis, and provided preliminary reports.

We worked with the Medusa consortium, comprising four UK Small- to Medium-sized Enterprises (SMEs) to **develop a single, integrated surveillance system with standard interfaces** and architecture.

The Medusa system is relatively compact and lightweight and because of its modular design, several surveillance or sensor systems can be controlled from one central point. Initially designed for use in aircraft, the system can easily be adapted to be used on land or sea and is being marketed for military and security use.

Our scientists, working with Defence Equipment and Support (DE&S), have **provided impartial advice and analysis to support the designs for the Type 26 Global Combat Ship**. We directly supported 25 key capability decisions, applying fresh thinking to existing problems and underpinning Main Gate design choices. Analysis instigated several major changes to the platform design; driving in capability to meet the requirement, and driving out cost where options offered too little benefit.

August, September 2012



FOXHOUND Protected Patrol Vehicle's initial operational capability was achieved with **the delivery of the first vehicles to theatre** for final testing, driver training and operations 'outside the wire'. FOXHOUND offers mine protection that is world class for such a vehicle and a high level of survivability against asymmetric threats. The deployment of FOXHOUND demonstrates the significant exploitation of Dstl expertise, including the armour research programme, mobility analysis and systems-level assessment methodology.

Maximising the impact of science and technology for the defence and security of the UK

February, March 2013



We featured in the **top 10 Science and Technology (S&T) employers** in the Job Graduate Awards and were 60th in The Job Crowd's *Top Companies For Graduates To Work For*. Early career recruitment remains key to building and maintaining our skills, and this year we had 35 apprentices on three schemes covering engineering capability, laboratory technicians and business administration services. We also ranked 73rd in the Guardian Top 300 employers, and ranked at 7th for S&T.

We **developed a multi-target tracking toolkit** that was shown to track more than 20 targets simultaneously with almost instantaneous track updates, allowing real-time functionality. Developed for the maritime domain, the toolkit can be applied to a broad range of sensor and threat types, including those in the air and land domains. The availability of a standalone toolkit reduces dependency on licensed software. Potential exploitation routes include the Assisted Situation Awareness and Decision Aids programme to track multiple targets in challenging maritime scenarios.





# Foreword

by our Chairman

This report highlights a number of examples of Dstl's key role in the defence and wider security of the UK. Inevitably, it can be only a partial picture. We operate across the spectrum of the work of MOD and the Armed Forces, from support to decision-making across a range of issues to working with our forces and those of our allies in Afghanistan.

We value equally highly our work with wider Government and organisations with security responsibilities. One illustration of this, in which our staff took particular pride, was our work in support of the London 2012 Olympic and Paralympic Games.

Our first priority must be the quality and impact of the S&T-related services of many kinds that we supply to our customers. Given public expenditure pressures, it is no less important that we deliver all that we do efficiently. The framework under which we operate as an agency of MOD and a Trading Fund both incentivises a strong focus on meeting customer needs and on cost, and underpins transparent reporting. As an example of this transparency, we were delighted to be chosen as the winner of the PricewaterhouseCoopers 2012 'Excellence in Reporting in the Public Sector' Building Public Trust award.

We play an important role in support of the Government's wider objectives, whether in support of international co-operation with key allies and partners or support to economic growth and exports. As part of this role, we have given particular attention to the development and success of the Centre for Defence Enterprise (CDE) and of our wholly owned subsidiary Ploughshare Innovations Ltd.

Because of the economic situation, there have been tight restrictions on public sector pay and reviews of other aspects of the terms and conditions, which inevitably are a concern for our staff. We believe our total reward package has a number of positive elements and we are determined to continue to attract our share of the most talented scientists and engineers in the country. The Board continues to be much impressed by the quality and commitment of our staff, as I know are Ministers and others who have the opportunity to see their work.

We are also determined to maintain our position as an organisation central to the work of Government and one highly-trusted by our Government customers and by our partners in industry, academia and internationally. Work is in hand to revise our business model and top-level structure to improve our support to our customers and to manage our programmes even more effectively. We have worked actively to respond to Transforming Defence and this will remain a key priority looking ahead.

Finally, we have welcomed two new external Non-Executive Directors to the Board this year – David Grant and Dame Wendy Hall, each with extremely distinguished careers in S&T. They and the Board as a whole are determined to ensure that Dstl maintains and develops its capabilities and reputation as an excellent S&T-based organisation.

**Sir Richard Mottram**

Chairman

30 May 2013



# Our Chief Executive's Introduction



I am pleased to introduce this Annual Report and Accounts, which reflect another busy and successful year for Dstl. In a period of considerable challenge and change in the defence and security sector, we delivered more than £600 million of projects to a wide range of customers, exceeding targets for project delivery and for customer satisfaction.

Our most urgent and pressing work is in providing scientific advice and services in direct support of UK Armed Forces on operations, most notably in Afghanistan. Significant numbers of our scientists and engineers deploy to the operational theatre and, ably supported by their colleagues back in the UK and by our industry partners, rapidly provide innovative solutions that make a difference in the campaign and save lives. I pay special tribute to the members of our workforce who serve their nation in this way, including many who have deployed a number of times in recent years.

Closer to home, the summer of 2012 was dominated by the London 2012 Olympic and Paralympic Games. Dstl played a significant role in the planning and delivery of a safe and secure games, and it was fitting that several hundred of our staff received special public service medallions issued by the Prime Minister in recognition of their professional contribution.

More broadly, we have continued to develop and manage, on behalf of MOD, a substantial and broad-ranging programme of research – more than 60 per cent of which is delivered by industry and university partners. In doing so, we are prioritising investment in those new technologies and knowhow, such as cyber, that will enable us to provide vital support to potential future operations. And our widely respected analytical community has responded to growing demand, across Government, for evidence and analysis to support policy development and decisions.

The programme of work summarised in this report has been delivered in the context of considerable change in MOD and across the Civil Service. As a result of action taken this year, we are well placed to provide the scientific advice and support needed by the four Military Commands in their new transformed roles. We have also worked hard in recent months to seize the opportunities offered through Civil Service Reform, for example in the work we have done jointly with Civil Service Learning to develop new leadership training for our workforce.

Internally, we have continued to evolve and adapt our structures and systems, and to invest in new skills. Our Helios Programme to relocate people and facilities from Fort Halstead to Portsdown West and Porton Down has continued this year, with new building work now under way at Porton Down. We are implementing an organisational change to give a clearer focus on supporting our customers through account management and more coherent and efficient delivery of programmes and projects using both internal resources and external suppliers.

The successes of the past year would not have been achieved without the outstanding commitment and professionalism of our workforce. I am most grateful for everyone's contribution and immensely proud of the impact that, together, we achieve in the defence and security of the UK.

A handwritten signature in black ink that reads "Jonathan Lyle". The signature is stylized and includes a large, sweeping flourish at the end.

**Jonathan Lyle**  
Chief Executive  
30 May 2013

# Overview of Dstl

Dstl is MOD's in-house Science and Technology (S&T) organisation. Our purpose is to maximise the impact of science and technology for the defence and security of the UK.

We are focused on making sure that S&T delivers as much benefit as possible to UK defence and security by giving the right S&T advice at the right time, as cost efficiently and effectively as possible. We provide the Government with a wide programme of research and scientific and technical support, delivered from our professional in-house expertise and by working with industry, academia, Government laboratories and international agencies.

As well as delivering directly, we are the agent for the wider S&T community to engage with MOD. We offer a trusted, safe and collaborative environment where security and commercial sensitivities can be managed.

Our S&T work covers a range of applications and scientific and technological disciplines, and includes research, advice, consultancy, and technical and systems risk management. We also ensure that the intellectual property we generate in the course of our defence work is exploited, through licensing or the creation of spin-out companies, and further support the Government's growth agenda.

As a Trading Fund, our activities are funded entirely by customer contracts from MOD and security sector departments and agencies. We own and manage our estate, our Information Technology (IT) infrastructure, and our own pay and career structures.

We are responsible for managing the Defence Science and Technology Programme (Defence S&T Programme). In managing this programme, we commission work both from within our internal departments and from a wide range of industry and academic suppliers. More than 60 per cent of the Defence S&T Programme funding is spent with external suppliers.

We currently operate from four sites in southern England: Porton Down, Wiltshire; Portsdown West and Alverstoke, Hampshire; and Fort Halstead, Kent. However, working off-site is an integral part of what we do as an organisation and we also have staff at Harwell, Oxfordshire, a significant presence on other MOD sites including Abbey Wood, Bristol, within the Commands and in MOD Headquarters, London. Our formal secondment and project-funded placements, both internationally and within industry and academia, are helping to build and to exploit our network and relationships across the S&T community.

We are currently implementing plans to transfer key capabilities to Porton Down and Portsdown West before exiting from Fort Halstead in 2016/17 (the Helios Programme).

# Our performance

Dstl assesses its current and future performance each month so that appropriate and timely action can be taken to ensure that we continue to deliver against our vision as set out in our Corporate Plan. Our approach produces a health-check assessment of our performance in relation to our strategic framework and Business Plan. A summary of our key non-financial indicators, which have been agreed with our Board, is provided below, with more information provided in subsequent sections of this report.

We recognise the changes in Government including austerity, Transforming Defence, Civil Service Reform, the prosperity agenda and the imperative to continue to perform efficiently, sustainably and to demonstrate a strong return as a Trading Fund.

Performance Reporting has been reviewed in-year as a result of feedback sought from the Board and Executive Committee. Our Key Performance Indicators have continued to evolve and include 'return to green' actions where improvement is needed. A monthly dashboard on our intranet gives staff visibility of our performance and allows discussion of how an individual's contribution translates to our overall success.

We have embarked on a significant organisational change programme and will continue to refine our suite of business reporting tools to monitor performance.

## Delivery

We have delivered our customers' projects to time, to cost and to their satisfaction, and we increased the proportion of the Defence S&T Programme placed externally.

	Performance	Threshold
Overall customer satisfaction with product delivery	94%	> 93%
% projects completed to time	94%	> 85%
% projects completed to cost	88%	> 85%
% Defence S&T Programme delivered externally	61%	> 60%

All figures quoted are for Trading Fund only

## People

Staff engagement levels have fallen slightly, taking us just outside of the Civil Service upper quartile, although our permanent staff turnover rate remained low. Our total staff numbers were higher than originally planned reflecting higher than expected customer demand, with the increase managed through the recruitment of non-permanent staff. Percentage of hours lost to sickness absence is well below the public sector average. Our injury and accident rates also remain very low.

	Performance	Threshold
Employee Engagement Index 2012	62%	> 63%
Permanent staff turnover	4.9%	< 7%
% non-permanent staff	16.6%	> 12%
Total staff (Full-Time Equivalent as at 31 March 2013)	3,973	> 3,868
% hours lost to sickness absence	2.1%	< 2.5%
Health and Safety reportable injuries per 100,000 hours worked	0.06	As low as reasonably practicable

## Sustainability

We have played an active part in the Greening Government Agenda by seeking to reduce energy consumption and emissions. The nature of the activities at Porton Down and an extended cold winter has contributed to higher carbon emissions, and we are improving the way we measure progress towards the MOD-wide carbon targets through our estates development plan. More details are available in the Dstl Sustainability Report on page 72.

	Performance	Threshold
Building footprint carbon emissions (kg/m <sup>2</sup> )	163	<140

# Financial review

Dstl continued to deliver robust financial performance, with sales up more than 5 per cent to £629 million, and an operating profit of £26 million (2011/12: £31 million). This reflects a further 12 per cent increase in work placed with external suppliers, and the freezing of prices for a fourth year while maintaining a tight cost-control regime.

## Sales

Sales for the year were £629 million (2011/12: £596 million), an increase of 5.5 per cent. The full breakdown is set out in the table below:

£ million	2012/13	2011/12
<b>MOD:</b>		
Defence S&T Programme	421	405
Other	163	148
	<b>584</b>	<b>553</b>
<b>Non MOD:</b>		
Wider Government	27	26
Non-Exchequer	11	11
Estates	6	5
Intellectual Property	1	1
<b>Total</b>	<b>629</b>	<b>596</b>

MOD continued to account for 93 per cent of sales, with the majority attributable to the Defence S&T Programme, where sales grew by £16 million to £421 million (2011/12: £405 million). This represented 67 per cent of total sales (2011/12: 68 per cent), with an increasing proportion contracted directly with industry.

After a fall in the previous year, sales to DE&S increased by 5 per cent to £90 million (2011/12: £86 million). Sales to Defence Intelligence (DI) increased by £3 million (8 per cent) as demand in relation to current military operations and emerging threats remained high. Business with the rest of MOD increased by 27 per cent to £35 million (2011/12: £27 million), with growth in the cyber programme and analytical support to Transforming Defence.

Non-MOD sales increased by £2 million to £45 million (2011/12: £43 million) and included work for wider Government in relation to the London 2012 Olympics. Funding for security and defence initiatives remains a public sector priority despite continuing budget constraints.

## Cost of sales

Cost of sales increased by £33 million to £304 million (2011/12: £271 million). The increase of 12 per cent reflects the continued drive to deliver more work externally, consistent with Government policy set out in the 2012 Government White Paper *National Security Through Technology*. Both the amount of work sourced directly through industry, and the proportion of Dstl's programme done in collaboration with external parties, increased during the year.

## Operating expenses

Operating expenses increased by £5 million to £299 million (2011/12: £294 million). Staff costs have increased by £8 million to £198 million (2011/12: £190 million) and account for 67 per cent

£ million	2012/13	2011/12
Staff costs	198	190
Non-staff costs	97	95
Depreciation and amortisation	9	14
Other operating income	(5)	(5)
<b>Total</b>	<b>299</b>	<b>294</b>

of total operating expenses (2011/12: 65 per cent). This results from a 2.9 per cent rise in the average number of staff, coupled with a higher average staff cost arising from increasing use of non-permanent staff. These now account for 17 per cent of total headcount (2011/12: 14 per cent), helping to increase our flexibility in meeting future challenges.

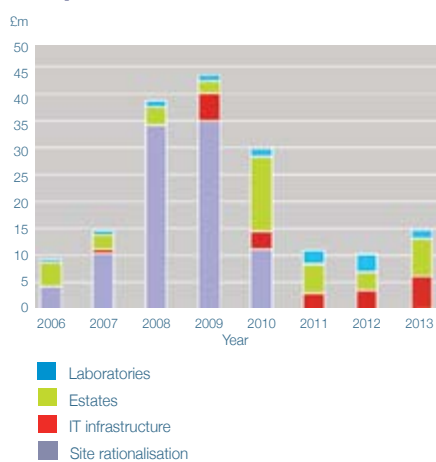
Non-staff costs increased to £97 million (2011/12: £95 million). This arose from a 2 per cent increase in underlying infrastructure operating costs and an increase of £1 million in one-off costs associated with preparation for the Helios site rationalisation programme. The decrease in depreciation costs is caused principally by netting off a gain on disposal of the vacated Pyestock site of £4 million.

Other operating income is offset against operating expenses and remained at £5 million. This principally comprises the recovery of costs for Dstl staff seconded to wider Government, both in the UK and overseas.

## Operating profit

Operating profit reduced by £5 million to £26 million (2011/12: £31 million). The sales increase of £33 million was offset by a corresponding increase in cost of sales, with the £5 million impact of operating cost increases (as explained above) leading to the overall net reduction.

## Capital investment



Capital investment was £15 million (2011/12: £10 million). Ahead of the Helios site rationalisation programme, work has commenced on key enabling projects at the Porton Down site. In-year expenditure included £2.8 million (of a total £7.3 million) related to upgrading the site's incoming electricity supply, and the first £2.3 million towards construction of a new explosives storage facility. Both projects are scheduled to complete in 2013/14. The completion of improvements to high classification network and communications infrastructure incurred a further £2.0 million (adding to the £0.9 million spent in 2011/12), and the commencement of an organisation-wide upgrade to desktop IT equipment and software accounted for £2.0 million, with completion of the roll-out scheduled in 2013/14.

## Funding and treasury management

We have been funded by a loan from MOD of £32 million, which was fully drawn down in 2009/10. This followed payment of a £25 million special dividend to MOD in 2008/09. Repayment of the loan commenced in 2010/11 and will be repaid over 10 years. The average interest rate on the loan has been fixed at 3.9 per cent and the outstanding year-end balance was £23 million. We ended the year with cash of £79 million (2011/12: £80 million) and future major investments will continue to be funded from internally generated cash.

## Supplier payments

During the year, we paid 95 per cent of approved invoices within five days (2011/12: 92 per cent), against the target set by Government of 80 per cent.

## Dividends

A dividend of £10 million will be paid in respect of 2012/13 (2011/12: £8.5 million), based on our Return on Capital Employed (ROCE) target of 3.5 per cent.

## Post balance sheet events

There have been no significant events since the end of the financial year that affect the results for the year or the year-end balance sheet.

## Accounting policies

These accounts have been prepared under International Financial Reporting Standards (IFRS), as adapted for the public sector in the Government Financial

Reporting Manual (FRM), issued by Her Majesty's Treasury. There have been no new accounting standards, amendments or interpretations that affect the financial statements and no changes in accounting policy.

## Outlook

Despite the current economic climate and constraints on public sector finances, demand for our skills and services remains strong, and, in the short term, there is no sign of a downturn in sales. There are opportunities to broaden our customer base to ensure that our key capabilities are fully utilised. There is a strategic intent to engage more widely with external parties, which will reduce the proportion of work delivered internally in the medium term.

There remains a challenge to reshape the organisation during the site rationalisation process while preserving those capabilities that are operationally critical and nationally unique. The balance between the permanent and non-permanent workforce will allow greater flexibility in that process. Cost pressures in areas such as energy and IT will drive a continued focus on achieving value for money through our key infrastructure service providers. Our investment priorities will centre on those projects that first enable, and then deliver Helios. We remain in a strong position to face the challenges and uncertainties that lie ahead and confident of delivering the longer-term operating-cost reductions outlined in our Corporate Plan 2013–18.

# Our work

From the Military commander in the field through to the policy makers within Government, Dstl works with a broad range of customers within the UK Armed Forces, MOD and wider Government. We draw on our own internal capabilities and the wider S&T supply base, demonstrating pull-through and exploitation of technology and knowledge, to maximise the impact of S&T for the defence and security of the UK.

Our top priority is to continue to deliver impact in addressing our customers' most pressing issues while also delivering value for money. Work this year has continued to support operations abroad and at home, with the London 2012 Olympics, for example.

We are responsible for delivering MOD's Defence S&T Programme, which is designed to deliver six critical outcomes for Defence, as laid out in the 2012 Government White Paper *National Security Through Technology*:

- Support to current defence and security operations
- Plan for future capabilities that will be needed in the longer term
- Cost reduction and more future proof systems
- Support to critical S&T capabilities/facilities
- Provide timely and effective advice to Ministers and Government
- Particular focus on the human and sociological aspects of capability.

Income from the Defence S&T Programme over the year was £421 million; delivered using internal and external resources. The remainder of Dstl's income was £208 million.

Cost reduction is one of the six critical outcomes of the 2012 Government White Paper and this year we have completed an analytical investigation to understand the cost drivers within the new Defence Operating Model. This research has directly contributed to addressing the overall affordability of Defence and has enabled the identification of areas for potential savings.

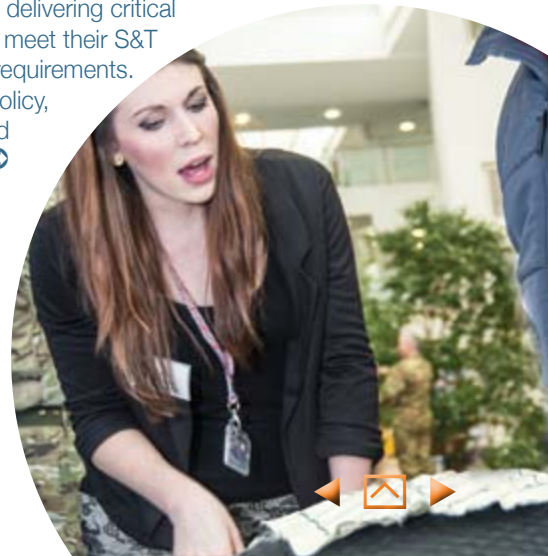
During the year, we have continued to provide support to DE&S programmes and projects through the provision of technical advice, evidence-based decision-making, analytical thinking and analysis. We also continued to work closely with the DE&S Technical Directorate in derisking new technologies, in the development of open systems architectures and to support the exploitation of the Defence S&T Programme.

These activities are enabled by the network of Science Gateways and other staff embedded across DE&S and with direct access to our S&T community and in industry. Our income from DE&S was £90 million, showing the importance placed on S&T advice and analysis in acquisition and support.

Transforming Defence, in particular the Commands, Customer Design and the DE&S Materiel Strategy, continues its planning and implementation. We have supported these organisations through embedded staff and the provision of expert advice, for example in Finance, and in S&T advice, analysis and systems thinking. We have also continued to develop our thinking about how this may impact on us in the future.

Our support to DI has achieved notable successes this year, and income in 2012/13 was £38 million. The detailed technical analysis and evaluation that we deliver to DI is a key enabler in understanding and reducing the threat posed by conventional weapons and devices such as Improvised Explosive Devices (IEDs), in Afghanistan and elsewhere in the world.

A total of 93 per cent of our programme is carried out on behalf of MOD. Our goal is to work equally closely with wider Government and organisations with security responsibilities to help meet their objectives, with an emphasis on counterterrorism, cyber, transport and aviation security. Working closely with colleagues across Government, including the Home Office, Department for Transport and the Cabinet Office, we are delivering critical advice and support to meet their S&T research programme requirements. Our support informs policy, readiness planning and operational support. ➔



# Soldier burden: working with industry

As soldiering becomes ever more reliant on technology, the amount of equipment a soldier has to carry increases. This has the adverse effect of increasing the physical burden on the soldier, which in turn impacts their operational effectiveness.

Work to reduce this physical burden has become a priority for MOD, including the exploration of alternative technologies to conventional batteries. Each patrol soldier currently carries around 12 per cent of additional weight in batteries alone.

We responded to this challenge by working with two companies, OXIS Energy and LINCAD Ltd, who between them are developing rechargeable Polymer Lithium Sulfur batteries for UK forces. This type of battery offers significant weight savings of between 50 to 80 per cent compared with conventional Lithium Ion batteries that are in service today.

This collaborative work will enable OXIS to further develop their pioneering battery cell technology and LINCAD to integrate these cells into current battery volumes, using LINCAD's battery expertise to ensure that the final design is a safe and reliable replacement.

The operational benefits of selecting this type of battery are many, as they will work in a wide variety of harsh conditions, including extreme temperatures and short circuits. The batteries have also passed the test of being subjected to bullet penetration.

Polymer Lithium Sulfur batteries are also safer for the environment and for personnel using them, as they are ultimately biodegradable and do not contain any heavy metals or toxic components.

The battery cells also have a long shelf-life, as they do not require recharging while in storage and can be left unattended for prolonged periods of time.



# The Commands: delivering advice

From April 2013, the Army, Navy, Air and Joint Forces Commands (the Commands) have taken up their delegated responsibility for the Equipment Programme for the first time, making them responsible and accountable for managing resources and delivering capabilities as never before.

To assist the Commands in managing these new responsibilities, we are delivering supporting research, analysis and impartial advice that identifies what drives the cost of delivering defence and highlights areas that could be targeted to deliver required cost savings.

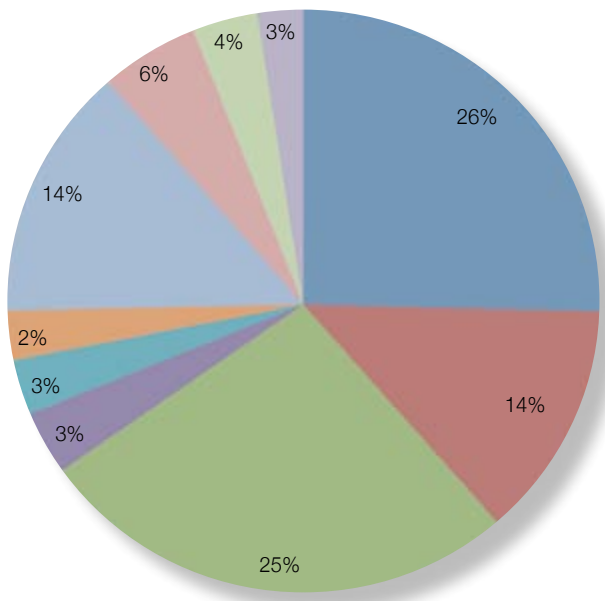
Since the project began in March 2012, a defence costing tool has been harnessed that uses MOD's accounting data and enables the Commands to understand where money is spent. It also provides MOD's Head Office and Finance Director with a coherent understanding of defence cost drivers, as well as the level of MOD's financial, contractual, political and capability commitments. These analyses give the Command Resource Directors and MOD Head Office a consistent picture of their current and future financial commitments and illustrate the interdependencies between programmes.

'Cost Leadership' is now an integral part of Command Plans and is fed into the MOD Financial Management Information (FMI) Project, being run as part of Transforming Defence. There is now greater agreement to use the same set of FMI tools across MOD to create a unified approach to financial modelling. Further collaborative work with industry is seeking to put a financial value on the outputs that defence delivers.

Throughout the study, we identified the best ideas from industry and international collaboration and tailored them to MOD's requirements. This has significantly helped the Commands to improve their cost awareness and implement targeted cost savings. With budgets reducing in the current financial climate, this work represents a means of delivering defence at a reduced cost.



**Income analysis 2012/13**



- Defence S&T Programme: internally delivered
- Defence S&T Programme: internally led, externally delivered
- Defence S&T Programme: external
- Other MOD research
- Policy and other MOD
- Commands
- Equipment and Support (DE&S)
- Defence Intelligence
- Wider Government
- Non-Exchequer

Note: The non-nuclear Defence S&T Programme includes an additional £17 million subcontracted directly to industry and academia by DE&S, which does not pass through Dstl and is not therefore included in this income analysis.

➤ We have a strong reputation with customers for impact and delivery. Meeting customers' needs will continue in the coming years with the appointment of account managers and the implementation of programme management across the Defence S&T Programme in support of Defence Reform. Engaging with new and existing suppliers is key to us as an organisation and this is achieved in several ways including supplier days that allow suppliers to see the full range of opportunities to support S&T, through S&T Centres and the CDE. CDE acts as a bridge linking SMEs to defence suppliers,

as well as to investors and wider Government. This year, it has received more than 1,100 proposals, and funded more than £13 million of innovations (see page 21). We have engaged with industry and academia to promote trust and transparency. These engagement activities provide direct support to the exploitation of private sector innovations, and we will continue to support the Government's prosperity and growth agenda; future work will seek to place an increasing percentage of the Defence S&T Programme externally with industry and academia.



# London Olympics: making an impact

2012 saw the culmination of our four-year input to a cross-Government team that provided evidence-based advice and analysis to the London Organising Committee of the Olympic Olympic and Paralympic Games (LOCOG), to wider Government and to police stakeholders.

A team comprising our experts and subject matter experts from wider Government advised on the optimal solution to delivering appropriate and cost-effective processes for screening 11 million Games spectators and 200,000 accredited personnel and vehicles.

During the planning and testing phases, the team developed and delivered advice on the security screening equipment, on the way it would be used, and on the number and layout of screening lanes required at the different venues. This advice was critical to enable LOCOG to establish an optimal screening process through understanding its implementation, the data it would generate and its cost. This advice was underpinned by an extensive programme of process-modelling, experimental testing and analysis of data from numerous test events.

Throughout Games-time, a team of analysts collected data to assess the effectiveness of the screening process across the different venues, which was used to identify and address issues of immediate concern. The legacy of the team's efforts, including the 250,000 data items that were collected, is the development of comprehensive guidance on security screening for a wide range of applications including for future high-profile events.



## Agent detection: collaborating effectively

We and the University of Central Lancashire have been researching ways to improve the detection of Chemical Warfare Agents (CWAs), by contaminating soil samples with chemical agent and cultivating and analysing the plants that grow in it.

Research has found that certain plants, such as the common mustard plant (*Sinapsis alba*), can absorb certain nerve agents from contaminated soil, which can then be extracted from the plant using ethanol.

Vegetation can also act as a time capsule, where key markers of the nerve agents may remain in the plants for up to 28 days, allowing a longer time window for scientists to detect, analyse and identify CWAs.

Nerve agents are extremely toxic substances, banned by the Chemical Weapons Convention (CWC). The CWC prohibits the development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons.

Accurate identification is an essential tool for verification of compliance with the CWC but detection is often difficult as the chemicals can be absorbed by soil or washed away by groundwater.

Matthew Gravett, of our Chemical and Biological Threat Reduction Group, says: "This research will improve our sampling and analysis capability and provide the UK and international scientific community with a more effective way of detecting CWAs."

The UK Designated Laboratory for detecting CWAs has been located at Dstl since the CWC came into force in 1997. Our scientists, in collaboration with those at the University of Central Lancashire, hope to extend this research to look at longer testing times and different soils to improve this detection capability and thereby provide a vital UK contribution to the enforcement of the CWC.

# Our capabilities and skills

Dstl defines capability as a combination of people (their knowledge, expertise and experience); the enabling infrastructure; the knowledge bases; our licences to practice, and the relationships that enhance them. Together these help to make us an agile and interdisciplinary organisation, aligning our capabilities with future defence and security priorities.

Our capabilities are divided into the key capability areas of analysis, systems, cyber, CBR, security sciences, C4ISR (Command, Control, Communication and Computers, Intelligence, Surveillance and Reconnaissance), sensors, human sciences and integrated survivability. We have reviewed the balance across these capabilities to identify the key areas for prioritisation of our internal resources and the areas in which we will seek to enhance our use of external capability.

As we become more reliant on external sources, the relationship component of technical capability has become more important. We have changed our focus on understanding not only our own capability but how it links to and is supported by external capability in industry, academia, other Government laboratories and our international partners.

We have updated our Technical Benchmarking process, which is our approach to assessing the health of our technical

capabilities. We have placed more emphasis on how we understand and work with external capabilities in the internal assessment. In order to maximise the effectiveness of capability development across Dstl, we are using external assessors to review the health of our technical capability.

Knowledge management has been identified as an area of high importance. We have undertaken an external benchmarking study that identified areas for improvement. We have also developed an S&T Knowledge Management maturity assessment tool to identify how well S&T knowledge is shared, managed and exploited across MOD.

Last year, we developed the DIET (Defence Impact of Emerging Technologies) programme to identify, assess and exploit emerging technologies, and this has resulted in a greater emphasis being placed on our longer-term view of capability.



# Technical benchmarking: developing capability

MOD has an increasing demand for System Engineering (SE) skills to support defence acquisitions, now and in the future.

For us, this meant the need for an independent validation of our SE capabilities to ensure the skills and knowledge of our System Engineers were of the highest standard and on a par with external organisations.

To do this, we ran a series of assessments, managed by our Information Management Department, as part of a pilot to benchmark our SE capabilities against our peers within Government.

The assessments were made against an industry standard, the International Council on Systems Engineering (INCOSE) UK Competencies Framework, and were undertaken by senior system engineers from Government organisations, including DE&S, Her Majesty's Government Communications Centre (HMGCC) and the Government Communications Headquarters (GCHQ).

The assessments were designed to identify the level of our expertise and were carried out on both an individual and a team basis to measure the consistency of knowledge and skills across the organisation.

The results found that our System Engineers were technically knowledgeable and that their skills met customer needs and requirements, and were comparable overall with SE capabilities in other Government organisations.

The pilot was a success and showed that the benchmark approach could be confidently applied across Dstl. External assessors also validated the individuals' self-assessment scores, providing the foundation for a development programme to build our SE capabilities of the future.



# Our people

In this year's Civil Service People Survey (Have Your Say), we recorded an Employee Engagement score of 62 per cent, four per cent higher than the Civil Service norm but one per cent below the score for Civil Service high performers. The 62 per cent outcome was a drop of one per cent from the previous survey. There were falls against a number of the 'drivers of engagement' recorded in the survey, the largest being in staff satisfaction with pay and benefits.

Sixty-seven per cent of our people are proud to tell others they are part of Dstl and they continue to be highly motivated by what they do, with 94 per cent saying they find their work interesting.

Our learning and development remained very well regarded by staff who ranked us six per cent higher than the top Civil Service performers. This year, we introduced workshops to help staff get the most from their performance discussions and next year we intend to do more to support managers in this area. Our commitment to learning and development translates into an increase in the skills and competencies of our staff – we rate 13 per cent higher than the highest performing Civil Service organisations for opportunities to develop a career and, indeed, 344 employees secured a promotion in 2012/13.

We were one of the first organisations to take applications through the newly implemented online Civil Service Learning (CSL) process, and we have contracted for, designed and piloted training and development programmes in a variety of areas including technical consulting, and leadership and management especially when supporting change. We have worked with CSL to create a blended programme that utilises the CSL offering as well as meeting our specific requirements. This has included publishing a Line Managers' handbook to bring people policies to life.

As part of talent management and succession planning, we introduced a programme of experiential opportunities for developing our aspiring Department Managers and Heads of Function. We improved our recruitment campaigns for Team Leaders (TLs), which resulted in 40 successful appointments, and in parallel we launched a new development programme to develop TL skills, knowledge and competencies.

Following the establishment of the MOD-wide Steering Group to support the Science and Engineering profession last year, our Chief Executive, Jonathan Lyle, as MOD's Head of Science and Engineering Profession (HoSEP), held an event to launch our role in championing and developing S&T skills across

MOD. Since then, we have worked with DE&S to identify ways of sharing recruitment and development, particularly for graduates and apprentices, and to expand the role of mentoring across organisational boundaries. We provided significant support to Government Office for Science (GO-Science) in formulating a cross-Government Science and Engineering view to inform the development of Civil Service Reform and, later, its implementation proposals. We have also actively contributed to the development of the new cross-Government Science and Engineering career framework.

The importance of interchange with MOD, wider Government, industry and academia has long been recognised to be a critical element of strengthening relationships, and building our capability. At year end, we had 92 people on secondments as part of a much larger number of people working off-site at any one time and, this year, we welcomed 38 inward secondees.

Organisational agility and a diverse workforce is vital to our success. In addition to the introduction of Employee Support Networks and Fair Treatment Advisers (see opposite), all of our managers have been tasked with completing an Equality and Diversity E-Learning package to increase understanding of the benefits that this approach brings. The employment, training, career development and promotion of disabled people is covered in our general policy and approach to Equality and Diversity. We recognise the uniqueness of each of the protected characteristics with Equality legislation and have a specific Employee Network to positively promote the role of people with disabilities within Dstl. We value the expertise of all our staff whether they are permanent or temporary, contractors or strategic partners, military or civilian. This year, our permanent headcount reduced to 3,460, we recruited 73 permanent staff and 213 Fixed-Term Appointments. Resignation rates remained low at 4.9 per cent.

We have strengthened our links with the Civil Service Employment Policy Team this year, who are helping us to review our Terms and Conditions to reflect best practice and the position of a modern employer. Among other areas, we have been closely monitoring our sickness absence processes and increasing the support we offer managers to implement them; our sickness absence rate continued to remain low at an average of 4.71 days per person per year.



## Employee Voice: encouraging diversity

The past two years have seen us actively encouraging participation in the decisions we make and the resolution of issues in the workplace. Our Trade Union (TU) relationships remain really important to us and we have developed their participation in all of the major projects that affect staff.

We have also encouraged the Employee Voice to be heard through alternative channels that complement our TU relationship. This year, we created Employee Engagement Champions, Fair Treatment Advisers and Employee Support Networks.

Engagement Champions are directly helping Department Managers and Heads of Function to interpret what is important to staff, and to design and to monitor local action plans for the annual Civil Service People Survey (Have your Say (HYS)). Fair Treatment Advisers are staff members who have been trained to help understand and empower people to informally resolve issues where they feel they may have been unfairly treated.

Employee Support Networks help us to understand the needs of minority groups and to examine any barriers to progressing our equality agenda; more than 100 people are contributing to the five networks and their input is encouraged and valued by the Executive. We were pleased to see that creating a more-inclusive culture resulted in a 15 per cent increase (in HYS) in people saying that they were willing to challenge the way things are done in Dstl.



## Visiting Professor: engaging with academia

Peter Brown, a Principal Scientist with our Physical Sciences Group, is one of several Dstl employees who are also Visiting Professors at leading UK universities. Peter is a Visiting Professor at Imperial College London and Queen Mary, University of London, where he helps to accelerate the academic research undertaken and its exploitation for MOD benefit. Peter believes the research that universities do is vitally important to Dstl and MOD, saying: “As a Visiting Professor, I am able to get involved with research from the outset, providing direction, resources and exploitation routes not normally available to academics.”

Dstl invests in academic research to ensure it meets defence requirements and involves industrial partners. This is vital to provide MOD with value for money and to enhance its capability.

Peter’s knowledge of our academic research programme and his network of contacts has led to research being exploited more widely. For example, work on ultra-high temperature ceramics for hypersonic vehicles has led to the UK having the capability to produce ceramic armour components.

“In my dealings with academia I wear many hats”, says Peter. “There are times when I need to cajole people to get things done or ensure that the work is done correctly. Equally, there are occasions when I need to act as a mentor to students seeking advice or support. Putting the right people in contact with one another and creating new research, development and exploitation opportunities, is another important aspect of my role. However, the only thing that allows me to operate in this manner is the way in which, as a Dstl employee, I am perceived as an impartial, trusted partner.”

# Our external networks

Dstl is an important, strategic enabler in MOD. We recognise the importance of engaging widely with our external partners to help to secure our vision to be the first port of call for defence and security-related S&T within Government. This year, our focused strategic relations campaign has further strengthened our networks with some of our most important partners both nationally and internationally.

The 2012 Government White Paper *National Security Through Technology* sets out a number of expectations for us to engage across Government, industry, academia and with other nations. We have prioritised this engagement and implemented a plan to manage our important strategic relationships to ensure that we realise the maximum benefit for defence and security.

Relationship Charters with our key strategic partners are the umbrella under which trusted consideration can be given to strategic capability development, staff interchange and trading performance issues. During 2012/13, we signed charters with the UK Research Councils and the Technology Strategy Board, bringing governance, commitment and a higher tempo to our increasingly important joint activities. Topics of cross-Government interest include signal processing, autonomy, synthetic biology and data intensive systems, as well as a continued contribution to the Global Uncertainties programme.

We have deepened our engagement with universities across the UK and built new connections to leading academics. We have also created a virtual Centre of Excellence in bio-inspired systems with leading universities, as well as providing a basis for the next

generation of defence and security scientists and engineers through our national PhD scheme.

The Defence Suppliers Forum is the major conduit for MOD's relationships with industry, with S&T elements taken forward through the Research and Development Group; we have reframed this interface to ensure the broadest possible reach across industry by aligning with the two key trade associations, Intellect and ADS.

Working with international partners remains a core part of our role. As well as our long-standing partnerships with the US, France, Canada and Australia, we are further developing our relationships with new and emerging partners. In 2012/13, we signed a number of cooperative project arrangements with India and a Letter of Intent with Japan that will facilitate enhanced cooperation in the future.

Government policy on wealth creation highlights the importance of science and innovation as the keys to growth in a developed economy. We have an important role to play: founded on the partnerships detailed above, many of our activities contribute to UK wealth creation. ➔



## CBR test facility: partnering internationally

Chemical, Biological and Radiological (CBR) Memorandum of Understanding (MOU) nations (UK, Australia, Canada and the US) need to be able to effectively exchange CBR information across international boundaries in joint and combined operations. In addition, all CBR nations require their Information Systems to provide consistent CBR situational awareness to commanders on the ground. The technical challenge of sharing information in this way is immense.

We are working with international partners to establish a CBR Information System test facility, which has involved each member nation establishing its own CBR Information System test laboratory with network connectivity to the other nation laboratories. The UK's test laboratory was established within Dstl's Information Superiority Experimentation Laboratory (ISEL) at Porton Down.

The facility was first used in September 2012 with an experiment to analyse if the various nations' CBR information systems utilised common software requirements, in line with NATO policy, and to examine the interoperability of the systems.

The results of the initial test were used to identify current issues regarding interoperability and the consistency of outputs. A project plan of future activities has been developed to overcome these challenges.

The facility will continue to be a key tool in the verification and validation of the nations' CBR Information Systems, with future tests planned to evaluate current and emerging capabilities. It is hoped that it will improve the exchange of CBR information internationally, and in turn save money long term by sharing knowledge across nations and working collaboratively to find solutions for improvement.



## Biological sampling: realising benefits

Biological Sampling Devices that are currently fielded do not integrate sampling with detection and are not easy to use with protective clothing.

To solve this problem, we created and developed a biological sampling and detection device that is expected to have commercial success both in the UK and abroad.

The sampling device, created by Dr Peter White, of our Biological Sciences Group, enables the rapid testing of up to eight substances simultaneously, from materials such as powder, liquids or surfaces, and can be used in the field by a generalist operator.

Peter says: "This invention combines an established detection technology (similar to that used in pregnancy test kits) into an integrated hand held device that could be used by an operator on the front line."

Ploughshare Innovations Ltd, Dstl's technology transfer company, has licensed the sampling device technology to BBI Detection Ltd. BBI Detection currently develops and manufactures bespoke detection devices for the security sector and will launch the sampling device commercially under the name IMASS (Integrated Multiplex Assay and Sampling System). It is hoped the device will have a wide customer base after interest from overseas markets, including the USA.

The device has a number of potential applications, including surface testing for food allergens or illegal drugs, as well as in the areas of forensics and security. It is a strong example of product development for defence and security application, while growing UK business and supporting our international partners.

We also obtained additional funding from MOD to develop an IMASS device specifically to detect explosives and from the Home Office for a next generation device, capable of genetic tests for pathogens.

The Interlab community comprises:

- Defence Science and Technology Laboratory (Dstl)
- Food and Environment Research Agency (Fera)
- Centre for Environment, Fisheries and Aquaculture (Cefa)
- Health and Safety Laboratory (HSL)
- Public Health England (PHE)
- Animal Health and Veterinary Laboratories Agency (AHVLA)
- Home Office Centre for Applied Science and Technology (CAST)



Elsewhere, we are proactively supporting responsible exports through advice and support to UK industry and foreign governments, in line with Government policy. We have developed a framework for decision-making in support to exports, and are investigating the benefits of designing in exportability for requirements placed with industry.

In 2012/13, we began work to support Wiltshire Council with plans to develop a Science Park at Porton Down. As part of these plans, our existing Science Park would be relocated outside the security fence to further support local development and economic growth. This has the potential to become one of the most important centres for joint public/private scientific and technological research and development in the UK.

We continue to collaborate with our Interlab partners (see above) to explore novel approaches to national challenges. Through the Interlab partnership of seven Government research laboratories, we have established a collective approach to the role of Public Sector Research Establishments (PSREs) in supporting growth, and have strengthened our links with policy leads for wealth creation.

Ploughshare Innovations Ltd is Dstl's wholly owned technology transfer company. Since 2005, Ploughshare has licensed more than 75 new technologies to industry and launched a number of spin-out companies in civilian applications, as well as negotiating licences in the defence field resulting in research being pulled through into capabilities and off-the-shelf products. Ploughshare is actively exploring opportunities to exploit wider Government Intellectual Property (IP), and examining options for significantly improving the funding for the commercialisation of IP.





# Science Gateways: providing support

Transforming Defence is the most significant MOD change programme in a generation. The new Defence Operating Model defines S&T as an enabler. It also defines four Command areas that are responsible for setting equipment and support requirements – they have been looking to enablers such as Dstl to support them.

While we have been supporting the Commands for many years, we recognised the need to embed a number of S&T posts, known as Science Gateways, within the Commands during 2012/13. To complement the Science Gateways, we hosted a one-day showcase at Army Headquarters, Andover, in October 2012. Our scientists, supported by a number of industry partners, highlighted the importance of S&T research in defence, with various displays of kit and equipment.

Senior Science Gateway for the Army Command Mike Green said: “My role is all about understanding the Army’s S&T needs, now and in the future, and providing technical advice and support. With that understanding, I can reach out across the wider S&T community within Government or across industry and academia to anticipate, plan and implement the Army’s requirements.”

Mike and his colleagues will also be able to call on support from other Science Gateways, S&T teams within other Commands and areas of MOD such as DE&S to ensure a coherent and focussed research programme.

Through events such as the one-day showcase and embedded support, we can demonstrate to MOD just how and where S&T is enabling MOD to save money and lives. This is particularly evidenced through our role in developing programmes of work and our contribution to the development of the equipment and analysis being used on the front line today.

Other recent S&T showcases have included an event at MOD Head Office in December 2012, which was hosted by the MOD’s Chief Scientific Adviser and jointly supported by industry and Dstl. A series of showcases for the other Commands is planned for 2013.

## CDE: accessing innovation

The 2012 Government White Paper *National Security Through Technology* reaffirmed the importance of the CDE mission and broadened its remit to cover both the defence and security sectors. It also sought to provide more support to SMEs in the development of routes to market for their technology innovations.

Since CDE was established in May 2008, it has received more than 4,100 research proposals, with around 700 selected for funding, resulting in a total contract value of £39 million. It has also delivered a number of major initiatives:

- The launch of the ‘CDE Marketplace’ concept, which enabled 13 CDE-funded technology innovators to highlight their success to a specially invited audience of key decision makers from the world’s biggest defence and security companies; nine companies have confirmed follow-up meetings with defence contractors and four are expecting new work contracts as a result of their exposure at the CDE Marketplace event.
- Delivering the first publicly marketed Themed Call for MI5, GCHQ and the Home Office. The ‘Finding the Threat’ competition attracted a record number (174) of proposal submissions to a CDE competition.
- Enhancing support to SMEs in understanding defence needs through advance publication of the CDE call and event programme; using web-based technology initiatives to broaden CDE’s ‘open engagement’ reach, and a massive expansion of the successful CDE ‘surgery’ appointments system.

CDE funds research into novel, high-risk, high-potential-benefit innovations and offers two routes to funding – the Defence Open Call and a series of Themed Calls for proposals that address particular defence and security challenges.

Working with the broadest possible range of S&T providers and often providing an entry point into MOD for those new to defence, CDE aims to remove barriers for SMEs to enter the defence supply chain. More than two-thirds of CDE contracts go to SMEs and innovators within academia, providing a vital mechanism for defence to access their fresh thinking and capabilities.

Through working with suppliers and in particular SMEs, CDE is supporting the growth of UK business and helping to broaden the capability base in readiness for future requirements.

# 5

Section

# Our working environment

Dstl recognises the need to provide an optimum working environment where staff can have access to appropriate facilities and infrastructure. This is challenging during times of financial austerity and economic pressure but we continue to drive efficiency and improve our working environment, making better use of the assets that we have and providing a vibrant environment in which to work.

Following the 2011 announcement to relocate our operations from our site at Fort Halstead (the Helios Programme), we have begun adapting our office environments to introduce flexible desking to allow us to utilise our office space more efficiently. This key change reflects Cabinet Office guidelines whereby staff will share eight workstations per ten employees.

In January 2013, we issued posting letters to our staff who are due to relocate to our site at Portsmouth West informing them of their new place of employment from February 2014. As well as preparing Portsmouth West for their arrival, we are proactively supporting staff and their families who are affected with a dedicated people relocation service, building on our previous and successful similar relocation experience.

The process to design the new and adapted facilities to accommodate Fort Halstead's operations at Portsmouth Down is now under way, with a clear aim to minimise the outlay of capital in providing new facilities and integrate fully with the Portsmouth Down site.

Throughout the past year, we have undertaken a number of assessments of our approach to business resilience. Moving

the Fort Halstead capability to Portsmouth Down changes the use and risks on the Portsmouth Down site and we are working closely with the Local Resilience Forum to ensure that we are ready for our future obligations to both our staff and the local community.

Our steadfast and committed approach to improving our health and safety culture has continued to reap benefits. In 2012/13, we introduced our Safety, Health, Environment and Fire (SHEF) House metaphor to help visualise the concept of our safety culture as being supported by key elements of our safety management system. We have used our SHEF House to assess our progress in attaining MOD targets for safety and environmental protection, as detailed in the MOD Safety Sub-Strategy. Following two reviews during the past year, we achieved Level 4 on the MOD cultural maturity matrix for four of the five goals, and Level 3 against the remaining goal. We have met MOD's target for Level 4 maturity by March 2013 and we are well positioned to meet the remaining target of attaining Level 5 of the six levels by March 2015.

We have a good culture of reporting incidents and our accident rates are very low, with our reportable accident level of 0.06 per 100,000 hours worked.

# Centre of Excellence: working together

Our joint proposal with Public Health England (PHE), formerly the Health Protection Agency, to establish a joint Centre of Excellence (CoE) for high-containment microbiology has been endorsed by the National Security Council. A review of the UK Government's S&T providers, undertaken by GO-Science, proposed building on and consolidating our existing strong links with PHE, with the formation of a CoE for high-containment microbiology.

Three CoE models were considered, with the preferred option of a Virtual CoE being approved. The benefit of this option allows us and PHE to maintain our high-containment capability and governance structures but also enables us to work together in identifying opportunities and develop joint capabilities. In turn, this has strengthened our respective programmes of work and has also attracted external investment, reducing the financial liability on the UK Government.

This approach has already enabled us and PHE to work successfully with industry to develop a medical countermeasure, which has proved to be highly effective. Additionally, joint working has also resulted in successful clinical trials to assess the current anthrax vaccine, the results of which will be used to influence vaccination strategy for the UK military.

Progress has been made in other technical areas too, particularly the immunology and bioimaging areas through sharing technical knowledge and expertise. The joint use of highly specialised high containment facilities and bioimaging equipment will ensure the best use of our unique capabilities for the delivery of high-quality S&T research in the future.



In terms of our Knowledge and Information, our focus for the year has been on improving the core Information Services (IS) infrastructure that underpins our systems in order to improve performance, bringing our ageing IS up to date, and focusing on the capture and exploitation of our knowledge base within Dstl. We successfully introduced new TelePresence video conferencing, received Cabinet Office approval to refresh our laptops, and agreed our Knowledge and Information Strategy, which includes how we will share our knowledge with our supply base.

We appointed a new Chief Procurement Officer to develop our Procurement Strategy to focus on Key Supplier Management, and to simplify our approach to working with SMEs and our broader supplier base. We conducted benchmarking exercises to review our performance against similar organisations as part of continuous improvement and our aim to move to the CIPS (Chartered Institute of Purchasing and Supply) Certification Standard. We remain committed to increasing the proportion of work that we do with external suppliers and simplifying the way in which we contract with them.



# Our sustainability

We recognise that managing the impact of our activities on the communities with which we engage and on the wider environment in which we work is important to sustaining our success. We take responsibility for what we do at work so that we can build a sustainable future for each other, for our community and for our environment. Some highlights from the past year include:

## Travel

Our 12 TelePresence rooms continued to reduce the number of business trips between Dstl's core sites by more than 5,000, saving more than £294,000 in business travel expenditure and freeing up almost 17,500 hours of staff resource.

## Environmental

Our sites at Porton Down, Portsdown West and Fort Halstead continue to maintain an Environmental Management System (EMS) in conformance with ISO14001:2004. With evidence sampled in surveillance visits in March, July and December 2012, the EMS remains effective at preventing pollution and ensuring legal compliance, with various examples of good practice and continual improvement. More details are available in the Dstl Sustainability Report on page 72.

## Charity

We have raised £23,561 and £1,608 for Help for Heroes (H4H) and the Royal British Legion respectively, through a range of events including a Colossal Cake Sale, a Superhero Day and a Halloween Spooktacular. We are grateful to all our staff for the support they continue to provide our chosen charities.

## Education Outreach

Our STEM (Science, Technology, Engineering and Maths) Ambassador Scheme also continues to be well supported. This year, STEM Ambassadors have supported a variety of activities across our three main sites. For example, they have:

- supported Sarum Academy in Salisbury with its whole-school writing competition. Advice was shared for communicating science when the competition was launched in January and we went on to judge the science category that was open to all students and staff.
- launched a project on flight for the Year 7 after-school STEM club at Trafalgar School in Downton, Wiltshire, helping the students to understand the principles of flight and to apply their new knowledge by making and testing paper aeroplanes.
- helped A Level Design and Technology students at Judd School in Tonbridge, Kent, with a 3D printing project, supporting the students as they built two 3D printers that they then used to design and print chess pieces.

# TelePresence: respecting the environment

We have 12 Cisco TelePresence suites on our three main sites, which foster more efficient collaboration between sites, decrease the need for staff to travel between sites and reduce our financial and environmental burden. This 'virtual' face-to-face interaction also helps us to avoid miscommunication and allows people to feel more included in decision-making and collaborative projects across operational departments and support functions.

For managers, it can be hard to gauge whether key messages have been received and understood by staff located on other sites. Using the TelePresence facilities, everyone, regardless of their location, can see and experience the same organisational messages, and more importantly, feel part of a cohesive company culture.

Using high-speed connectivity, our TelePresence suites are designed to be used for internal (Dstl-to-Dstl) meetings connecting all core sites and up to 12 rooms at the same time.

We are currently investigating opportunities to extend our TelePresence capabilities to link to customers within other parts of MOD, wider Government, home and abroad, freeing up travel resources for additional S&T.



## Materials research: sharing knowledge

The UK was at risk of losing its capability and expertise in the research of advanced materials for defence purposes.

To prevent this from occurring, we placed a contract with QinetiQ to fund a three-year research programme to maintain the UK's capability. The funding, worth £11.7 million, was awarded as part of our Materials And Structures Technology (MAST) Science and Technology Centre (STC) and has been granted to a QinetiQ-led consortium including Malvern Optical Ltd, BAE Systems, MBDA, NPL, Q-Par Angus and several UK universities.

The funding has allowed QinetiQ and its partners to establish a world-class facility, primarily sited in Farnborough and Pershore, which will allow companies from around the UK to conduct research and test new materials. Ultimately, these materials will be used to protect the UK's Armed Forces.

The facility, which was established in March 2012, will act as a national hub for the materials community, enabling vital collaborative work among our MAST STC members from around the country to meet the UK's current and future defence needs.

# Our governance

## Non-Executive Directors



**Sir Richard Mottram** – Chairman  
Appointed to the Board 01 August 2008

Sir Richard is also Chairman of Amey plc, Vice-Chairman of The Ditchley Foundation, a Board Member of Ashridge Business School and a Visiting Professor at the London School of Economics. He was formerly a civil servant and was a Permanent Secretary from 1992-2007, with roles including in the Office of Public Service and Science, MOD, and in the Cabinet Office with responsibility for intelligence and security (including as Chairman of the Joint Intelligence Committee). Sir Richard spent much of his earlier career in MOD working on defence strategy and policy, and corporate planning of the defence programme.



**Elisabeth Astall**  
Appointed to the Board 01 September 2009

Elisabeth was the former UK Managing Director of Accenture UK where she specialised in serving Government clients, including the NHS, the Home Office and the Department of Social Security. She also has extensive experience in the private sector, working with clients such as Rolls-Royce, British Aerospace and British Steel. Elisabeth is a Non-Executive Director at Digital Jersey, a Trustee of the Social Mobility Foundation and a member of the Council of the London School of Economics. She also sits on the Dstl Helios Programme Board.



**Gerard Connell**  
Appointed to the Board 01 October 2011

Gerard is the Senior Independent Non-Executive Director and Chairman of the Audit Committee of Pennon Group Plc. He is also an Independent Director of The Nuclear Decommissioning Fund Company Ltd. Gerard has also been Group Finance Director at Wincanton Plc, a Regional Director of Hill Samuel Bank and a Managing Director of Bankers Trust Company. He is also a Governor of King's College School, Wimbledon, and a member of its Governors' Committee. As well as his Board role, Gerard is Chairman of Dstl's Audit Committee.

## Our Board of Directors as at 31 March 2013



### **Dame Wendy Hall**

Appointed to the Board 01 June 2012

Wendy is Professor of Computer Science at the University of Southampton and Dean of the Faculty of Physical and Applied Sciences. She was Head of the School of Electronics and Computer Science from 2002 to 2007. Wendy became a Dame Commander of the British Empire in the 2009 UK New Year's Honours list and was elected a Fellow of the Royal Society in the same year. Other significant posts that she has held include President of the Association for Computing Machinery, Senior Vice President of the Royal Academy of Engineering, member of the Prime Minister's Council for Science and Technology, founding member of the European Research Council, member of the Engineering and Physical Sciences Research Council (EPSRC) and President of the British Computer Society.



### **David Grant CBE**

Appointed to the Board 01 June 2012

David is Chairman of STEMNET (Science, Technology, Engineering and Mathematics Network) and is a Non-Executive Director of Renishaw plc and Senior Independent Director of IQE plc. He has been a Governing Board member of the Technology Strategy Board since 2007. He was Vice-Chancellor of Cardiff University from 2001 to 2012 and previously held leadership positions in a number of international businesses including Dowty Group plc and GEC plc. He was a Vice-President of the Royal Academy of Engineering from 2007 to 2012. In 1997 he was made a CBE for his contribution to the UK's Foresight Programme. He has a PhD in Engineering Science from the University of Durham.



### **Carole Tolley**

Appointed to the Board 01 May 2012

Carole is MOD's Director of Resources for Head Office and Corporate Finance, with responsibility for MOD's Financial Management Policy and Accounting Team, Business Strategy and Governance Team and the Finance and other resources of MOD's Head Office and Corporate Services organisations. She was previously Director of MOD's Central Top Level Budget; Director of Scrutiny, with responsibility for MOD's internal approvals and scrutiny process; and MOD's Director Financial Management. Carole joined MOD as a Fast Streamer. She sits on the Dstl Board as the MOD Non-Executive Director.

## Executive Directors



### **Jonathan Lyle**

Chief Executive

Appointed to the Board 01 March 2010

Prior to his appointment as Chief Executive, Jonathan was Dstl's Director Programme Office. Previous roles in MOD have included Director Helicopters at DE&S, Director of the College of Management and Technology at the Defence Academy and Operations Director at the Defence Procurement Agency. Earlier in his career, he worked in the Cabinet Office and the Department of Trade and Industry on cross-Government S&T policy and its implementation. He is a Chartered Engineer and a Fellow of the Institution of Engineering and Technology.



### **Peter Thompson**

Deputy Chief Executive

Appointed to the Board 04 January 2012

Peter is responsible for setting Dstl's corporate strategy and overseeing its governance arrangements, strategic relations and corporate communications. Previously, Peter worked as the strategic adviser to MOD's Chief Scientific Adviser, leading the scientific contribution to Defence Reform, MOD's S&T Strategy for Defence and the 2012 Government White Paper, *National Security Through Technology*. Peter has also had roles as Dstl Programme Director (Security Science and Technology), helping to set up the Dstl Programme Office in 2010, and as Head of MOD's Counter Terrorism S&T Centre.



### **Richard Brooks**

Director Programme Office

Appointed to the Board 03 April 2012

Richard is responsible for the planning, formulation and delivery of the Defence S&T Programme. He joined Dstl from the United Kingdom Hydrographic Office, where he was responsible for the operational delivery of maritime safety information to the British Government and the world-wide maritime community, with executive responsibility for Corporate Services. Previously, Richard held a number of senior posts within MOD, including within the Defence Logistics Organisation and Defence Procurement Agency. He joined MOD in 1983 as a member of the Royal Corps of Naval Constructors.



**Mark Alexander**

Finance Director

Appointed to the Board 07 December 2009

Mark joined Dstl from Ordnance Survey, where he was Director of Finance. He has more than 25 years' experience in all aspects of financial management in the public and private sectors. Mark has also held senior roles at the construction group Bovis Lend Lease, train operator Laing Rail and in the technology sector at AEA Technology.

**Barbara Busby**

Human Resources Director

Appointed to the Board 23 May 2009

Barbara joined Dstl as Head of Organisational Development in 2005. Previously, she had filled a number of strategic HR roles in the public sector, including Organisational Development Manager at the Environment Agency and Employee Development Manager in the electricity sector. Originally trained as a psychologist, Barbara started her career as a research engineer at British Aerospace before moving into HR on secondment.

## Dstl Board and Executive as at 31 March 2013

### The Board

The Dstl Board is responsible for supporting and constructively challenging the Dstl Executive in the development of business strategies, plans, business cases and targets, and for monitoring Dstl's business performance against our approved Corporate Plan.

Sir Richard Mottram	Non-Executive Chairman	-
Elisabeth Astall	Independent Non-Executive Director	-
Gerard Connell	Independent Non-Executive Director	-
Dame Wendy Hall	Independent Non-Executive Director	Appointed 01/06/2012
David Grant	Independent Non-Executive Director	Appointed 01/06/2012
Carole Tolley	Non-Executive Director	Appointed 01/05/2012
Jonathan Lyle	Chief Executive	-
Peter Thompson	Deputy Chief Executive	-
Richard Brooks	Director Programme Office	Appointed 03/04/2012
Mark Alexander	Finance Director	-
Barbara Busby	Human Resources Director	-

### The Executive

The Dstl Executive is responsible for Dstl's day-to-day leadership and management and for ensuring that the strategic direction of the organisation is appropriate to meet the scientific requirements of Dstl's customers and to deliver its targets.

Jonathan Lyle	Chief Executive	-
Peter Thompson	Deputy Chief Executive	-
Richard Brooks	Director Programme Office	Appointed 03/04/2012
Mark Alexander	Finance Director	-
Barbara Busby	Human Resources Director	-
Graham Balmer	Director Infrastructure	-
Andrew Bell	Chief Technical Officer	-
Jennifer Henderson	Operations Director	-
Mark Fulop	Programme Director Security Science and Technology	-
Christopher Gibson	Programme Director Defence Capabilities and Systems	-
Robert Eason	Programme Director Technology Exploitation	Contract ended 14/09/2012
Heather Goldstraw	Head of Technology and Delivery	Appointed 14/01/2013

# Directors' remuneration report

## Remuneration policy

The following remuneration policy refers to the employment of its Directors. Three Directors employed during the year are Senior Civil Servants (SCS) and subject to SCS terms and conditions, including the remuneration policy. Their bonus arrangements fall under SCS rules rather than the Dstl performance-award system. There is a fourth Director who is an SCS member but she is employed and paid by MOD. Her remuneration is set by MOD.

The remaining Executive Directors are Dstl employees and are subject to the same performance-related remuneration policy as all other Dstl staff. The Non-Executive Directors are not Dstl employees but, apart from one who is employed by MOD, they are paid a fee for their services.

## Performance conditions

Directors who are subject to SCS terms and conditions are also subject to the SCS performance conditions. The remaining Executive Directors are subject to the Dstl performance management rules.

## Service contracts

The Constitutional Reform and Governance Act 2010 requires Civil Service appointments to be made on merit on the basis of fair and open competition. The Recruitment principles published by the Civil Service Commission specify the circumstances when appointments may be made otherwise. Unless otherwise stated, the officials named in this report hold appointments that are open-ended. Early termination would result in the individual receiving compensation (except in cases of misconduct) as outlined in the Civil Service Compensation Scheme.

Further information about the work of the Civil Service Commission can be found at [www.civilservicecommission.org.uk](http://www.civilservicecommission.org.uk)

There were no awards made to past senior managers.

## Dstl Board Directors' remuneration (excluding pension arrangements)

This information is subject to audit.

Name	Salary band 2012/13 £'000	Salary band 2011/12 £'000	NCPA* 2012/13 £'000	NCPA 2011/12 £'000	Fee 2012/13 £'000	Fee 2011/12 £'000
Sir Richard Mottram					35 - 40	35 - 40
Elisabeth Astall					15 - 20	20 - 25
Gerard Connell					15 - 20	5 - 10 15 - 20
Dame Wendy Hall <sup>1</sup>					15 - 20 15 - 20	
David Grant <sup>2</sup>					15 - 20 15 - 20	
Carole Tolley <sup>3</sup>						
Jonathan Lyle	100 - 105	90 - 95				
Peter Thompson	80 - 85	85 - 90	5 - 10	5 - 10		
Richard Brooks <sup>4</sup>	80 - 85 80 - 85					
Mark Alexander	90 - 95	95 - 100	5 - 10	0 - 5		
Barbara Busby	70 - 75	70 - 75	0 - 5	0 - 5		

Figures in italics denote full-year equivalent salary/fee

\*Non-Consolidated Performance Awards (NCPAs)

NCPAs have been awarded as indicated for 2012/13. NCPAs are paid based on Performance Evaluation Criteria scores that are awarded in line with the performance management rules. Fees have been paid as indicated for 2012/13.

	2012/13	2011/12
Band of Highest Paid Directors Total Remuneration	£100k - £105k	£100k - £105k
Median Total Remuneration	£35,777	£34,860
Ratio	2.86	2.94

The salary bands set out above relate only to emoluments paid during the period of each Director's membership of the Dstl Board.

No Board members received benefits in kind during the year.

<sup>1</sup> Dame Wendy Hall joined on 01/06/2012.

<sup>2</sup> David Grant joined on 01/06/2012.

<sup>3</sup> Carole Tolley joined on 01/05/2012. She has received no fee; she represents MOD as a Non-Executive Director. This is a related party with which Dstl has material transactions. Please see Related Party Note at Note 27.

<sup>4</sup> Richard Brooks joined on 03/04/2012.

Dstl is 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 banded remuneration of the highest-paid director in Dstl in the financial year 2012/13 was £100k - £105k (2011/12: £100k - £105k). This was 2.86 times (2011/12: 2.94) the median remuneration of the workforce, which was £35,777 (2011/12: £34,860).

In both 2011/12 and 2012/13, no employees received remuneration in excess of the highest-paid director.

Total remuneration includes salary, non-consolidated performance-related pay, and severance payments. It does not include employer pension contributions, compensation payments and the Cash Equivalent Transfer Value (CETV) of pensions.

### Dstl Board pension provision

This information is subject to audit.

Name	Real increase in pension [and related lump sum at pension age] £'000	Total accrued pension at pension age at 31/03/13 [and related lump sum] £'000	Cash equivalent value at 31/03/12* £'000	Cash equivalent value at 31/03/13 £'000	Real increase in Cash Equivalent Transfer Value as funded by employer £'000
Jonathan Lyle	2.5 - 5	55 - 60	843.0	996.0	73.0
Peter Thompson	0 - 2.5 [2.5 - 5]	20 - 25 [60 - 65]	290.0	317.0	10.0
Richard Brooks	2.5 - 5 [7.5 - 10]	30 - 35 [90 - 95]	413.0	485.0	47.0
Mark Alexander	0 - 2.5	10 - 15	133.0	165.0	16.0
Barbara Busby	0 - 2.5	10 - 15	173.0	209.0	20.0

\*The actuarial factors that are used in the CETV calculation were changed during 2012. This means that the CETV in this year's report for 31/03/2012 will not be the same as the corresponding figure shown in last year's report.

With the exception of Jonathan Lyle and Barbara Busby, who belong to the Premium Civil Service Pension Scheme, all Directors belong to the Classic or Nuvo Civil Service Pension Schemes. All schemes are part of the Principal Civil Service Pension Scheme. See Note 7 to the accounts.

## Executive committee remuneration (excluding pension arrangements)

This information is subject to audit.

Name	Salary Band 2012/13 £'000	Salary Band 2011/12 £'000	NCPA* 2012/13 £'000	NCPA 2011/12 £'000
Jonathan Lyle	100 - 105	90 - 95		
Peter Thompson	80 - 85	85 - 90	5 - 10	5 - 10
Richard Brooks <sup>1</sup>	80 - 85			
Mark Alexander	90 - 95	95 - 100	5 - 10	0 - 5
Barbara Busby	70 - 75	70 - 75	0 - 5	0 - 5
Graham Balmer	75 - 80	25 - 30 70 - 75	0 - 5	
Andrew Bell	70 - 75	70 - 75		5 - 10
Jennifer Henderson	70 - 75	70 - 75	5 - 10	5 - 10
Mark Fulop	70 - 75	70 - 75	0 - 5	0 - 5
Christopher Gibson	75 - 80	75 - 80	5 - 10	5 - 10
Robert Eason <sup>2</sup>				
Heather Goldstraw <sup>3</sup>				

Figures in italics denote full-year equivalent salary/NCPA

\*Non-Consolidated Performance Awards (NCPAs)

NCPAs have been awarded as indicated for 2012/13. NCPAs are paid based on Performance Evaluation Criteria scores that are awarded in line with the performance management rules.

The salary bands set out above relate only to emoluments paid during the period of each Director's membership of the Dstl Executive Committee.

No Executive Committee members, key managerial staff or other related parties have undertaken any material transactions with Dstl during the year.

No Executive Committee members received benefits in kind during the year.

<sup>1</sup> Richard Brooks joined on 03/04/2012.

<sup>2</sup> Robert Eason's contract ended on 14/09/2012. He was an inward seconded from MOD. He was paid by MOD – SCS Pay Band 1 (£58,200 - £117,800). Dstl was invoiced for his services at a total cost of £41,576.70 for 2012/13.

<sup>3</sup> Heather Goldstraw joined the Executive on 14/01/2013. She is an inward seconded from MOD. She is paid by MOD – SCS Pay Band 1 (£58,200 - £117,800). Dstl was invoiced for her services at a total cost of £15,600.00 for 2012/13.

Except for payments made to MOD for the secondment of Robert Eason and Heather Goldstraw, no amounts were payable to third parties for services of a senior manager.

**Executive committee pension provision**

This information is subject to audit.

Name	Real increase in pension [and related lump sum at pension age]	Total accrued pension at pension age at 31/03/13 [and related lump sum]	Cash equivalent value at 31/03/12*	Cash equivalent value at 31/03/13	Real increase in Cash Equivalent Transfer Value as funded by employer
	£'000	£'000	£'000	£'000	£'000
Jonathan Lyle	2.5 - 5	55 - 60	843.0	996.0	73.0
Peter Thompson	0 - 2.5 [2.5 - 5]	20 - 25 [60 - 65]	290.0	317.0	10.0
Richard Brooks	2.5 - 5 [7.5 - 10]	30 - 35 [90 - 95]	413.0	485.0	47.0
Mark Alexander	0 - 2.5	10 - 15	133.0	165.0	16.0
Barbara Busby	0 - 2.5	10 - 15	173.0	209.0	20.0
Graham Balmer	2.5 - 5 [0 - 2.5]	20 - 25 [30 - 35]	265.0	311.0	29.0
Andrew Bell	0 - 2.5 [0 - 2.5]	15 - 20 [50 - 55]	263.0	288.0	6.0
Jennifer Henderson	0 - 2.5 [0 - 2.5]	15 - 20 [45 - 50]	194.0	210.0	4.0
Mark Fulop	0 - 2.5 [0 - 2.5]	20 - 25 [70 - 75]	349.0	373.0	3.0
Christopher Gibson	0 - 2.5 [0 - 2.5]	25 - 30 [80 - 85]	498.0	531.0	4.0
Robert Eason <sup>1</sup>					
Heather Goldstraw <sup>2</sup>					

With the exception of Jonathan Lyle and Barbara Busby, who belong to the Premium Civil Service Pension Scheme, all Directors belong to the Classic, Classic Plus or Nuvos Civil Service Pension Schemes. All schemes are part of the Principal Civil Service Pension Scheme. See Note 7 to the accounts.

<sup>1</sup> Robert Eason's contract ended on 14/09/2012. He was an inward secondee from MOD.

He was paid by MOD – SCS Pay Band 1 (£58,200 - £117,800). Dstl was invoiced for his services at a total cost of £41,576.70 for 2012/13.

<sup>2</sup> Heather Goldstraw joined the Executive on 14/01/2013. She is an inward secondee from MOD.

She is paid by MOD – SCS Pay Band 1 (£58,200 - £117,800). Dstl was invoiced for her services at a total cost of £15,600.00

## Statement of Dstl's and Chief Executive's responsibilities

Under the Section 4(6) of the Government Trading Funds Act 1973, the Treasury has directed Dstl to prepare for each financial year a statement of accounts in the form and on the basis set out in the Accounts Direction. The accounts are prepared on an accruals basis and must give a true and fair view of the state of affairs of Dstl and of its profit, changes in taxpayers' equity and cash flows for the financial year.

In preparing the accounts, 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 the Treasury, including the relevant accounting and disclosure requirements, and apply suitable accounting policies on a consistent basis
- make judgements and estimates on a reasonable basis
- 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
- prepare the accounts on a going concern basis, unless it is inappropriate to presume that Dstl will continue in operation
- disclose that the Directors who held office at the date of approval of this report confirm that, so far as they are each aware, there is no relevant audit information of which Dstl's auditors are unaware; and each Director has taken all the steps that they ought to have taken as a Director to make themselves aware of any relevant audit information and to establish that Dstl's auditors are aware of that information.

The Treasury has appointed the Chief Executive as Accounting Officer of Dstl. 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 Dstl's assets, are set out in Managing Public Money published by HM Treasury.

### Report of protected personal data-related incidents

The Government has made a commitment to enhance transparency with Parliament and the public about action to safeguard information and the results of that action. As part of this process, departments and their agencies are required to

publish details of incidents that have resulted in the unauthorised disclosure of personal data in their annual reports.

An incident is defined as any circumstance (loss, unauthorised disclosure or insecure disposal) of inadequately protected electronic equipment, devices or paper documents either from secure Government premises or outside of secured Government premises; insecure disposal of inadequately protected electronic equipment, devices or paper documents; unauthorised disclosure or any other situation.

Protected data is defined as data that meets the definition of the minimum scope of protected personal data, or data that Dstl considers should receive a similar level of protection because it would put those affected at significant risk of harm or distress. Incidents, the disclosure of which would in itself create an unacceptable risk of harm, may be excluded in accordance with the exemptions contained in the Freedom of Information Act 2000 or may be subject to the limitations of other UK information legislation.

During 2012/13, Dstl has had a single incident resulting in a small-scale unauthorised disclosure of personal information. This incident related to the burglary of a staff member's home and theft of a Dstl encrypted laptop and a hard copy of three staff performance reports. Incident control measures were activated, including the notification of the three staff members affected. The theft has been managed as a civil criminal incident.

Dstl continues its emphasis and commitment to Information Assurance compliance and effective risk management of information risk. Information risk management continues to form an integral part of Dstl routine risk reporting and flows through all governance layers within the organisation. A review of processes for managing Dstl information risks has been conducted in year by the Senior Information Risk Owner, Information Asset Owners and the Project Management community.

Dstl strengthens its assurance and monitoring for key information assurance risk areas as targeted by the Senior Information Risk Owner. The management of the risk balance case process has been reviewed and emphasis has been placed on assessing and reviewing third party risks, and, where appropriate, strengthening controls.



**Jonathan Lyle**  
Chief Executive  
30 May 2013

## Governance Statement

Last year, HM Treasury (HMT) introduced the Governance Statement, to replace and build on the former Statement of Internal Control. This requires that I, Chief Executive Jonathan Lyle, set out in one place all disclosures relating to governance, risk and control. With scrutiny and challenge provided by the Dstl Chairman and our Chair of the Audit Committee, I have aimed to build on last year's statement so that the intended benefits of Governance Statement reporting are more fully realised.

### Corporate Governance

As Accounting Officer, I have responsibility for maintaining a sound system of corporate governance that supports the achievement of Dstl's purpose, role and strategic objectives, while safeguarding the public funds and MOD assets for which I am personally responsible. In doing so, I have ensured that Dstl's governance arrangements are designed to comply with HMT's *Code of Good Practice on Corporate Governance in Central Government Departments* (July 2011). These arrangements are explained in more detail below.

### Dstl's governance framework

Dstl was established as an Executive Agency of MOD in 2001. We operate as a Trading Fund, following both Government and commercial best practice, for which the Secretary of State for Defence has ultimate responsibility. This is in accordance with our Trading Fund Order (updated May 2011).

The Secretary of State for Defence delegates the day-to-day ownership responsibilities for Dstl to the Minister for Defence Equipment, Support and Technology (Min(DEST)) but remains accountable to Parliament for Dstl's overall performance. As such, Min(DEST) is responsible for the majority of the Owner's obligations, including:

- defining Dstl's policy and financial framework
- approving Dstl's strategy and financial objectives
- being satisfied that the Dstl Board is working effectively.

To assist with these duties, Min(DEST) receives advice from the Dstl Owner's Council, which comprises senior stakeholders across MOD under his chairmanship, and from MOD's Business Strategy and Governance team.

As Chief Executive, I am accountable to Min(DEST), and ultimately to Parliament and the Public Accounts Committee, for Dstl's performance. To discharge these duties, I receive delegated authority from MOD's

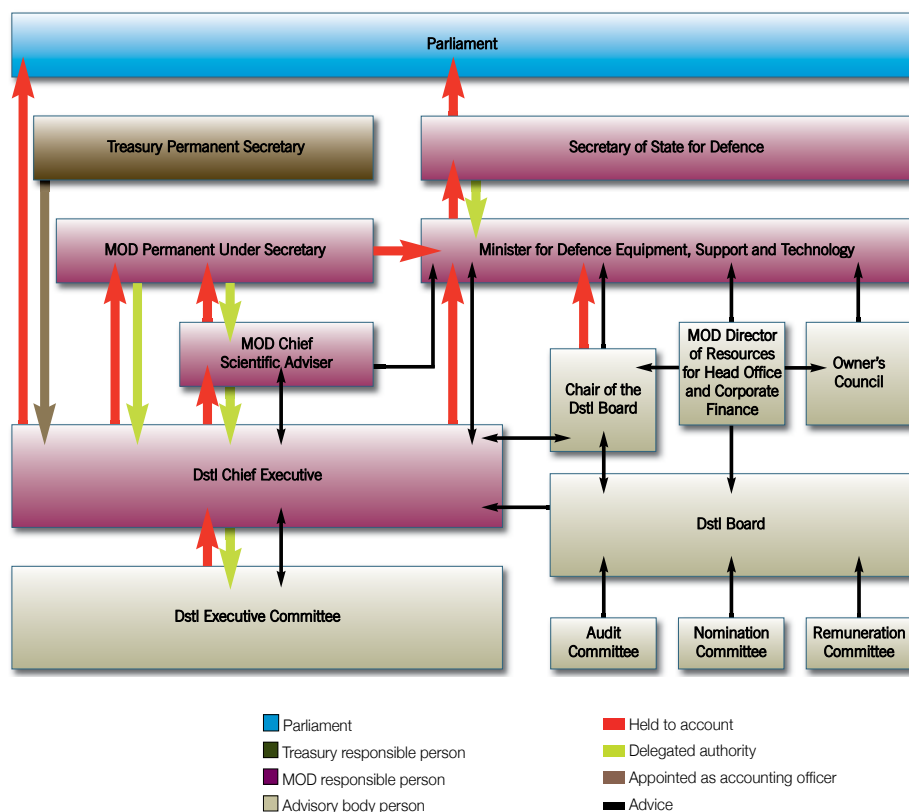
Permanent Under Secretary to manage the financial, audit, fraud, commercial, pay and personnel matters of the Trading Fund. I must also ensure that Dstl adheres to MOD's policies on safety, health and environmental protection, sustainable development and security. I am supported by a team of Executive Directors (the Dstl Executive Team).

The Dstl Board, chaired by Sir Richard Mottram, concentrates on the strategic direction and operational effectiveness of Dstl. Its specific responsibilities include:

- supporting the development of a five-year Corporate Plan and endorsing the Plan for approval by the Owner
- approving the annual Business Plan and Budget and reviewing performance
- approving expenditure proposals within its delegated powers or making recommendations to the Owner where appropriate.

The Board is supported by an Audit Committee, a Nomination Committee and a Remuneration Committee. More information on these sub-committees is provided in the next section.

The governance arrangements described above are documented in our Framework Document (a revised version of which is in the final stages of review) and are depicted below. Overall, I am confident that we have a robust governance framework in place to ensure that Dstl continues to deliver against its purpose, role and strategic objectives.





### Dstl Board and its sub-committees

During the Financial Year (FY), the Dstl Board comprised a Chair, four other Non-Executive Directors (NEDs) with external experience relevant to the work of Dstl, a NED from MOD, me as Chief Executive and four senior Executive Directors. One of the Non-Executive roles was vacant at the beginning of the year and a competition to fill the vacancy led to an appointment with effect from June, together with another appointment to replace a NED who had completed his second term of office. The Board met six times, with the Chair and I present at all meetings. There were high levels of attendance by other Non-Executive and Executive members:

Attendance at Board meetings	Board	Audit C'ttee
Sir Richard Mottram (Chairman)	6 (6)	–
Elisabeth Astall (NED)	6 (6)	3 (3)
Gerard Connell (NED)	6 (6)	3 (3)
David Grant (NED)	5 (5)	2 (2)
Dame Wendy Hall (NED)	3 (5)	–
Carole Tolley (MOD NED)	5 (6)	3 (3)
Jonathan Lyle (Chief Executive)	6 (6)	3 (3)
Peter Thompson (Deputy Chief Executive)	6 (6)	2 (3)
Richard Brooks (Director Programme Office)	6 (6)	–
Mark Alexander (Finance Director)	6 (6)	3 (3)
Barbara Busby (HR Director)	6 (6)	–

Note: David Grant and Dame Wendy Hall's appointments as NEDs both came into effect from June 2012 and Carole Tolley replaced the previous MOD NED, John Neilson, with effect from May 2012.

The Dstl Board has considered a wide range of strategic and operational issues affecting Dstl over the course of the year, as well as reviewing and challenging our performance. Key items discussed included:

- capability planning and the quality and effectiveness of Dstl's outputs
- positioning Dstl with regards to defence and security exports and Civil Service Reform
- enhancing the exploitation of Dstl's Intellectual Property
- optimising the structure of Dstl for current and future roles
- Dstl's financial strategy
- diversity within Dstl
- the Helios Programme to relocate from Dstl's site at Fort Halstead
- Ploughshare Innovations Ltd Business Plan for 2012/13
- Corporate risk reviews
- quarterly business performance reports.

Information on the Dstl Audit Committee is provided later in this statement. Over the past year, the Nomination Committee has met once to consider the structure of the Dstl Executive and Executive membership on the Board. The Remuneration Committee, which comprises a minimum of three NEDs, has also met once to review the performance evaluation of the Executive Directors.

### Dstl Board effectiveness

We continued to implement the findings of the 2011 Board Evaluation Exercise throughout FY12/13, making notable improvements in working with our NEDs to develop strategy and to develop and monitor our non-financial performance measures. We have also developed a comprehensive induction programme and information pack for new members, and continued with our programme of orientation visits and briefs following Board meetings. Finally, we continue to work with our NEDs on matters between meetings, utilising their expertise and experience to best effect.

This year, the internal Board effectiveness evaluation was delayed to November to allow time for our two most recent NED appointees to familiarise themselves with Dstl. The same questionnaire was fielded and the responses analysed and presented to the Board in February. On the whole, there was a positive shift in the results. The main findings for action were:

- The Board should play a strong role in strategy formulation, incorporating both strategy-setting and monitoring/advising on strategy implementation
- The Board agenda should be tailored to the priority issues, which should be explained succinctly through submissions that enable decision making
- The Board should continue to focus upon building relationships with the Executive team
- The Board should continue to focus upon risk management, incorporating due consideration of opportunities into their discussions.

The Board Chair has commented that he believes that the Board has continued to develop constructively, with greater clarity over its role and a more effective challenge function to which the Executive members respond more positively than in the past. There is more mutual respect and confidence between Non-Executive and Executive members. He considers that there is now a good breadth of experience and blend of different outlooks and approaches on the Board.

## Risk Framework

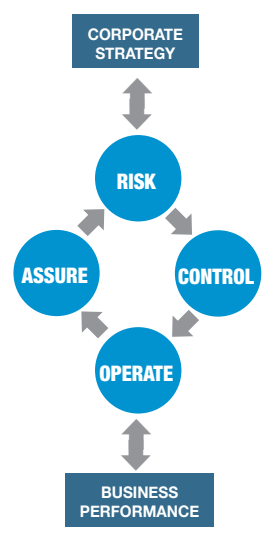
As Chief Executive, I am responsible for informing the Dstl Board of any significant, emerging risks and for ensuring that Dstl's senior managers understand and manage the corporate risks that affect their areas of the business.

Over this financial year, I have directed my Executive Team to focus on improved decision-making through the use of Evidence-Based Decision-Making, in line with wider MOD. Although this is a mid-term objective, expecting to take another 18 months to establish fully, we have already experienced a revitalised Executive Team, in terms of:

- How we decide our long-term strategy to achieve our vision and our shorter-term priorities to deliver in-year
- How we decide what the key risks to the delivery of our strategy are, and what we are going to do about them
- How we decide when and in what way to intervene when our risk landscape changes significantly, for better or worse.

To understand what we need to do differently in order successfully to produce robust and timely evidence, we have developed a simple model that depicts the linkages between the strategy of the organisation, the risks faced as a consequence of adopting the strategy, the ability of the system of internal control to mitigate the risks, the level of operational compliance to the controls (and any effect on business performance), and the assurance of progress in delivering the strategy through the effective monitoring of risk (see adjacent diagram).

Over the next few pages, I will describe the improvements that we



have made to our risk framework, the results I am already observing and our plans for next year. Overall, I am very pleased with our achievements.

I firmly believe that we now have a strong foundation for truly effective and efficient decision-making, leading ultimately to improved business performance.

### Risk-informed strategy

Through our annual strategy exercise, my Executive Team and I identified a gap in our knowledge of the strategic drivers facing the organisation, namely the robust analysis of the likely risk landscape encountered as a result of pursuing particular strategic options. This year, we chose two drivers as case studies, upon which we conducted a proof-of-principle exercise to analyse the effect on our risk landscape of introducing each feasible strategic option. The results informed our decision-making and we are now working to embed the approach into our normal ways of working.

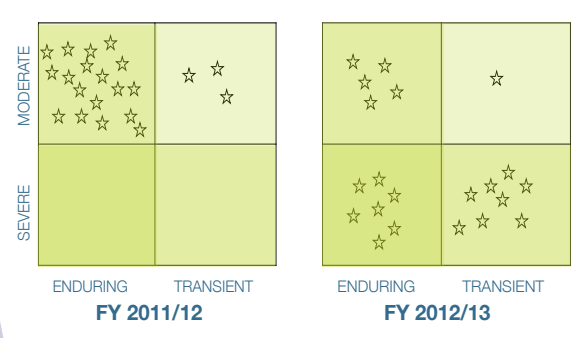
### Risk management

At Dstl, we manage risk to reasonable levels rather than attempt to eliminate all risk of failure to achieve policies, aims and objectives. Therefore, we provide reasonable not absolute assurance of effectiveness of our risk management controls.

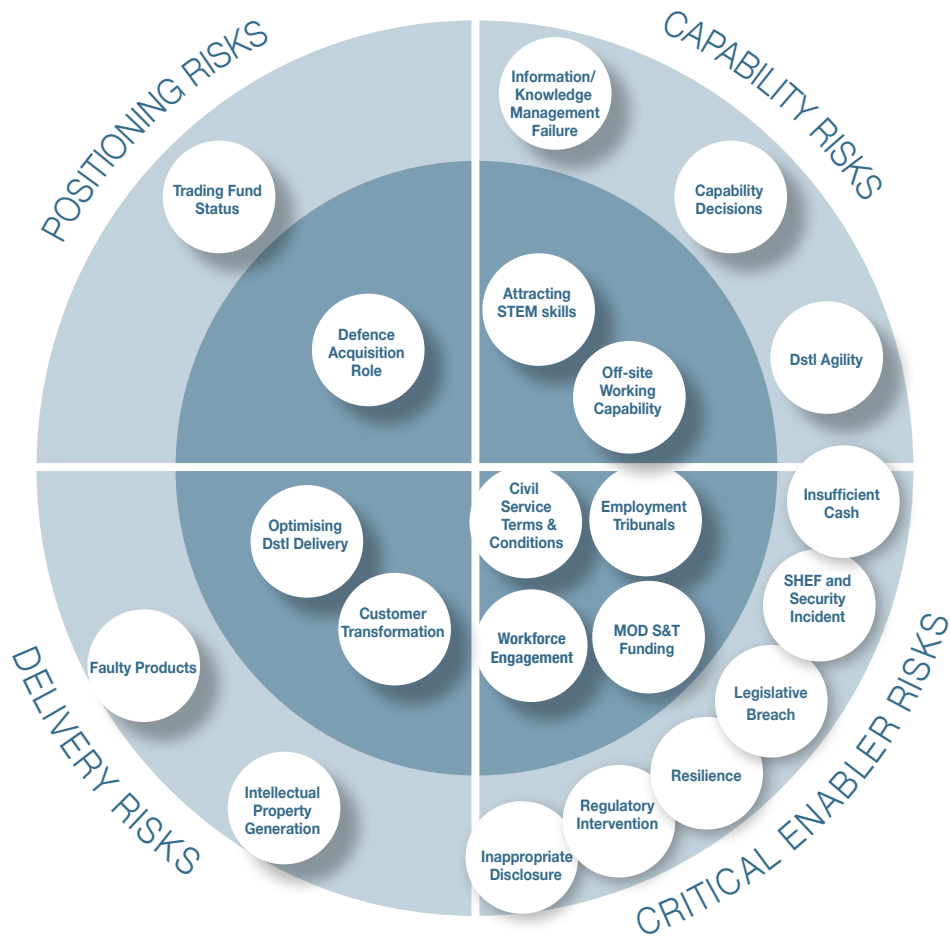
This time last year, my Executive Team was already working towards an improved collective understanding of risk and its effective management, through the strengthening of our own corporate risk process<sup>1</sup> and the governance around it. In doing so, we devised a risk maturity model that is based on good practice, and assessed the business at three levels: Executive, Directorate and Operational. We are currently working to understand where best to focus our efforts over the coming year to achieve our desired overall risk maturity.

## Case Study: Exports

The 2012 Government White Paper *National Security Through Technology* sets out the importance of defence and security exports, which supports the wider Government focus on export-led growth. Government support to defence and security exports carries with it risk, for example the use of UK equipment by Bahrain security agencies during Arab Spring, or the risk of leakage of technology following export. We evaluated a range of different approaches that we could adopt to enable us to support the export agenda, while at the same time minimising the risk of irresponsible exports, or misuse of exported capability. Exports to Malaysia were used as a case study, as a priority country for engagement but with a number of identifiable risks. We agreed the most appropriate way forward in supporting exports, and developed a decision-support framework to enable us to implement that way forward effectively.



**Risk emergence**



I chair risk identification exercises on a quarterly basis at Executive committee meetings. These sessions are focused entirely around debating the effects of uncertainty on our strategic objectives and critical enablers. In re-focusing our effort around our objectives, we have addressed the prior over-population of our Corporate Risk Register by those enduring operational risks that exist because of our role and identified risks that are strategically important but transient in nature (see opposite).

Dstl’s portfolio of corporate risk is now based upon those threats and opportunities associated with the strategy that we have adopted, as outlined in our Corporate Plan 2013-18, and provides a rich picture of where our

decision-making needs to focus. Our Register (as at 31 March 2013) holds a total of 24 risks that have an impact on the delivery of our objectives, of which 21 are threats (shown above) and three are opportunities.

Through improved understanding, I am now confident that my team are successfully managing these risks to tolerable levels. However, I recognise that there is more to do. With the continued support of the Audit Committee, next year will bring the further integration of strategy, risk, reporting and assurance, the robust establishment of a risk-informed agenda to the Executive committee and Dstl Board meetings, increased risk awareness across our workforce, and a better understanding of the management and exploitation of identified opportunities.

<sup>1</sup> Our risk management process is based around the strategic risk cycle, principles and terminology outlined in Management of Risk (issued by HMT in 2004 and updated in 2007), the UK Risk Management Standard (ISO/IEC 73) and Risk management – principles and guidelines – the British/International Standard (BS ISO 31000).



## System of Internal Control

Our system of internal control is designed to ensure the effective mitigation, to tolerable levels, of the risks we face. These controls exist within our Management System (MS) and comprise the set of rules, policies and processes that govern how we conduct our business.

The MS is a live system that functions as the single source of truth for our workforce. Significant updates over the past year have included rewritten processes for SHEF risk assessment, the planning and conduct of trials, and the handling and disposal of hazardous waste.

We are committed to continuous improvement and this philosophy, together with our improved understanding of our risk landscape, has allowed us to assess robustly the strength of our system of internal control in protecting Dstl, both in reducing the likelihood or in the impact of key risk events. My Executive Team has embraced this approach and we are now seeking to review the entire portfolio to decide how best to:

- introduce new controls to mitigate identified risks, where no controls currently exist
- strengthen those existing controls that are under-performing as risk mitigation
- improve the efficiency and agility of those existing controls that are measured as effective
- assure me that the system of internal control is operating to my satisfaction.

This work is at an early stage but I expect a step-change over the coming months in the way that our key controls are managed.

### Business Operation

Performance reporting has continued to evolve over the year, influenced largely by the requirements of my Executive Team and by the Dstl Board. For example, a monthly dashboard has been launched on our intranet to raise awareness of Dstl's performance with our workforce so that individuals can better understand how their contribution translates to Dstl's overall success.

I now seek assurance that our performance reports deliver the right information at the right time to me and my team. That information must be targeted towards our progress in achieving our strategic ambitions and our management of the associated risks. The Deputy Chief Executive will be working with me and my colleagues over the next financial year to provide strong, relevant evidence upon which to take decisions, and has already transitioned the performance reporting capability to sit alongside our corporate governance, risk and process specialists.

### Assurance

To maximise the impact of the improvements we have made to our risk framework, this year I have sponsored a programme of change to ensure internal audit and assurance activity is focused upon testing the effectiveness, efficiency and agility of key controls while also assessing the level of compliance by the workforce.

The first phase of this change programme was delivered as planned by the end of this financial year, achieving:

- the successful implementation of a programme of process audit as the primary focus for the in-house assurance team to replace the previous 'integrated audit'
- the introduction, for the first time at Dstl, of a governance self-assessment audit, which was completed by every Dstl business unit
- the transition of the internal assurance capability from that of a service provider to the business units to that of a value-adding decision-support facility working principally for me
- the launch of a Business Unit Assurance Plan, to enable each management centre to identify its own assurance needs, based upon an assessment of its key objectives and risks.

This year, a total of 27 internal audit reports were delivered for consideration by my Executive Team, the Audit Committee and our Head of Internal Audit. These audits provided good coverage across the corporate risks and identified eight high-priority findings, which we are addressing through a series of actions that are subject to regular monitoring and review. These changes have already resulted in a number of tangible benefits, such as the reduction in low-level cases of non-compliance being reported, replaced instead with a set of meaningful non-conformances and areas for improvement, and highlighting a number of significant business vulnerabilities that I and my team have been quick to address.

### Audit Committee and Audit Arrangements

The Audit Committee reports to the Board on the implications of assurances provided in respect of risk and control in Dstl, as well as the adequacy of audit arrangements. The Audit Committee also reviews both the internal and external auditing requirements, the adequacy of the financial systems, risk management, control and governance. It met three times during the year.

An exercise to evaluate the effectiveness of the Audit Committee was conducted in March. On the whole, there was a high level of satisfaction with the effectiveness of the Audit Committee. The main findings for action are:

- We need to maintain our focus on risk with the selection of timely, high-risk topics for consideration by the Committee. We should achieve a risk-informed agenda that is closely aligned to the agendas of the Executive Team and Dstl Board.
- Consideration should be given to preparing a Communications Plan, setting out, among other things, the Committee's key stakeholders and how to communicate the importance of the role of the Committee to Dstl's senior management community.

Dstl's audit arrangements comply with Public Sector Internal Audit Standards and details are set out in the MS. The Chair of the Audit Committee has commented that: "The Audit Committee is very supportive of the Dstl Executive Team's increased focus on a risk-informed approach to strategy and assurance. We are working closely and constructively together to seek to ensure that the assurance programme delivers

# Case Study: Business resilience

sustainable performance improvement and continuing progress towards Dstl's organisational goals.”

## Reporting

In May, I endorsed the introduction of our quarterly Executive Assurance Report at both Executive and Board level. This report has brought together all the relevant evidence regarding the status of Dstl's overall risk framework, enabling me to discuss key issues with my team and make decisions accordingly. My Executive Team and I now:

- understand our risk landscape (through regular independent monitoring of risk management and external threats/opportunities)
- understand the strength of our controls (through assurance and other process improvement activity)
- understand how well the business is responding to our vision (through performance reporting)
- are in a position to intervene to ensure that Dstl remains on course to achieve its strategic objectives and critical enablers.

## Annual assessment of governance

Our independent Internal Audit Provider, PKF (recently merged with BDO), has provided the following statement following the completion of their contribution to the internal audit programme, as agreed by me and the Audit Committee. The audit plan was designed to support me in meeting my responsibilities as Accounting Officer.

*“Based on the audit work carried out and the actions taken in response to the issues raised, we have concluded that we can give ‘Substantial’ assurance that the system of internal control met the requirements of Dstl for activity within the 2012/13 year. There are issues in relation to the letting of contracts, the IT capacity and the delivery of the HR transformation that remain constraints on Dstl's ability to develop.”*

In each case, we are satisfied that the issue is recognised and action is in hand to seek to address it.

As part of my duty as Accounting Officer, I am required to provide my assessment on the status of our financial controls, information assurance, lapses in security, data protection and data handling review compliance, and external reviews. These assessments are reported in the following sections. Finally, I am required to declare any significant internal control issues, and any significant failures identified over the period.

## Financial controls

Dstl has a mature framework of financial control built around effective delegation and rigorous financial processes. These controls are monitored and audited throughout the year with all resulting recommendations being evaluated for potential

This year, we have focused on ensuring a coherent approach to emergency planning and emergency management across all of our sites. Our close working relationships with the Wiltshire, Hampshire and Kent Local Resilience Forums have been maintained; in the case of Wiltshire, this included a multi-agency live exercise at our Porton Down site.

We piloted the new formal review process for the Defence Critical Infrastructure initiative and received a complimentary report on our resilience arrangements from the Defence Security and Assurance Services' reviewers. Our resilience plans have been stress-tested by exercises, by our work in support of the Olympics and by adverse weather events. During the course of the year, we identified some potential resilience risks in our IT infrastructure; these are being addressed through targeted investment. No other significant new risks have emerged. Some opportunities for continued improvement have been identified and will be followed up next year.

impact and effectiveness, prior to being adopted. During the year, some minor changes were instigated; no significant problems were identified.

## Information Assurance and its Risk Management

The Executive Team and Dstl Board are firmly committed to Information Assurance and maintain a well-informed perspective on information risks through our Senior Information Risk Owner and Information Assurance (SIRO/IA) capabilities, which are appropriately resourced and are operating well.

We have focused this year on examining the risks associated with our increased engagement across the international and national industry spectrum. The implementation of the Account Manager role, which will have oversight of all programme activity relating to our strategic accounts, will provide a focus point through which we can implement effective control measures in this area. Additionally, SIRO has identified a range of targeted training requirements to support key roles in these engagements in order to strengthen governance and assurance.

## Information Assurance Maturity Progress

We continue to maintain our focus on sustaining effective IA maturity measures to Level 3 standards and the adoption of a risk-balanced defensive cyber posture. Over the past year, the following activity has been initiated under the oversight of the Dstl SIRO:

- A comprehensive review of our working practices related to the management of highly sensitive information. This has identified a range of interventions that we will manage in the next reporting period.
- A range of targeted enabling projects to ensure that our IA/defensive cyber posture is adequate and appropriate to future business requirements. These are being enacted in combination with an initiative to strengthen the IA baseline

with our strategic Information Communications Technology (ICT) partner Steria as part of my commitment to drive through continuous service improvement within our ICT contract.

- A review of our Risk Balance case process and accreditation management approach.

**Information Assurance and security lapses/incidents**

We maintain an effective IA reporting and incident management regime. All IA incidents are investigated and, where appropriate, sanctions are applied. Active monitoring of incidents and parity of sanctions is conducted through the Joint Compliance Committee that reports to the SIRO and the Audit Committee. Our sanctions this reporting period include:

- Security Caution Notices Issued – 16
- Informal Warnings Issued – 34
- Written Warnings Issued – 0
- Final Written Warnings Issued – 1
- Dismissals – 0

In March, we identified a significant information risk incident relating to Protectively Marked Material. We applied robust containment measures as soon as the incident was identified and further action is now in-hand to address any residual risks.

**Data Protection and Data Handling Review (DHR) compliance**

We continuously monitor DHR compliance through our Joint Compliance Committee and I am satisfied of our compliance in this area. Within the reporting period, I am content that we have met our statutory obligations in response to the management of Subject Access Requests and Freedom of Information Requests.

**Quality Assurance of Analytical Models**

We contributed fully to the MOD input to the pan-Government Macpherson review set up to examine the quality assurance of Government analytical models. A snapshot of eight Dstl models was declared as business critical as part of MOD’s input to the review, working with MOD colleagues.

**External Reviews**

**LRQA – ISO9001:2008 and Tick IT Guide issue 5.5.** We were successful with two surveillance audits by LRQA (Lloyds Register Quality Assurance Ltd) in July and December. In both cases, it was concluded that “... the [Management] System continues to be well implemented and meets the requirements of ISO9001:2008 and TickIT guide 5.5.” It should be noted that during the December audit, LRQA cleared all corrective actions and did not identify any major or minor non-compliances, a first for Dstl.

**LRQA – ISO14001:2004.** We have continued to maintain an ISO 14001:2004-certificated environmental management system across all three sites. LRQA confirmed that we have continued to demonstrate improvements in environmental performance. There were no new major or minor non-compliances during the December surveillance audit.

Continued reviews are undertaken in our key areas of business delivery to assure compliance to regulatory requirements, in particular for our chemical, biological and explosives activities. In June 2012, a Formal Notice of Prohibition (FNP) was placed on Dstl by the Defence Safety and Environment Authority (DSEA) following an audit of a particular facility. Corrective actions were quickly initiated and agreed to the satisfaction of both DSEA and the Health and Safety Executive, resulting in the FNP being lifted in November. We were successful with all other regulatory audits.

**In summary**

The nature of the work that we do, in support of national defence and security requirements, means that we need a strong system of governance by which Dstl is directed and controlled; over and above those perhaps required by other Government Trading Funds. I hope that I have demonstrated in this year’s Governance Statement that we have a robust system of governance in place, albeit one that we are seeking to continually improve.

**Jonathan Lyle**  
Chief Executive  
30 May 2013



# Our financial performance 2012/13

## 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 Defence Science and Technology Laboratory (Dstl) for the year ended 31 March 2013 under the Government Trading Funds Act 1973. These financial statements comprise the Group and Trading Fund Statements: of Comprehensive Income, Financial Position, Cash Flows, and 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 Dstl, Chief Executive and auditor

As explained more fully in the Statement of Dstl's and the Chief Executive's Responsibilities, Dstl and its Chief Executive as Accounting Officer is 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 Government Trading Funds Act 1973. 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 Dstl's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by Dstl; 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. 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 Dstl's affairs as at 31 March 2013 and of its profit for the year then ended; and
- the financial statements have been properly prepared in accordance with the Government Trading Funds Act 1973 and HM Treasury 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 HM Treasury directions made under the Government Trading Funds Act 1973; and
- the information given in the Overview of Dstl, Our Work, Our Working Environment, Our Governance, and Sustainability Report sections 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.

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

4 June 2013



## Statement of Comprehensive Income for the year ended 31 March 2013

		2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Turnover</b>	<b>2</b>	<b>628.7</b>	<b>595.7</b>	<b>628.1</b>	<b>594.8</b>
<b>Cost of sales</b>		<b>(303.7)</b>	<b>(271.2)</b>	<b>(303.6)</b>	<b>(271.3)</b>
<b>Net income</b>		<b>325.0</b>	<b>324.5</b>	<b>324.5</b>	<b>323.5</b>
Operating expenses		(299.1)	(294.0)	(294.8)	(292.4)
<b>Operating profit</b>	<b>3</b>	<b>25.9</b>	<b>30.5</b>	<b>29.7</b>	<b>31.1</b>
Share of associate's income		–	–	–	–
Finance income	8	0.5	0.5	0.5	0.5
Finance expense	9	(0.9)	(1.0)	(0.9)	(1.0)
<b>Profit before taxation</b>		<b>25.5</b>	<b>30.0</b>	<b>29.3</b>	<b>30.6</b>
Taxation expense	10	–	0.2	–	–
<b>Profit for the year</b>		<b>25.5</b>	<b>30.2</b>	<b>29.3</b>	<b>30.6</b>
Dividend	11	(10.0)	(8.5)	(10.0)	(8.5)
<b>Retained profit for the year</b>		<b>15.5</b>	<b>21.7</b>	<b>19.3</b>	<b>22.1</b>
<b>Other comprehensive income</b>					
Net gain/ (loss) on revaluation of property, plant and equipment		(2.5)	0.2	(2.5)	0.2
Net gain on revaluation of available-for-sale investments		0.2	1.5	–	0.6
Derecognition of available-for-sale investment on transfer to subsidiary		–	–	(2.9)	–
Net gain on revaluation of intangible assets		–	0.1	–	0.1
<b>Total comprehensive income for the year</b>		<b>13.2</b>	<b>23.5</b>	<b>13.9</b>	<b>23.0</b>

## Statement of changes in taxpayers' equity for the year ended 31 March 2013

Group

	Note	Retained earnings £ million	Public dividend capital £ million	Revaluation surplus £ million	Total taxpayers' equity £ million	Total comprehensive income £ million
<b>Balance at 1 April 2011</b>		<b>186.8</b>	<b>50.4</b>	<b>40.4</b>	<b>277.6</b>	
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	12			1.1	1.1	1.1
Surplus on application of modified historic cost accounting to property, plant and equipment	12			0.3	0.3	0.3
Surplus on revaluation of non-current financial asset investments	13			1.5	1.5	1.5
Surplus on application of modified historic cost accounting to intangible assets	14			0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				1.8	1.8	1.8
Net profit for the period		30.2			30.2	30.2
Dividend	11	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	12, 14	0.1			0.1	
<b>Balance at 31 March 2012</b>		<b>209.8</b>	<b>50.4</b>	<b>42.2</b>	<b>302.4</b>	<b>23.5</b>
Transfer to retained earnings				(3.5)	(3.5)	(3.5)
(Deficit) on revaluation of properties	12			(3.6)	(3.6)	(3.6)
Surplus on application of modified historic cost accounting to property, plant and equipment	12			4.6	4.6	4.6
Surplus on revaluation of non-current financial asset investments	13			0.2	0.2	0.2
Net gains and losses recognised in the Statement of Comprehensive Income				(2.3)	(2.3)	(2.3)
Net profit for the period		25.5			25.5	25.5
Dividend	11	(10.0)			(10.0)	(10.0)
Transfer from revaluation surplus		3.5			3.5	
Modified historic cost accounting	12, 14	(0.4)			(0.4)	
<b>Balance at 31 March 2013</b>		<b>228.4</b>	<b>50.4</b>	<b>39.9</b>	<b>318.7</b>	<b>13.2</b>

## Statement of changes in taxpayers' equity for the year ended 31 March 2013

Trading Fund

	Note	Retained earnings £ million	Public dividend capital £ million	Revaluation surplus £ million	Total taxpayers' equity £ million	Total comprehensive income £ million
<b>Balance at 1 April 2011</b>		<b>188.8</b>	<b>50.4</b>	<b>39.2</b>	<b>278.4</b>	
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	12			1.1	1.1	1.1
Surplus on application of modified historic cost accounting to property, plant and equipment	12			0.3	0.3	0.3
Surplus on revaluation of non-current financial asset investments	13			0.6	0.6	0.6
Surplus on application of modified historic cost accounting to intangible assets	14			0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				0.9	0.9	0.9
Net profit for the period		30.6			30.6	30.6
Dividend	11	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	12, 14	0.1			0.1	
<b>Balance at 31 March 2012</b>		<b>212.2</b>	<b>50.4</b>	<b>40.1</b>	<b>302.7</b>	<b>23.0</b>
Transfer to retained earnings				(3.5)	(3.5)	(3.5)
Sale of non-current financial asset investments to subsidiary	13			(2.9)	(2.9)	(2.9)
Deficit on revaluation of properties	12			(3.6)	(3.6)	(3.6)
Surplus on application of modified historic cost accounting to property, plant and equipment	12			4.6	4.6	4.6
Net gains and losses recognised in the Statement of Comprehensive Income				(5.4)	(5.4)	(5.4)
Net profit for the period		29.3			29.3	29.3
Dividend	11	(10.0)			(10.0)	(10.0)
Transfer from revaluation surplus		3.5			3.5	
Modified historic cost accounting	12, 14	(0.4)			(0.4)	
<b>Balance at 31 March 2013</b>		<b>234.6</b>	<b>50.4</b>	<b>34.7</b>	<b>319.7</b>	<b>13.9</b>

The notes on pages 50 to 71 form an integral part of these accounts.

## Statement of Financial Position as at 31 March 2013

	Note	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Assets</b>					
<b>Non-current assets</b>					
Property, plant and equipment	12	211.3	210.5	211.3	210.5
Financial assets	13	5.6	5.4	3.0	3.0
Investment in associate	13	–	–	–	–
Intangible assets	14	3.6	3.9	3.6	3.9
Receivables	17	0.7	0.8	5.5	5.0
Total non-current assets		221.2	220.6	223.4	222.4
<b>Current assets</b>					
Work in progress	16	2.1	2.4	2.1	2.4
Receivables	17	220.7	191.9	220.5	191.4
Cash and cash equivalents	18	78.5	79.6	77.4	78.4
Total current assets		301.3	273.9	300.0	272.2
<b>Total assets</b>		<b>522.5</b>	<b>494.5</b>	<b>523.4</b>	<b>494.6</b>
<b>Current liabilities</b>					
Trade and other payables	19	182.0	166.6	181.9	166.4
Short-term provisions	20	0.5	0.7	0.5	0.7
Total current liabilities		182.5	167.3	182.4	167.1
<b>Non-current assets plus net current assets</b>		<b>340.0</b>	<b>327.2</b>	<b>341.0</b>	<b>327.5</b>
<b>Non-current liabilities</b>					
Other payables	19	19.4	22.6	19.4	22.6
Long-term provisions	20	1.9	2.2	1.9	2.2
Total non-current liabilities		21.3	24.8	21.3	24.8
<b>Assets less liabilities</b>		<b>318.7</b>	<b>302.4</b>	<b>319.7</b>	<b>302.7</b>
<b>Taxpayers' equity</b>					
Public dividend capital	25	50.4	50.4	50.4	50.4
Revaluation surplus		39.9	42.2	34.7	40.1
Retained earnings		228.4	209.8	234.6	212.2
<b>Total taxpayers' equity</b>		<b>318.7</b>	<b>302.4</b>	<b>319.7</b>	<b>302.7</b>

The financial statements were signed on 30 May 2013

The Accounting Officer authorised these financial statements for issue on 4 June 2013\*



**Jonathan Lyle, Chief Executive**

\*This represents the date the accounts were certified by the Comptroller and Auditor General.

## Statement of cash flows for the year ended 31 March 2013

	Note	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Cash flows from operating activities</b>					
Net profit before taxation		25.5	30.0	29.3	30.6
Adjustments for:					
Depreciation	3, 12	11.5	13.3	11.5	13.3
(Profit) on sale of property, plant and equipment	3	(3.7)	–	(3.7)	–
(Profit) on sale of non-current financial asset investments	3, 13	–	–	(2.9)	–
Amortisation	3, 14	0.9	1.1	0.9	1.1
Operating profit before working capital changes		34.2	44.4	35.1	45.0
(Increase)/ decrease in work in progress		0.3	(0.5)	0.3	(0.5)
(Increase) in receivables		(28.6)	(25.0)	(29.4)	(25.4)
Increase in payables		11.9	12.9	11.9	13.3
Use of provisions		(1.0)	(2.0)	(1.0)	(2.0)
Finance income		(0.5)	(0.5)	(0.5)	(0.5)
Finance expense		0.9	1.0	0.9	1.0
Net cash inflow from operating activities		17.2	30.3	17.3	30.9
Taxation paid		–	(0.1)	–	–
<b>Cash flows from investing activities</b>					
Purchases of property, plant and equipment		(11.3)	(9.6)	(11.3)	(9.6)
Proceeds from sale of property, plant and equipment		6.0	–	6.0	–
Purchases of intangible assets		(0.8)	(0.9)	(0.8)	(0.9)
Finance income		0.5	0.5	0.5	0.5
Net cash used in investing activities		(5.6)	(10.0)	(5.6)	(10.0)
<b>Cash flows from financing activities</b>					
Repayment of loans from MOD		(3.2)	(3.2)	(3.2)	(3.2)
Interest paid on loans		(1.0)	(1.1)	(1.0)	(1.1)
Dividend paid		(8.5)	(8.5)	(8.5)	(8.5)
Net cash (used) from financing activities		(12.7)	(12.8)	(12.7)	(12.8)
Net increase/ (decrease) in cash and cash equivalents		(1.1)	7.4	(1.0)	8.1
Brought forward cash and cash equivalents		79.6	72.2	78.4	70.3
<b>Carried forward cash and cash equivalents</b>	<b>18</b>	<b>78.5</b>	<b>79.6</b>	<b>77.4</b>	<b>78.4</b>

## Notes to the Accounts

### 1 Accounting policies

#### (a) Statement of accounting policies

The financial statements have been prepared in accordance with the 2012/13 Government Financial Reporting Manual (FRoM) issued by HM Treasury. The accounting policies contained in the FRoM apply International Financial Reporting Standards (IFRS) as adapted or interpreted for the public sector context. Where the FRoM 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 particular policies adopted by the Group are described below. They have been applied consistently in dealing with items that are considered material to the accounts. The accounts of all Group undertakings are drawn up to 31 March 2013.

#### (b) Accounting convention

These accounts have been prepared under the historical cost convention, modified to account for revaluation of property, plant and equipment, intangible assets, and for the application of fair value where appropriate.

#### (c) Estimation techniques

There have been no revisions of estimation techniques. Accruals are estimated with reference to available documentation, advice from management, information provided by third parties, and from experience gained from similar previous events.

Staff holiday is not recorded on central management information systems and therefore the holiday pay accrual calculation is an area where judgement is exercised. The estimate is based on the application of daily pay, using the mid-point for each pay scale, to the total annual holiday entitlement by pay scale. This provides the estimated total annual holiday pay. An appropriate proportion, derived from sample testing, is applied to the total annual holiday pay to calculate the estimated holiday pay accrual.

Freehold land and buildings are subject to a rolling programme of quinquennial revaluation by an independent, professional valuer. Depreciation of property, plant and equipment, and amortisation of intangible assets, is based on the useful economic life of the asset. Useful economic lives are reviewed at least annually. The basis for estimating useful economic life includes experience of previous similar assets, the condition and performance of the asset, and knowledge of technological advances and obsolescence. In respect of the depreciation of property, an independent professional evaluation of a property's useful economic life is provided during the quinquennial rolling valuation programme. Valuations of non-current financial assets are performed by Ploughshare Innovations Limited (Ploughshare), following the British Venture Capital Association (BVCA) Guidelines. Fair value is derived by applying the price of shareholders' most recent investment, and discounting based on market intelligence. Where appropriate, a business-in-use valuation based on discounted projected cash flows has been adopted for specialised

facilities. Further information on the business-in-use valuation adopted for the Biological High Containment Facility is disclosed in Note 12.

Measurement of provisions are based on third-party estimates.

#### (d) Basis of consolidation

The consolidated accounts incorporate the accounts of the Trading Fund with its associate, Tetricus Limited, and its wholly owned subsidiary undertaking, Ploughshare.

The subsidiary undertaking, which the Trading Fund has the power to control, has been consolidated according to International Accounting Standard (IAS)27: Consolidated and Separate Financial Statements. The associate, over which the Trading Fund has the power to exercise significant influence, has been consolidated using the equity method.

#### (e) Property, plant and equipment

All assets are independently inspected on a three-year rolling programme.

The valuation bases for different classes of asset are as follows:

Land and buildings:

Where valuations are carried out, they are performed using Royal Institute of Chartered Surveyors (RICS) methods.

Porton Down –

Depreciated Replacement Cost (DRC)

Portsmouth West –

DRC

For land and buildings that have been declared surplus –

Market Value

Specialised facilities –

Lower of DRC and recoverable amount. The recoverable amount is calculated as the greater of:

- (i) the estimated net present value of the cash flows derived from the continued use of the asset in its current state;
- (ii) the estimated net sale proceeds of the asset.

Plant, machinery, computers and office equipment –

Modified historic cost accounting.

A facility is a collection of non-current assets operated together to provide discrete services.

Property is revalued in the years between professional independent valuations using the following indices:

Land: Retail Price Index

Buildings: Buildings Cost Information Service (BCIS),  
All-In Tender Price Index.

Plant, machinery, computers and office equipment assets are revalued using relevant indices published by the Office for National Statistics (ONS).

Plant, machinery, computers and office equipment are capitalised where the cost of acquisition is greater than £10,000.

Depreciation is provided on a straight-line basis over the useful economic lives of the assets, which are as follows:

Freehold land	Not depreciated
Freehold buildings	1 - 50 years
Plant and machinery	1 - 25 years
Computers and office equipment	1 - 10 years

Details of property, plant and equipment values included within these financial statements are disclosed in Note 12.

#### **(f) Intangible assets**

Intangible assets comprise purchased software licences and the cost of software developed in-house where there is reliable cost information and it is probable that the asset will give rise to future economic benefit. The minimum level for capitalisation of intangible assets is £10,000. Amortisation is on a straight-line basis over the shorter of the licence term or the useful economic life. Intangible assets are revalued annually using the Retail Price Index (excluding housing) published by the ONS. The useful economic lives of intangible assets are considered to fall within one to ten years.

#### **(g) Research and development**

Research and development expenditure incurred during work on a contract for a customer is chargeable to the customer. Internally funded research expenditure is charged to the Statement of Comprehensive Income as incurred.

#### **(h) Work in progress**

Work in progress represents costs incurred on firm-price contracts and is stated at the lower of cost and net realisable value.

#### **(i) Amounts recoverable under contract**

Amounts recoverable under contract represent turnover recognised in excess of the values invoiced (net of VAT) on cost-plus contracts and will include an appropriate amount of profit attributed to the contract.

#### **(j) Financial instruments**

Financial assets and liabilities are recognised where the Group has become a party to contractual terms of a financial instrument. Financial instruments are initially measured at fair value, which is usually cost. Long-term loans are measured at amortised cost using the effective interest rate method. Available-for-sale investments are measured at fair value. Unrealised gains and losses arising from changes in fair value are recognised in Other Comprehensive Income.

#### **(k) Provisions**

Provisions are made where the Group has a present legal or constructive obligation as a result of a past event, and where it is probable that a reliably measured economic outflow will result. Provisions are measured taking into account the risks and uncertainties surrounding the obligation. Where possible, information from third parties is used as a basis for deriving the estimated liability.

#### **(l) Pensions**

Past and present employees are covered by the provisions of the Principle Civil Service Pension Scheme (PCSPS), which is an unfunded multi-employer scheme providing benefits based on final salary. The Trading Fund is unable to identify its share of the underlying assets and liabilities and therefore it accounts for the scheme as if it was a defined contribution scheme. As a result, the amount charged to the Statement of Comprehensive Income

represents the contributions payable to the scheme in respect of the accounting period. Details of rates and amounts of contributions during the year are given in Note 7.

#### **(m) Foreign currencies**

Transactions denominated in foreign currencies are translated into sterling at the rates of exchange ruling at the date of the transaction. Monetary assets and liabilities that are denominated in foreign currency are retranslated at the rates of exchange ruling at the Statement of Financial Position date. Gains and losses arising on retranslation are included in the Statement of Comprehensive Income.

#### **(n) Turnover**

Turnover is recognised when the significant risks and rewards of ownership have been transferred to the buyer and there is reasonable certainty of recovery of the consideration receivable. For cost-plus contracts, turnover is recognised as work is performed, and includes an appropriate amount of profit. For firm-price contracts, turnover is recognised as agreed milestones are reached or as deliverables are met. An appropriate amount of profit is attributed where there is reasonable certainty of the final outcome. Losses are recognised as soon as they are foreseen.

#### **(o) Segmental reporting**

The principal activities of the Group are managed through Departments, as disclosed in Note 30 on segmental reporting. The accounting policies of the operating segments are the same as those of the Group. Corporate overheads are allocated to operating segments of the Trading Fund on the basis of headcount with the exception of estates management charges, which are allocated on area of occupation. Inter-segment sales and transfers within the Trading Fund are at cost. Trading with Ploughshare is on an arm's length basis.

#### **(p) Reserves within taxpayers' equity**

The revaluation surplus represents taxpayers' equity arising from increases in the value of non-current assets. For buildings, the difference between depreciation charged on the total revalued amount and the depreciation relating to the original historic cost of the asset is transferred to retained earnings.

#### **(q) IFRS, amendments and interpretations in issue but not yet effective or adopted**

IAS8: Accounting Policies, Changes in Accounting Estimates and Errors requires disclosures in respect of new IFRS, amendments and interpretations that are or will be applicable after the reporting period. There are a number of standards, amendments and interpretations issued by the IAS Board that are effective for financial statements after this reporting period. The following have not been adopted early by the Group:

##### **IFRS9 financial instruments**

A new standard intended to replace IAS39. The effective date is for accounting periods beginning on or after 1 January 2015. This new standard is not expected to have a future material impact on the financial statements of the Group.

## 2 Turnover

Turnover by major class of customer is analysed as follows:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
MOD:	584.5	552.7	584.5	552.7
Research: Defence S&T Programme	421.3	404.5	421.3	404.5
Other	163.2	148.2	163.2	148.2
Non-MOD:	44.2	43.0	43.6	42.1
Government departments	26.5	25.9	26.5	25.9
Non-Exchequer income	17.5	16.5	17.1	16.2
Non-Exchequer equity sales, royalty income and licensing income	0.2	0.6	–	–
<b>Total</b>	<b>628.7</b>	<b>595.7</b>	<b>628.1</b>	<b>594.8</b>

Turnover is categorised according to the main contracted customer. All turnover relates to the same class of business, which is the supply of scientific and technical services. This is conducted principally in the UK in sterling and no other geographical market has contributed significantly to turnover. See Note 30 for operating segment disclosures.

## 3 Operating profit

This is stated after charging/(crediting):

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Depreciation charge for year:	11.5	13.3	11.5	13.3
Depreciation of owned property, plant and equipment	11.8	10.9	11.8	10.9
Exceptional costs of impairment of property, plant and equipment	0.4	2.5	0.4	2.5
Adjustment valuation of property, plant and equipment	(0.7)	(0.1)	(0.7)	(0.1)
Amortisation charge for the year:	0.9	1.1	0.9	1.1
Amortisation of software licences	0.8	0.9	0.8	0.9
Adjustment valuation of software licences	0.1	0.2	0.1	0.2
Loss on disposal of owned property, plant and equipment	0.1	–	0.1	–
Profit on disposal of owned property, plant and equipment (see Note 4 for further details)	(3.8)	–	(3.8)	–
Profit on transfer of non-current financial asset investment (see Note 4 for further details)	–	–	(2.9)	–
Operating lease rentals:				
- property	3.8	4.1	3.8	4.1
- plant	–	0.1	–	0.1
Travel, subsistence and hospitality (excluding exceptional costs of i lab and Helios – see Note 4 for further details)	2.2	2.3	2.2	2.3
Foreign exchange losses	–	0.1	–	0.1
Auditor's remuneration and expenses <sup>1</sup>	0.1	0.1	0.1	0.1
Costs of i lab (see Note 4 for further details)	1.4	3.3	1.4	3.3
Costs of Helios (see Note 4 for further details)	4.0	0.9	4.0	0.9
Other operating income	(5.3)	(5.4)	(5.8)	(5.9)

<sup>1</sup> During the years ending 31 March 2012 and 31 March 2013, the Group did not contract any non-audit services from its external auditor, the National Audit Office (NAO).



## 4 Significant operating items

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
i lab <sup>1</sup>	1.4	3.3	1.4	3.3
Helios <sup>2</sup>	4.0	0.9	4.0	0.9
(Profit) on sale of land <sup>3</sup>	(3.8)	–	(3.8)	–
(Profit) on inter-Group transfer of equity <sup>4</sup>	–	–	(2.9)	–
<b>Total</b>	<b>1.6</b>	<b>4.2</b>	<b>(1.3)</b>	<b>4.2</b>

<sup>1</sup> Costs of withdrawal from the Trading Fund's sites at Farnborough and Malvern under the i lab rationalisation programme.

<sup>2</sup> Costs of withdrawal from the Trading Fund's site at Fort Halstead under the Helios rationalisation programme.

<sup>3</sup> During the year, land at Pyestock valued at £2.2 million, was sold for £6.0 million at a profit of £3.8 million.

<sup>4</sup> During the year, equity valued at £3.0 million transferred to the subsidiary at a profit to the Trading Fund of £2.9 million.

## 5 Key corporate financial target

The Trading Fund defines its Return on Capital Employed (ROCE) as follows:

a. Return – modified historical cost profit on ordinary activities before interest and dividends.

b. Capital employed – average capital and reserves, being public dividend capital, long-term loans, and reserves.

The ROCE target set by MOD is to achieve a five-year average of 3.5 per cent during the period from 1 April 2009 to 31 March 2014.

The annual ROCE calculation is:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Profit on ordinary activities before interest and taxation	25.9	30.5	29.7	31.1
Public dividend capital	50.4	50.4	50.4	50.4
Long-term loan	19.4	22.5	19.4	22.5
Reserves	268.3	252.0	269.3	252.3
Capital employed at year end	338.1	324.9	339.1	325.2
Average capital employed during the year	331.5	314.2	332.2	314.7
<b>ROCE</b>	<b>7.8%</b>	<b>9.7%</b>	<b>8.9%</b>	<b>9.9%</b>

The average ROCE for the period 1 April 2009 to 31 March 2013 is:

	1 April 2009		31 March 2013	
	Group £ million	Trading Fund £ million	Group £ million	Trading Fund £ million
Average profit on ordinary activities before interest and taxation for the four years to 31 March 2013			30.9	32.0
Public dividend capital	50.4	50.4	50.4	50.4
Long-term loan	21.5	21.5	19.4	19.4
Reserves	171.1	171.8	268.3	269.3
Total capital employed	243.0	243.7	338.1	339.1
Average capital employed during the period			290.6	291.4
<b>ROCE</b>			<b>10.6%</b>	<b>11.0%</b>

## 6 Trading Fund Board members' emoluments

Details of members' emoluments are shown in the Remuneration Report. They are summarised as follows:

	2013 £'000	2012 £'000
<b>Salaries, NCPAs and fees</b>	<b>938.3</b>	<b>1,032.5</b>

## 7 Employee information

The average Full-Time Equivalent number of persons (including members of the Board) employed during the year was:

	2013 Group Number	2012 Group Number	2013 Trading Fund Number	2012 Trading Fund Number
Professional and technical staff	2,901	2,906	2,889	2,894
Administrative and industrial staff	688	631	685	628
Secondees	89	84	89	84
Agency and contract staff	199	146	198	146
<b>Total</b>	<b>3,877</b>	<b>3,767</b>	<b>3,861</b>	<b>3,752</b>

Staff costs incurred during the year in respect of these employees were:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Wages and salaries	137.4	135.0	136.8	134.4
Social security costs	11.9	11.6	11.8	11.5
Other pension costs	25.0	24.8	24.9	24.7
Agency and contract staff	24.1	18.7	24.1	18.7
<b>Total</b>	<b>198.4</b>	<b>190.1</b>	<b>197.6</b>	<b>189.3</b>

During the year, £32.7 thousand staff costs were capitalised (2011/12: £174.6 thousand).

The employees of the Trading Fund are eligible to be members of the Principal Civil Service Pension Scheme (PCSPS).

The PCSPS is an unfunded multi-employer defined benefit scheme but the Trading Fund is unable to identify its share of the underlying assets and liabilities.

A full actuarial valuation was carried out at 31 March 2007. Details can be found in the resource accounts of the Cabinet Office; Civil Superannuation ([www.civilservice.gov.uk/pensions](http://www.civilservice.gov.uk/pensions)). For 2012/13, employers' contributions of £24.7 million were payable to the PCSPS (2011/12: £24.7 million) at one of four rates in the range 16.7 per cent to 24.3 per cent of pensionable pay, based on salary bands.

The scheme Actuary reviews employer contributions every four years following a full scheme valuation. The contribution rates are set to meet the cost of the benefits accruing during 2012/13 to be paid when the member retires, and not the benefits paid during this period to existing pensioners.

Employees can opt to open a partnership pension account, a stakeholder pension with an employer contribution. Employers' contributions of £185,115 were paid to one or more of the panel of three appointed stakeholder pension providers. Employer contributions are age related and range from 3 per cent to 12.5 per cent of pensionable pay. Employers also match employee contributions up to 3 per cent of pensionable pay. In addition, employer contributions of £12,672, representing 0.8 per cent of pensionable pay, were payable to the PCSPS to cover the cost of the future provision of lump sum benefits on death in service, or ill-health retirement of these employees. Contributions due to the partnership pension providers at 31 March 2013 were £15,596. There were no prepaid contributions at that date.

Two people retired early on ill-health grounds; the total additional accrued pension liabilities in the year amounted to £4,803 for these individuals.

### Exit packages

Redundancy and other departure costs have been paid in accordance with the provisions of the Civil Service Compensation Scheme, a statutory scheme, made under the Superannuation Act 1972. Exit costs are accounted for in full in the year of departure. Where the Trading Fund has agreed early retirements, the additional costs are met by the Trading Fund and not by the PCSPS. Ill-health retirement costs are met by the pension scheme and are not included in the table below. Comparatives for the previous year are shown in brackets.

Exit package cost band	Number of compulsory redundancies	Number of other departures agreed	Total number of exit packages by cost band
Less than £10,000	2 (3)	0 (1)	3 (4)
£10,000 - £25,000	0 (2)	2 (3)	2 (5)
£25,000 - £50,000	1 (1)	5 (3)	5 (4)
£50,000 - £100,000	1 (0)	0 (4)	1 (4)
£100,000 - £150,000	0 (0)	0 (1)	0 (1)
£150,000 - £200,000	0 (0)	0 (0)	0 (0)
More than £200,000	0 (0)	0 (0)	0 (0)
<b>Total number of exit packages</b>	<b>4 (6)</b>	<b>7 (12)</b>	<b>11 (18)</b>
<b>Total cost of exit packages (£)</b>	<b>104,997 (71,577)</b>	<b>201,537 (625,396)</b>	<b>306,534 (696,973)</b>

## 8 Finance income

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Interest received and receivable from bank accounts and short-term deposits	0.5	0.5	0.5	0.5
<b>Total</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>

## 9 Finance expense

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Interest paid and payable on loans	1.0	1.1	1.0	1.1
Financial instrument remeasurements	(0.1)	(0.1)	(0.1)	(0.1)
<b>Total</b>	<b>0.9</b>	<b>1.0</b>	<b>0.9</b>	<b>1.0</b>

No payments were made under the Late Payments of Commercial Debts (Interest) Act 1998 (2011/12: £nil).

## 10 Taxation

The Trading Fund is not subject to income or corporation tax in the UK under Section 829(2) of the Income and Corporation Taxes Act 1988, and consequently the requirements to account for current tax and deferred tax under IAS12 are not relevant to the Trading Fund. However, Ploughshare is liable to pay corporation tax in the UK on its taxable profits. The tax charge on the profit on ordinary activities for the year was as follows:

	2013 Group £ million	2012 Group £ million
Current tax:		
UK corporation tax	–	(0.2)

The tax assessed for the year is lower than the standard rate of corporation tax in the UK. The difference is explained below:

	2013 £ million	2012 £ million
Group profit on ordinary activities before tax	25.5	30.0
Less Trading Fund profit (exempt) and consolidation adjustments on ordinary activities before tax	(26.4)	(30.6)
Loss on ordinary activities before tax	(0.9)	(0.6)
Loss on ordinary activities multiplied by the standard rate of corporation tax in the UK of 28 per cent (2011/12: 28 per cent)	(0.2)	(0.2)
Effects of:		
Utilisation of tax losses	–	0.1
Adjustment to tax in respect of previous periods	–	(0.2)
Unutilised trading losses carried forward	0.2	0.1
<b>Current tax (credit)</b>	<b>–</b>	<b>(0.2)</b>

Ploughshare has unutilised gross trading losses carried forward of £4.7 million (2011/12: £3.7 million). No provisions for deferred tax have been made.

## 11 Dividends

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Ordinary dividend payable	10.0	8.5	10.0	8.5
<b>Total</b>	<b>10.0</b>	<b>8.5</b>	<b>10.0</b>	<b>8.5</b>

Dividends payable to MOD are set by agreement with the Secretary of State.

## 12 Property, plant and equipment

Group and Trading Fund

The accounting policy for property, plant and equipment is covered in Note 1. Property, plant and equipment movements during the year were as follows:

	Freehold land £ million	Freehold buildings £ million	Legacy facilities £ million	Plant and machinery £ million	Computers and office equipment £ million	Assets under construction £ million	Total £ million
<b>Valuations and gross modified historic cost:</b>							
Balance at 1 April 2012	27.1	163.7	0.1	84.8	8.1	8.7	292.5
Additions	–	0.1	–	0.1	–	13.8	14.0
Disposals	(2.2)	(11.3)	–	(0.7)	(0.5)	–	(14.7)
Transfers	–	1.6	–	1.1	3.7	(6.4)	–
Revaluations	0.2	4.9	–	3.0	1.2	–	9.3
Impairment	(0.1)	–	–	–	–	–	(0.1)
<b>Balance at 31 March 2013</b>	<b>25.0</b>	<b>159.0</b>	<b>0.1</b>	<b>88.3</b>	<b>12.5</b>	<b>16.1</b>	<b>301.0</b>

### Depreciation:

Balance at 1 April 2012	–	(28.2)	(0.1)	(48.5)	(5.2)	–	(82.0)
Charge for year:							
historical	–	(6.2)	–	(3.7)	(1.9)	–	(11.8)
supplementary	–	(0.2)	–	(1.8)	(0.8)	–	(2.8)
impairment	–	–	–	(0.3)	–	–	(0.3)
Disposals	–	0.1	–	0.7	0.5	–	1.3
Revaluations	–	5.9	–	–	–	–	5.9
<b>Balance at 31 March 2013</b>	<b>–</b>	<b>(28.6)</b>	<b>(0.1)</b>	<b>(53.6)</b>	<b>(7.4)</b>	<b>–</b>	<b>(89.7)</b>

Net modified historic cost:

<b>Balance at 31 March 2013</b>	<b>25.0</b>	<b>130.4</b>	<b>–</b>	<b>34.7</b>	<b>5.1</b>	<b>16.1</b>	<b>211.3</b>
Balance at 1 April 2012	27.1	135.5	–	36.3	2.9	8.7	210.5

Land and buildings are subject to a quinquennial revaluation by an independent, professional valuer in accordance with IAS16: Property, Plant and Equipment. During the year, land at Pyestock previously valued at £2.2 million, was sold for £6.0 million. Portsdown Main is valued annually. The latest valuation was carried out as at 31 January 2013 on a Market Value basis by Knight Frank LLP, Chartered Surveyors.

All other land and building assets at Porton Down and Portsdown West are valued on a rolling basis by GVA Grimley Limited, Chartered Surveyors. All land and building assets are being valued over five years beginning 1 April 2009.

The published figures for land and buildings include:

- a professional external valuation of Portsdown Main as at 31 January 2013
- a professional external valuation of the land and building assets at Portsdown West as at 31 March 2013
- a professional external valuation of the land at Porton Down as at 31 March 2009
- a professional external valuation of the building assets at Porton Down in three approximate equal segments during the periods ending 31 March 2007, 2008, and 2009
- a professional external valuation of a quarter of the building assets at Porton Down as at 31 March 2010
- a professional external valuation of a quarter of the building assets at Porton Down as at 31 March 2011
- a professional external valuation of a quarter of the building assets at Porton Down as at 31 March 2012.

The valuation of Portsdown Main resulted in an impairment of £0.1 million.

The basis of the valuation for Porton Down and Portsdown West is Market Value using the DRC method.

In the event of Porton Down and Portsdown West being marketed for an alternative use to their current purpose, it is likely that the values would be materially lower than the reported figures.

Included within freehold land and freehold buildings are properties from which rental income is derived. These are not material and are not disclosed separately. The Trading Fund performs an annual business-in-use valuation on its Biological High Containment Facility, which is reported within the figures for freehold buildings and plant and machinery. Two scenarios were modelled based on the capacity support income from MOD to maintain the facility. These resulted in a weighted average valuation of £10.4 million, as set out below:

Scenario:	Life years	Discount factor %	Value £ million	Weighting %	Weighted average value £ million
1. Income declines by 2.8% each year from 1 April 2014, and capacity support is capped at underlying level of £3.3 million	22	3.5	12.7	75	9.5
2. Income declines by 2.8% each year from 1 April 2014, and capacity support reduces by £0.2 million per annum from 1 April 2015	22	3.5	3.4	25	0.9
					10.4

The impairment is disclosed as £0.2 million for plant and machinery.

The comparatives for the year ended 31 March 2012 are:

	Freehold land £ million	Freehold buildings £ million	Legacy facilities £ million	Plant and machinery £ million	Computers and office equipment £ million	Assets under construction £ million	Total £ million
<b>Valuations and gross modified historic cost:</b>							
Balance at 1 April 2011	27.6	164.1	0.1	72.8	7.9	16.8	289.3
Additions	–	–	–	0.1	–	9.0	9.1
Disposals	–	–	–	(3.1)	(0.3)	–	(3.4)
Transfers	–	0.3	–	15.4	1.4	(17.1)	–
Transferred to intangible assets	–	–	–	–	(1.0)	–	(1.0)
Revaluations	0.8	(0.7)	–	(0.4)	0.1	–	(0.2)
Impairment	(1.3)	–	–	–	–	–	(1.3)
<b>Balance at 31 March 2012</b>	<b>27.1</b>	<b>163.7</b>	<b>0.1</b>	<b>84.8</b>	<b>8.1</b>	<b>8.7</b>	<b>292.5</b>
<b>Depreciation:</b>							
Balance at 1 April 2011	–	(23.8)	(0.1)	(46.6)	(5.0)	–	(75.5)
Charge for year:							
historical	–	(6.0)	–	(3.8)	(1.1)	–	(10.9)
supplementary	–	–	–	–	(0.1)	–	(0.1)
downward revaluation	–	0.1	–	–	–	–	0.1
impairment	–	–	–	(1.2)	–	–	(1.2)
Transferred to intangible assets	–	–	–	–	0.7	–	0.7
Disposals	–	–	–	3.1	0.3	–	3.4
Revaluations	–	1.5	–	–	–	–	1.5
<b>Balance at 31 March 2012</b>	<b>–</b>	<b>(28.2)</b>	<b>(0.1)</b>	<b>(48.5)</b>	<b>(5.2)</b>	<b>–</b>	<b>(82.0)</b>
Net modified historic cost:							
Balance at 31 March 2012	27.1	135.5	–	36.3	2.9	8.7	210.5
<b>Balance at 1 April 2011</b>	<b>27.6</b>	<b>140.3</b>	<b>–</b>	<b>26.2</b>	<b>2.9</b>	<b>16.8</b>	<b>213.8</b>

## 13 Non-current financial assets

	Trading Fund subsidiary undertaking £ million	Trading Fund investment and associate £ million	Trading Fund Total £ million	Group investments and associate £ million	Group Total £ million
<b>Cost or valuation:</b>					
Balance at 1 April 2012	–	3.0	3.0	5.4	5.4
Additions	3.0	–	3.0	–	–
Disposals	–	(3.0)	(3.0)	–	–
Revaluations	–	–	–	0.2	0.2
<b>Balance at 31 March 2013</b>	<b>3.0</b>	<b>–</b>	<b>3.0</b>	<b>5.6</b>	<b>5.6</b>

A valuation of the available-for-sale investments has been performed by Ploughshare. These valuations have been adopted by the Board, and have been incorporated into the Group accounts on consolidation of the subsidiary undertaking.

Ploughshare derive fair value by following the British Venture Capital Association (BVCA) Guidelines. Their approach is by application of the price of most recent investment to the number of shares held, and discounting by an appropriate market-based factor. Ploughshare, who manage the Group's equity investments, are able to apply market intelligence to the valuations.

The valuations of holdings in available-for-sale investments owned by Ploughshare, and incorporated within these Group financial statements, include Enigma Diagnostics Limited (Enigma), P2i Limited, Subsea Asset Location Technologies Limited (SALT), and Claresys Limited.

During the year, the Trading Fund transferred its own available-for-sale investment in Enigma to Ploughshare, resulting in a gain on transfer of £2.9 million. The gain has been eliminated from the Group results on consolidation. All available-for-sale investments owned by the Group are now held by Ploughshare.

Further details of the subsidiary, available-for-sale investment and associate owned directly by the Trading Fund as at 31 March 2013 are shown below:

Name of company	Principal area of operation and country of incorporation	Proportion of voting rights and shares held	Class of shares held	Last financial year ended	Turnover £ million	Profit/ (Loss) for year £ million	Total assets £ million	Total liabilities £ million	Aggregate capital & reserves £ million	Nature of business
<b>Subsidiary</b>										
Ploughshare Innovations Limited	Great Britain	100.0%	Ordinary of £1	31 March 2013	0.7	(0.9)	6.9	4.9	2.0	Technology transfer management
<b>Associate</b>										
Tetricus Limited	Great Britain	33.3%	Ordinary C of £1	31 March 2013	0.4	0.1	0.5	0.2	0.3	Business support to biotechnology start ups

Management accounts for 12 months to the year ended 31 March 2013 have been used because audited accounts were not available.

The comparatives for the year ended 31 March 2012 are:

	Trading Fund subsidiary undertaking £ million	Trading Fund investment and associate £ million	Trading Fund Total £ million	Group investments and associate £ million	Group Total £ million
<b>Cost or valuation:</b>					
Balance at 1 April 2011	–	2.4	2.4	3.9	3.9
Revaluations	–	0.6	0.6	1.5	1.5
<b>Balance at 31 March 2012</b>	<b>–</b>	<b>3.0</b>	<b>3.0</b>	<b>5.4</b>	<b>5.4</b>

Further details of the subsidiary, available-for-sale investment and associate owned directly by the Trading Fund as at 31 March 2012 are shown below:

Name of company	Principal area of operation and country of incorporation	Proportion of voting rights and shares held	Class of shares held	Last financial year ended	Turnover £ million	(Loss) for year £ million	Total assets £ million	Total liabilities £ million	Aggregate capital & reserves £ million	Nature of business
<b>Subsidiary</b>										
Ploughshare Innovations Limited	Great Britain	100.0%	Ordinary of £1	31 March 2012	1.1	(0.4)	4.2	4.4	(0.2)	Technology transfer management
<b>Available-for-sale investment</b>										
Enigma Diagnostics Limited	Great Britain	6.9%	Ordinary of 10p/ Preferred ordinary of 1p	30 April 2011	10.8	(8.3)	4.6	3.3	1.3	Research and development

Management accounts for 11 months to 31 March 2012, adjusted for 12 months, have been used because audited accounts were not available.

<b>Associate</b>										
Tetricus Limited	Great Britain	33.3%	Ordinary C of £1	31 March 2012	0.3	–	0.5	0.2	0.3	Business support to biotechnology start ups

Management accounts for 12 months to the year ended 31 March 2012 have been used because audited accounts were not available.

## 14 Intangible assets

Group and Trading Fund

The accounting policy for intangible assets is covered in Note 1. Intangible asset movements during the year were:

	Purchased software licences £ million	Software assets under construction £ million	Total £ million
<b>Gross modified historic cost:</b>			
Balance at 1 April 2012	5.3	0.7	6.0
Additions	0.7	0.2	0.9
Revaluations	(0.2)	–	(0.2)
<b>Balance at 31 March 2013</b>	<b>5.8</b>	<b>0.9</b>	<b>6.7</b>
<b>Amortisation:</b>			
Balance at 1 April 2012	(2.1)	–	(2.1)
Charge for year:			
historical	(0.8)	–	(0.8)
supplementary	(0.2)	–	(0.2)
<b>Balance at 31 March 2013</b>	<b>(3.1)</b>	<b>–</b>	<b>(3.1)</b>
Net modified historic cost:			
<b>Balance at 31 March 2013</b>	<b>2.7</b>	<b>0.9</b>	<b>3.6</b>
Balance at 1 April 2012	3.2	0.7	3.9

The comparatives for the year ended 31 March 2012 are:

	Purchased software licences £ million	Software assets under construction £ million	Total £ million
<b>Gross modified historic cost:</b>			
Balance at 1 April 2011	6.3	0.3	6.6
Additions	0.1	0.6	0.7
Disposals	(2.7)	–	(2.7)
Transfers	0.2	(0.2)	–
Transfers from property, plant and equipment	1.0	–	1.0
Revaluations	0.4	–	0.4
<b>Balance at 31 March 2012</b>	<b>5.3</b>	<b>0.7</b>	<b>6.0</b>
<b>Amortisation:</b>			
Balance at 1 April 2011	(3.3)	–	(3.3)
Charge for year:			
historical	(0.9)	–	(0.9)
supplementary	0.1	–	0.1
Transfers from property, plant and equipment	(0.7)	–	(0.7)
Disposals	2.7	–	2.7
<b>Balance at 31 March 2012</b>	<b>(2.1)</b>	<b>–</b>	<b>(2.1)</b>
Net modified historic cost:			
<b>Balance at 31 March 2012</b>	<b>3.2</b>	<b>0.7</b>	<b>3.9</b>
Balance at 1 April 2011	3.0	0.3	3.3

## 15 Impairments

Impairments occurring during the year were either charged to Profit or Loss, or Other Comprehensive Income as follows:

Group	Note	2013		2012	
		Profit or Loss £ million	Profit or Loss £ million	Other Comprehensive Income £ million	Other Comprehensive Income £ million
Investment in Subsea Asset Location Technologies Limited	13	–	–	0.3	–
Portsmouth Main site	12	0.1	1.3	–	–
Biological High Containment Facility	12	0.2	1.2	–	–
Land (including MHCA*)	12	–	–	0.3	–
Buildings (including MHCA)	12	0.1	–	3.7	1.9
Plant and machinery (MHCA)	12	0.3	–	–	0.3
<b>Total</b>		<b>0.7</b>	<b>2.5</b>	<b>4.3</b>	<b>2.2</b>

Trading Fund	Note	2013		2012	
		Profit or Loss £ million	Profit or Loss £ million	Other Comprehensive Income £ million	Other Comprehensive Income £ million
Portsmouth Main site	12	0.1	1.3	–	–
Biological High Containment Facility	12	0.2	1.2	–	–
Land (including MHCA)	12	–	–	0.3	–
Buildings (including MHCA)	12	0.1	–	3.7	1.9
Plant and machinery (MHCA)	12	0.3	–	–	0.3
<b>Total</b>		<b>0.7</b>	<b>2.5</b>	<b>4.0</b>	<b>2.2</b>

\*Modified Historic Cost Accounting

## 16 Work in progress

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Central Government bodies	1.8	2.0	1.8	2.0
Non-public sector organisations	0.3	0.4	0.3	0.4
<b>Total</b>	<b>2.1</b>	<b>2.4</b>	<b>2.1</b>	<b>2.4</b>

## 17 Trade receivables and other current assets

Amounts falling due within one year:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Trade receivables</b>	<b>32.0</b>	<b>24.1</b>	<b>31.8</b>	<b>23.7</b>
Central Government bodies	30.6	21.0	30.6	21.1
Trading funds	0.1	–	0.1	–
Non-public sector organisations	1.3	3.1	1.1	2.6
<b>Amounts recoverable under contracts</b>	<b>182.1</b>	<b>163.3</b>	<b>182.1</b>	<b>163.3</b>
Central Government bodies	180.2	162.4	180.2	162.4
Non-public sector organisations	1.9	0.9	1.9	0.9
<b>Deposits and advances – staff receivables</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
<b>Other receivables – Central Government bodies</b>	<b>0.9</b>	<b>0.4</b>	<b>0.9</b>	<b>0.4</b>
<b>Taxation</b>	<b>–</b>	<b>0.1</b>	<b>–</b>	<b>–</b>
<b>Prepayments and accrued income</b>	<b>5.5</b>	<b>3.8</b>	<b>5.5</b>	<b>3.8</b>
Local authorities	0.3	0.3	0.3	0.3
Non-public sector organisations	5.2	3.5	5.2	3.5
<b>Total</b>	<b>220.7</b>	<b>191.9</b>	<b>220.5</b>	<b>191.4</b>

Amounts falling due after more than one year:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Deposits and advances – staff receivables</b>	<b>0.7</b>	<b>0.8</b>	<b>0.7</b>	<b>0.8</b>
<b>Other receivables – Central Government bodies</b>	<b>–</b>	<b>–</b>	<b>4.8</b>	<b>4.2</b>
<b>Total</b>	<b>0.7</b>	<b>0.8</b>	<b>5.5</b>	<b>5.0</b>

Within the Trading Fund's other receivables falling due after more than one year is a current account with Ploughshare of £4.8 million (2011/12: £4.2 million). The balance on this account represents amounts due for services provided. There is no intention to demand payment during the next year.

## 18 Cash and cash equivalents

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Balance brought forward	79.6	72.2	78.4	70.3
Net change in cash and cash equivalent balances	(1.1)	7.4	(1.0)	8.1
<b>Balance carried forward</b>	<b>78.5</b>	<b>79.6</b>	<b>77.4</b>	<b>78.4</b>

The following balances were held at:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
Commercial banks – cash	2.1	2.2	1.0	1.0
Commercial banks – short-term investments	71.4	67.4	71.4	67.4
Debt Management Office – short-term investments	5.0	10.0	5.0	10.0
<b>Balance carried forward</b>	<b>78.5</b>	<b>79.6</b>	<b>77.4</b>	<b>78.4</b>



## 19 Trade payables and other liabilities

Amounts falling due within one year:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Current part of long-term loan payable to MOD</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>
<b>VAT</b>	<b>(4.5)</b>	<b>2.9</b>	<b>(4.5)</b>	<b>2.9</b>
<b>Other taxation and social security</b>	<b>5.2</b>	<b>5.3</b>	<b>5.2</b>	<b>5.3</b>
<b>Payments received on account</b>	<b>10.3</b>	<b>9.8</b>	<b>10.3</b>	<b>9.8</b>
Central Government bodies	8.0	7.1	8.0	7.1
Non-public sector organisations	2.3	2.7	2.3	2.7
<b>Trade payables</b>	<b>48.0</b>	<b>53.7</b>	<b>48.0</b>	<b>53.7</b>
Central Government bodies	2.9	1.3	2.9	1.3
Trading funds	0.1	–	0.1	–
Non-public sector organisations	45.0	52.4	45.0	52.4
<b>Other payables</b>	<b>4.2</b>	<b>4.3</b>	<b>4.2</b>	<b>4.3</b>
Central Government bodies	4.1	4.0	4.1	4.0
Non-public sector organisations	0.1	0.3	0.1	0.3
<b>Pay and expenses – staff payables</b>	<b>3.6</b>	<b>3.5</b>	<b>3.6</b>	<b>3.5</b>
<b>Accruals and deferred income</b>	<b>102.0</b>	<b>75.4</b>	<b>101.9</b>	<b>75.2</b>
Central Government bodies	3.8	2.8	3.8	2.8
NHS Trusts	0.1	0.1	0.1	0.1
Local authorities	1.2	0.7	1.2	0.7
Non-public sector organisations	95.7	71.8	95.6	71.6
Staff	1.2	–	1.2	–
<b>Dividend</b>	<b>10.0</b>	<b>8.5</b>	<b>10.0</b>	<b>8.5</b>
<b>Total</b>	<b>182.0</b>	<b>166.6</b>	<b>181.9</b>	<b>166.4</b>

Amounts falling due after more than one year:

	2013 Group £ million	2012 Group £ million	2013 Trading Fund £ million	2012 Trading Fund £ million
<b>Non-current part of long-term loan payable to MOD</b>	<b>19.4</b>	<b>22.5</b>	<b>19.4</b>	<b>22.5</b>
<b>Accruals and deferred income – non-public sector organisations</b>	<b>–</b>	<b>0.1</b>	<b>–</b>	<b>0.1</b>
<b>Total</b>	<b>19.4</b>	<b>22.6</b>	<b>19.4</b>	<b>22.6</b>

With the exception of long-term loans, long-term creditors are held undiscounted.

## 20 Provisions for liabilities and charges

Group and Trading Fund

	liab provisions £ million	Onerous contracts £ million	Early departure costs £ million	Total £ million
Balance at 1 April 2012	1.4	1.1	0.4	2.9
Provided in the year	0.1	0.1	0.3	0.5
Provisions utilised in the year	(0.4)	–	(0.6)	(1.0)
<b>Balance at 31 March 2013</b>	<b>1.1</b>	<b>1.2</b>	<b>0.1</b>	<b>2.4</b>

Analysis of expected timing of cash flows:

	i lab provisions £ million	Onerous contracts £ million	Early departure costs £ million	Total £ million
Between 1 April 2013 and 31 March 2014	0.3	0.1	0.1	0.5
Between 1 April 2014 and 31 March 2015	0.3	–	–	0.3
Between 1 April 2015 and 31 March 2020	0.5	–	–	0.5
Between 1 April 2020 and 31 March 2025	–	1.1	–	1.1
From 1 April 2025 thereafter	–	–	–	–
<b>Balance at 31 March 2013</b>	<b>1.1</b>	<b>1.2</b>	<b>0.1</b>	<b>2.4</b>

No amounts are expected to be called after 1 April 2025 and therefore no further analysis is necessary for amounts after this date. The provisions have not been discounted. The effect of discounting is not material.

#### i lab (rationalisation programme) provisions

Due to the Trading Fund's withdrawal from the Farnborough and Malvern sites, there have been redundancies for some non-mobile staff. The provision is not expected to be fully utilised until the year ending 31 March 2020.

#### Onerous contracts

A lease for a facility (owned by the Trading Fund) to remain at the Farnborough site is in place. This defers a dilapidation obligation under the Farnborough lease to beyond a year.

At period end there was an employee dispute where it has been advised that settlement will be the most likely outcome.

#### Early departure costs

The Trading Fund meets the additional costs of benefits beyond the normal PCSPS benefits in respect of employees who retire early by paying the required amounts annually to the PCSPS over the period between early departure and normal retirement date. The Trading Fund provides for this in full when the early retirement programme becomes binding.

Payment values are established by the Defence Business Services (DBS).

The comparatives for the year ended 31 March 2012 are:

Group and Trading Fund

	i lab provisions £ million	Onerous contracts £ million	Early departure costs £ million	Total £ million
Balance at 1 April 2011	1.8	2.2	0.8	4.8
Provided in the year	0.1	–	0.6	0.7
Provisions not required written-back	–	(0.5)	(0.1)	(0.6)
Provisions utilised in the year	(0.5)	(0.6)	(0.9)	(2.0)
<b>Balance at 31 March 2012</b>	<b>1.4</b>	<b>1.1</b>	<b>0.4</b>	<b>2.9</b>

Analysis of expected timing of cash flows:

	i lab provisions £ million	Onerous contracts £ million	Early departure costs £ million	Total £ million
Between 1 April 2012 and 31 March 2013	0.4	–	0.3	0.7
Between 1 April 2013 and 31 March 2014	0.3	–	0.1	0.4
Between 1 April 2014 and 31 March 2019	0.7	–	–	0.7
Between 1 April 2019 and 31 March 2024	–	1.1	–	1.1
From 1 April 2024 thereafter	–	–	–	–
<b>Balance at 31 March 2012</b>	<b>1.4</b>	<b>1.1</b>	<b>0.4</b>	<b>2.9</b>

No amounts are expected to be called after 1 April 2024, and therefore no further analysis is necessary for amounts after this date.

## 21 Long-term loans

	2013 Group and Trading Fund £ million	2012 Group and Trading Fund £ million
Balance brought forward	25.8	29.0
Repayment of loan	(3.2)	(3.2)
<b>Balance carried forward</b>	<b>22.6</b>	<b>25.8</b>

A £21.5 million loan was received from MOD on 11 September 2008 and is repayable by instalments until 31 March 2020. Interest is charged at 4.53 per cent per annum. The interest rate is fixed for the duration of the loan. A further loan of £10.7 million was received from MOD on 15 October 2009, and is repayable by instalments until 31 March 2020. Interest is charged at 2.75 per cent per annum. The interest rate is fixed for the duration of the loan.

	2013 Group and Trading Fund £ million	2012 Group and Trading Fund £ million
Analysis of repayments:		
Within one year	3.2	3.2
After one year but within two years	3.2	3.2
After two years but within five years	9.7	9.7
After five years	6.5	9.7
<b>Total</b>	<b>22.6</b>	<b>25.8</b>

The carrying amount of the loan, following amortisation using the effective interest rate method, is as follows:

	2013 Group and Trading Fund £ million	2012 Group and Trading Fund £ million
Balance brought forward	26.0	29.3
Repayment of principal	(3.2)	(3.2)
Movement in finance charge	(0.1)	(0.1)
<b>Balance carried forward</b>	<b>22.7</b>	<b>26.0</b>

## 22 Commitments under leases

### Operating leases

Commitments under non-cancellable operating leases to pay rentals after 31 March are analysed as follows:

	2013 Group and Trading Fund £ million	2012 Group and Trading Fund £ million
<b>Property:</b>		
Due within one year	3.7	4.1
Due after one year but within five years	13.6	15.1
<b>Total</b>	<b>17.3</b>	<b>19.2</b>

### Plant and equipment:

Due within one year	–	0.1
<b>Total</b>	<b>–</b>	<b>0.1</b>

The Group leases various properties, including land, under short-term cancellable operating lease agreements. There is only one significant lease - the property at Fort Halstead. To cancel the lease, a notice period of not less than five years is required of the Group. The landlord does not have a right to cancel. No renewal or purchase options exist. There is a rent review every five years, performed on a Market Value basis. The last review was performed for 1 April 2007. The rent is currently being renegotiated with the landlord. There is no contingent rent or any significant restrictions concerning the use of the property.

## 23 Capital commitments

	2013 Group and Trading Fund £ million	2012 Group and Trading Fund £ million
<b>Property, plant and equipment:</b>		
Capital expenditure that has been contracted for but has not been provided for in the accounts	23.7	5.8
Capital expenditure that has been authorised but has not been provided for in the accounts	58.2	63.1
<b>Intangible assets:</b>		
Capital expenditure that has been contracted for but has not been provided for in the accounts	0.3	0.1
Capital expenditure that has been authorised but has not been provided for in the accounts	0.2	0.1

The Trading Fund has obtained Ministerial approval for a site rationalisation programme (known as Helios) that will result in migration away from the Fort Halstead site and the construction of replacement facilities at Porton Down. The programme is in the design phase prior to tendering, and the final approval based on confirmed costs is not expected until summer 2013. The authorised amount of £51.0 million is included as property, plant and equipment that has been authorised but has not been provided for in the accounts. The authorised amount is based on the indicative costs supplied to the Minister for Defence Equipment, Support and Technology when the outline approval was obtained in June 2011.

## 24 Financial instruments

Financial assets and liabilities are recognised where the Group has become a party to contractual terms of a financial instrument. The Trading Fund and its subsidiary undertaking's principal financial instruments comprise cash, short-term deposits and long-term borrowings. The main purpose of these financial instruments is to finance the Group's operations. The Group has various other financial instruments, such as trade receivables and trade payables, that arise directly from its operations.

The Group has no embedded derivatives that require separation from its host contract and measurement at fair value through profit or loss. It has been the Group's policy throughout the year that no trading in financial instruments should be undertaken.

### Categories of financial instruments

Trade and other receivables, and cash and cash equivalents, have been classified as loans and receivables. Trade and other payables have been classified as other financial liabilities. The fair value of these financial assets and financial liabilities approximates carrying value due to the short-term nature of these financial instruments. The loan received from MOD has been classified as other financial liabilities and is held at amortised cost using the effective interest rate method. The carrying value of the loan is shown in Note 21.

Equity holdings of the group are classified as available-for-sale investments and are disclosed in Note 13.

The main risks arising from the Group's financial instruments are liquidity risk and foreign currency risk. The Board reviews and agrees policies for managing each of these risks. These policies have remained unchanged throughout the year.

The category of financial instrument that has produced finance income received and receivable, and the category of financial instrument that has produced finance charges paid and payable, is disclosed in Notes 8 and 9.

### Liquidity risk

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank current account facilities and investment of surplus funds in short-term, interest-bearing accounts. For the Group, liquidity risk primarily relates to managing payment and receipt of trade and other payables, and of trade and other receivables, arising out of normal operations. This is managed through matching of credit terms with suppliers and customers.

The following is an analysis of financial liabilities by remaining contractual maturity:

	Matures within 1 year £ million	Matures between 1 and 2 years £ million	Matures between 2 and 3 years £ million	Matures between 3 and 4 years £ million	Matures between 4 and 5 years £ million	Matures after more than 5 years £ million
Trade payables	48.0	–	–	–	–	–
Other payables:						
Staff/payroll payables	7.3	–	–	–	–	–
Taxation and social security	0.7	–	–	–	–	–
Payments on account	10.4	–	–	–	–	–
Other	0.4	–	–	–	–	–
Accruals and deferred income	102.0	–	–	–	–	–
Provisions	0.5	0.3	0.2	0.2	0.1	1.1
Loan provided by MOD:						
Principal	3.2	3.2	3.2	3.2	3.2	6.6
Dividend	10.0	–	–	–	–	–
<b>Total financial liabilities</b>	<b>182.5</b>	<b>3.5</b>	<b>3.4</b>	<b>3.4</b>	<b>3.3</b>	<b>7.7</b>

The liquidity risks inherent in this are met by close management of the Group's financial assets. Amounts recoverable under contract are invoiced weekly or monthly in accordance with contract terms, and the receipts are invested on short-term deposits designed to mature when liabilities fall due. The following is a maturity analysis of financial assets:

	Matures within 1 year £ million	Matures between 1 and 2 years £ million	Matures between 2 and 3 years £ million	Matures between 3 and 4 years £ million	Matures between 4 and 5 years £ million	Matures after more than 5 years £ million
Work in progress	2.1	–	–	–	–	–
Trade receivables	32.0	–	–	–	–	–
Amounts recoverable under contract	182.1	–	–	–	–	–
Prepayments	5.5	–	–	–	–	–
Other receivables:						
Staff receivables	0.2	0.1	0.1	0.1	0.1	0.3
Other	0.9	–	–	–	–	–
<b>Total financial assets</b>	<b>222.8</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>

### Market risk

#### Foreign currency risk:

The Group has limited transactional currency exposures. Such exposures arise from the sales or purchases by an operating unit in currencies other than sterling and, for staff who are posted overseas, payment of salaries in the host currency. Foreign currency contracts require approval from the Finance Director. It is the Trading Fund's policy to include a clause that allows for the price of a foreign currency sales contract to be revised if the relevant exchange rate fluctuates by more than 2.5 per cent during the life of the contract. This clause enables the Trading Fund to reserve the right to revise the price but it is not routinely exercised. The Group does not use forward currency contracts to eliminate such exposure to currency losses.

As at 31 March 2013, the Group's exposure to currency exchange movements, denominated in sterling, is:

	US Dollar £'000	Euro £'000
Assets	1,120.2	36.9
Liabilities	411.7	399.3

No sensitivity analysis has been performed because the exposure to currency exchange movement risk is not material.

**Interest rate risk:**

There is no interest rate risk in respect of short-term investments. All investments are at a fixed rate.

As at 31 March 2013, the Group's investments at fixed rates are:

Counterparty	Maturity date	Amount invested £ million	Rate %
Lloyds TSB Bank	2 April 2013	22.4	0.30
Debt Management Office	5 April 2013	5.0	0.25
Lloyds TSB Bank	12 April 2013	7.0	0.38
Lloyds TSB Bank	19 April 2013	7.0	0.38
Lloyds TSB Bank	25 April 2013	1.0	0.39
Lloyds TSB Bank	25 April 2013	7.0	0.39
Lloyds TSB Bank	30 April 2013	8.0	0.39
Lloyds TSB Bank	3 May 2013	6.0	0.31
Lloyds TSB Bank	7 May 2013	3.0	0.39
Lloyds TSB Bank	8 May 2013	3.0	0.39
Lloyds TSB Bank	9 May 2013	7.0	0.36

There is no interest rate risk with the two loans repayable to MOD. The interest rates are fixed.

	Date provided	Maturity date	Principal £ million	Rate %
Loan from MOD	11 September 2008	31 March 2020	21.5	4.53
Loan from MOD	15 October 2009	31 March 2020	10.7	2.75

**Credit risk**

Exposure to credit risk is low. All work is performed under contract terms. More than 90 per cent of trading is undertaken with the Group's immediate owner, MOD, and more than 95 per cent of trading is undertaken with Government departments. All non-Exchequer parties are credit checked prior to contract agreement and are regularly monitored. The standard term negotiated with both customers and suppliers is a 30-day credit period.

The following disclosure provides details of the Group's trade receivables that are beyond their due date:

0 - 90 days	91 - 180 days	181 - 270 days	271 - 360 days	Over 360 days
£'000	£'000	£'000	£'000	£'000
3,065.6	346.0	12.9	40.3	188.1

No provision for bad debt has been made because there are no indications of any improbable recovery.

The maximum exposure to credit risk can be broken down as follows:

	£ million	£ million
Trade receivables		32.0
Amounts recoverable under contract		182.1
Other receivables:		
Other	0.9	
Staff loans, advances and imprests	0.9	
		1.8
Cash and cash equivalents:		
Cash at bank – Lloyds TSB Bank	1.0	
Cash at bank – HSBC Bank	1.1	
Short-term investments – Lloyds TSB Bank	71.4	
Short-term investments – Debt Management Office	5.0	
		78.5
<b>Maximum exposure to credit risk</b>		<b>294.4</b>

The amount quoted above is the technical maximum, quantitative exposure, but within this, £200.8 million relates to MOD. Credit risk with MOD is minimal since it is a central Government department, and is the Group's immediate Owner.

No capital disclosures are necessary. A buffer for risk to creditors does not arise because public sector financing is tax based.

No further disclosure is necessary to enable the Group's overall financial position, performance and cash flows to be understood.

## 25 Public dividend capital

Group and Trading Fund

The FReM interprets public dividend capital as equity.

	2013 £ million	2012 £ million
Balance brought forward	50.4	50.4
<b>Balance carried forward</b>	<b>50.4</b>	<b>50.4</b>

## 26 Losses and special payments

During the year ended 31 March 2013, there were no losses or special payments exceeding £250,000. Three settlements were made relating to severance disputes totalling £27,000.

## 27 Related-party transactions

Dstl is a Trading Fund owned by MOD.

### MOD

MOD is regarded as a related party. During the year, the Trading Fund had various material transactions with MOD and all transactions were carried out under contract terms and subject to the normal course of internal and external audit:

	2013 £'000	2012 £'000
Sales (2012 restated)	589,157.7	557,261.7
Purchases	21,723.8	21,399.7
Receivables	200,826.0	173,538.7
Payables	11,012.9	7,727.0

Sales include £4,630.2 thousand of other operating income. Sales for 2012 has been restated to include £4,515.3 thousand of other operating income.

Purchases and Payables for 2012 have been reduced and restated for Meteorological Office by £1,554.8 thousand and £447.8 thousand, respectively.

Related-party transactions with Meteorological Office is now disclosed under other public sector bodies below.

In addition to purchases, an ordinary dividend of £10.0 million, payable to MOD, was agreed (2012: £8.5 million). Interest paid and payable on the loans totalled £0.9 million, measured at amortised cost using the effective interest rate method (2012: £1.0 million). Repayments of the principal during the year totalled £3.2 million. Final repayment is due on 31 March 2020. See Note 21.

### Ploughshare Innovations Limited

Ploughshare is a wholly owned subsidiary undertaking of the Trading Fund. Details are provided in Note 13. Inter-company trading has been eliminated on consolidation using the purchase method. During the year, the following trading occurred with Ploughshare, which was carried out under standard contract terms:

	2013 £'000	2012 £'000
Sales and other operating income	468.1	527.2
Purchases and expenses	91.8	113.3
Receivables	4,759.9	4,215.2
Payables	-	-

Ownership of the Trading Fund's holdings in its available-for-sale investment with Remo Technologies Limited transferred to Ploughshare during the reporting year ended 31 March 2007.

Ownership of the Trading Fund's holdings in its available-for-sale investment with P2i Limited transferred to Ploughshare during the reporting year ended 31 March 2009. Ownership of the Trading Fund's holdings in its available-for-sale investment with Enigma Diagnostics Limited (Enigma) transferred to Ploughshare during the current year at a value of £3.0 million. Ploughshare has its own investment in Enigma. Ownership of the investments has remained with the subsidiary undertaking during the current reporting year.

**Available-for-sale investments and associate**

Details of the available-for-sale investments and the associate Tetricus Limited, are provided in Note 13. During the year, the following trading occurred with these entities, which was carried out under standard contract terms:

	Sales		Purchases		Receivables		Payables	
	2013 £'000	2012 £'000	2013 £'000	2012 £'000	2013 £'000	2012 £'000	2013 £'000	2012 £'000
Claresys Limited	37.0	25.2	–	–	93.6	49.5	–	–
Enigma Diagnostics Limited	14.8	41.7	–	21.9	1.5	23.5	–	26.3
Esroe Limited	42.5	19.3	72.4	–	12.0	–	–	–
P2i Limited	–	19.5	94.3	–	–	6.1	–	–
ProKyma Limited	–	–	47.0	47.0	–	–	–	–
Remo Technologies Limited	–	–	32.7	12.9	–	–	18.7	–
Subsea Asset Location Technologies Limited	26.5	16.4	–	0.1	–	–	–	–
Tetricus Limited	222.9	103.5	–	–	92.4	–	–	–

R Drummond is on the Board of Directors of Ploughshare, and is a director in common with RMD 100 Limited. During the year Ploughshare made purchases from RMD Limited of £37.9 thousand (2012: £37.3 thousand), and has a payables balance of £3.0 thousand (2012: 3.0 thousand).

P Hotten is on the Board of Directors of Ploughshare, and is a director in common with Subsea Asset Location Technologies Limited.

S Callister is on the Board of Directors of Ploughshare, and is a director in common with Claresys Limited and Esroe Limited.

**Other public sector bodies**

Other public sector bodies are regarded as related parties by virtue of being under the same common control. During the year, the Group had various material transactions with certain public sector bodies. All transactions are carried out on standard contract terms and are subject to the normal course of internal and external audit.

	Sales		Purchases		Receivables		Payables	
	2013 £'000	2012 £'000	2013 £'000	2012 £'000	2013 £'000	2012 £'000	2013 £'000	2012 £'000
UK Space Agency	406.7	288.4	–	–	50.4	69.9	–	0.4
Cabinet Office (excluding PCSPS)	1.8	0.2	125.7	157.9	–	6.7	213.9	157.9
Department for Energy and Climate Change	–	60.7	–	–	–	–	–	–
Department for the Environment, Food and Rural Affairs	206.9	230.3	104.1	321.4	29.5	110.5	12.2	171.9
Department for Business, Innovation and Skills	92.7	106.0	8.3	–	–	–	–	–
Department of Health	–	–	1,671.5	–	–	–	1,000.0	–
Department for Transport	2,856.5	2,425.4	–	–	1,810.3	978.5	–	–
Drinking Water Inspectorate	61.3	21.0	–	–	34.6	–	25.3	–
Engineering and Physical Sciences Research Council	–	–	1,134.5	3,623.8	–	–	–	139.8
Food Standards Agency	–	3.5	–	–	–	–	–	–
Foreign and Commonwealth Office	21.5	87.3	–	9.6	0.2	28.0	37.7	1.7
Government Communications Bureau	9,922.0	7,012.2	482.3	333.4	4,319.1	2,764.7	1,214.4	712.1
Government Communications Centre	32.1	48.0	435.4	401.4	10.6	38.5	34.1	7.2
Health and Safety Executive	–	9.3	1.5	2.5	–	–	2.6	1.9
Health and Safety Laboratory	–	–	4.6	76.1	–	–	–	–
Health Protection Agency	855.1	706.6	897.5	155.1	39.9	119.5	387.2	11.4
Home Office	12,669.5	13,128.5	101.0	158.4	3,490.6	4,634.0	237.7	573.4
Meteorological Office	3.8	4.9	1,402.6	1,769.9	–	–	58.9	447.8
National School of Government	–	–	–	75.9	–	–	–	5.1
Northern Ireland Department of Justice	–	305.4	–	–	–	–	360.0	606.1
Technology Strategy Board	–	104.8	–	1,260.6	11.0	11.9	175.9	276.6
UK Border Agency	64.7	–	–	–	64.7	–	–	–
Cabinet Office - PCSPS	–	–	30,853.9	28,726.4	–	–	3,700.4	3,425.5
HM Revenue and Customs:								
Employer's and Employees' Income Tax and National Insurance	–	–	45,132.3	46,281.2	–	–	5,459.9	5,513.3
VAT	–	–	54,080.1	45,727.9	4,537.8	–	–	2,910.1

No Minister, Board member, key manager or other related parties has undertaken any material transactions with the Group during the year. Any compensation paid to senior management is disclosed in the Remuneration Report.



## 28 Contingent liabilities

There were no contingent liabilities at 31 March 2013 or 31 March 2012.

## 29 Events after the reporting period

No events have occurred subsequent to the financial year end that require disclosure in these financial statements.

## 30 Operating segments

Group and Trading Fund

All of the Group's business reporting segments are disclosed to enable users of these financial statements to evaluate the nature and financial effects of the Group's business activities. The Group's corporate support functions have been aggregated.

All operating segments derive their revenues from the provision of specialist and technical services. The Group derives more than 90 per cent of its revenues from MOD, and more than 95 per cent of its revenues from Government departments. More detailed disclosures can be found in Note 27, related-party transactions.

More than 95 per cent of revenue is derived from UK sources. The Board does not review the business on a geographical basis. A geographical analysis would not be necessary to aid users' understanding of these financial statements.

Operating segment analysis for the year ended 31 March 2013:

Operating segment	Revenue (internal and external) £ million	Depreciation £ million	Amortisation £ million	Impairments through profit or loss £ million	Impairments through other comprehensive income £ million	Finance income £ million	Finance expense £ million	Retained profit/(loss) for the year £ million	Capital expenditure £ million	Total assets £ million	Total liabilities £ million
Air and Weapons Systems	45.1	–	–	–	–	–	–	3.4	–	9.4	5.0
Biomedical Sciences	41.4	0.2	–	–	–	–	–	1.3	0.2	9.5	6.8
Detection	49.7	0.1	–	–	–	–	–	4.9	0.5	16.5	7.1
Environmental Sciences	20.0	0.1	–	–	–	–	–	(1.1)	0.1	4.1	1.4
Information Management	37.3	0.1	–	–	–	–	–	1.4	0.1	9.6	5.0
Joint Systems	12.0	–	–	–	–	–	–	0.7	–	3.3	1.6
Land Battlespace Systems	35.8	–	0.1	–	–	–	–	1.1	–	6.7	3.6
Naval Systems	30.9	0.2	–	–	–	–	–	1.8	–	6.0	3.2
Physical Sciences	40.6	0.2	–	–	–	–	–	3.6	0.4	13.5	7.0
Policy and Capability Studies	32.1	–	–	–	–	–	–	4.4	–	7.4	3.3
Programme Office	194.5	–	–	–	–	–	–	0.3	–	87.6	67.6
Security Sciences	98.6	0.7	–	–	–	–	–	3.1	0.8	33.8	17.0
Sensors and Countermeasures	57.4	0.2	–	–	–	–	–	2.8	0.1	22.5	14.4
Corporate	10.7	9.7	0.8	0.7	4.0	0.5	0.9	(8.4)	12.6	293.5	60.7
Ploughshare Innovations Limited	0.7	–	–	–	0.3	–	–	(0.9)	–	6.9	4.9
Internal trading group consolidation adjustments	(78.1)	–	–	–	–	–	–	(2.9)	–	(7.8)	(4.8)
<b>Total as per financial statements</b>	<b>628.7</b>	<b>11.5</b>	<b>0.9</b>	<b>0.7</b>	<b>4.3</b>	<b>0.5</b>	<b>0.9</b>	<b>15.5</b>	<b>14.8</b>	<b>522.5</b>	<b>203.8</b>

## Operating segment analysis for the year ended 31 March 2012

Operating segment	Revenue (internal and external) £ million	Depreciation £ million	Amortisation £ million	Impairments through profit or loss £ million	Impairments through other comprehensive Income £ million	Finance income £ million	Finance expense £ million	Retained profit/(loss) for the year £ million	Capital expenditure £ million	Total assets £ million	Total liabilities £ million
Air and Weapons Systems	43.9	–	–	–	–	–	–	4.0	–	9.3	4.0
Biomedical Sciences	40.1	0.2	–	–	–	–	–	2.3	0.3	8.8	6.9
Detection	48.5	0.1	–	–	–	–	–	4.8	1.3	16.1	6.0
Environmental Sciences	18.8	0.3	–	–	–	–	–	(0.9)	0.4	3.5	0.8
Information Management	27.5	–	–	–	–	–	–	1.0	0.1	4.2	1.5
Joint Systems	14.9	–	–	–	–	–	–	0.9	–	4.7	2.3
Land Battlespace Systems	33.1	–	–	–	–	–	–	2.2	–	5.4	2.8
Naval Systems	29.0	0.2	–	–	–	–	–	2.3	–	6.7	4.2
Physical Sciences	42.3	0.2	–	–	–	–	–	3.3	0.1	15.5	8.4
Policy and Capability Studies	35.8	–	–	–	–	–	–	5.2	–	5.1	2.1
Programme Office	174.3	–	–	–	–	–	–	2.4	–	71.9	57.8
Security Sciences	100.8	0.5	–	–	–	–	–	5.7	2.7	34.3	15.7
Sensors and Countermeasures	53.3	0.2	–	–	–	–	–	2.9	0.2	17.2	11.0
Corporate	10.0	11.6	1.1	2.5	2.2	0.5	1.0	(14.0)	4.6	291.8	68.4
Ploughshare Innovations Limited	1.1	–	–	–	–	–	–	(0.4)	–	4.2	4.4
Internal trading group consolidation adjustments	(77.7)	–	–	–	–	–	–	–	–	(4.2)	(4.2)
<b>Total as per financial statements</b>	<b>595.7</b>	<b>13.3</b>	<b>1.1</b>	<b>2.5</b>	<b>2.2</b>	<b>0.5</b>	<b>1.0</b>	<b>21.7</b>	<b>9.7</b>	<b>494.5</b>	<b>192.1</b>

More detailed information about the services provided by the business operating segments are as follows:

#### **Air and Weapons Systems**

Provides analysis of systems on platforms and weapons systems that use the aerial battlespace.

#### **Biomedical Sciences**

Provides MOD with the science base for the development of effective countermeasures for personnel against chemical and biological agents, blast and ballistics.

#### **Detection**

Conducts research and provides advice on the detection and decontamination of chemical and biological agents and explosives.

#### **Environmental Sciences**

Manages, monitors and controls environmental, radiological and chemical weapons demilitarisation hazards.

#### **Information Management**

Provides high-quality and timely technical support, analysis, consultancy and research.

#### **Joint Systems**

Provides systems advice in support of MOD decision-making on complex issues that cross environmental boundaries.

#### **Land Battlespace Systems**

Provides analysis and advice on land systems, including vehicles, weapons and battlefield command and control systems.

#### **Naval Systems**

Provides analysis and advice on all maritime systems.

#### **Physical Sciences**

Provides protection science, dispersion physics, material science and armour physics expertise.

#### **Policy and Capability Studies**

Undertakes high-level operational analysis to support MOD and Government.

#### **Programme Office**

Responsible for leading the Defence S&T Programme – designing, formulating and commissioning programmes with industry, academia and other research organisations.

#### **Security Sciences**

Provides the focus for counterterrorism and support to front-line operations.

#### **Sensors and Countermeasures**

Researches and develops sensor and countermeasure technology for MOD by pushing the boundaries of science to protect lives at sea, on land and in the air.

#### **Corporate**

Main functions and activities include:

- corporate governance and centralised functions such as finance and treasury management, human resources management, and commercial contracting management
- estate management
- business information systems
- knowledge services, providing access to Dstl's internal knowledge base, MOD-funded reports and the wider scientific and technical literature, together with a range of information and analysis services.

#### **Ploughshare Innovations Limited**

It is Government policy to transfer technical knowledge, wherever possible, to the economy for exploitation of its full commercial and social potential. Ploughshare is a wholly owned subsidiary, incorporated on 6 April 2005 as a vehicle for the transfer and management of the Trading Fund's Intellectual Property.

# Dstl Sustainability Report for the year ended 31 March 2013

This report is produced in line with the latest public sector reporting requirements, as detailed in the FReM. It has not been subject to NAO audit. Dstl has made significant progress in meeting its sustainability targets in recent years. We actively encourage sustainable working and have undertaken a range of green commuter and business travel initiatives. Target setting and monitoring is overseen by the Dstl Sustainability Steering Group, which includes senior representatives from the relevant areas and Dstl's Sustainability Champion (who is a member of the Dstl Executive). Sustainability performance reporting is also embedded in Dstl's balanced scorecard and monitored on an ongoing basis. The following provides a breakdown of performance in key environmental areas.

Greenhouse gas emissions		2009/10	2010/11	2011/12	2012/13	Graphical Analysis
Non-financial indicators tonnes of carbon dioxide emissions (tCO <sub>2</sub> e)	Gross emissions for scopes 1 and 2 energy (Note 4)					<p><b>Scope 1&amp;2 Greenhouse Gas Emissions</b></p>
	Oil	6,431	6,849	7,127	6,172	
	Electric	26,747	27,219	26,392	27,990	
	Gas	9,392	10,664	8,481	8,620	
	LPG			100	61	
	Fugitive Gases	69	102	117	709	
	<b>Total gross emissions for scopes 1 and 2 energy</b>	<b>42,639</b>	<b>44,834</b>	<b>42,217</b>	<b>43,189</b>	
	Gross emissions scope 3 business travel (Note 6)	4,827	3,910	4,397	4,324	
	<b>Total gross emissions for scopes 1, 2 and 3</b>	<b>47,467</b>	<b>48,745</b>	<b>46,613</b>	<b>47,512</b>	
	Net emissions for scopes 1 and 2 energy	42,639	44,834	42,217	43,189	
Net emissions for scope 3 business travel	4,827	3,910	4,397	4,324	<p><b>Scope 3 Greenhouse Gas Emissions</b></p>	
Financial indicators (£'000)						
Expenditure on energy	£5,212	£6,391	£7,144	£7,124		
Expenditure on official business travel	£8,734	£7,155	£7,621	£7,727		
	<b>Total expenditure on energy and business travel</b>	<b>£13,946</b>	<b>£13,546</b>	<b>£14,765</b>	<b>£14,851</b>	

## Targets and narrative

We are currently working to achieve the 2015 Greening Government Targets. The central target is to reduce greenhouse gas emissions by 25 per cent, from a 2009/10 baseline, from the whole estate and business-related transport. Our success so far has been due largely to a site rationalisation programme and improved energy monitoring and tracking, which has helped to pinpoint opportunities for efficiencies. We have now commenced a further site rationalisation programme and are adopting a flexible desking strategy for all new buildings and a large percentage of the legacy estate, to ensure greater energy efficiency per head in the future. This programme is planned for completion in 2017, which means we will be unlikely to achieve the Greening Government Target by 2015.

## Commentary on direct impacts

Our main direct impacts are electricity consumption and business travel. Our specialist laboratory work inherently requires a certain level of electricity consumption, with significant national and international business travel also required to support operations. State-of-the-art video conferencing has also been implemented, which is helping to reduce the amount of travel for routine inter-site meetings. This year, although hoping to see a reduction in our use of electricity and gas, our consumption unfortunately increased due to the impact of the extended cold winter in the UK.

## Overview of indirect impacts

We aim to reduce our reliance on electricity generated by fossil fuels and to introduce localised generation where possible. This will support business resilience and a significant wind turbine project is currently being taken to the full planning stage.

Waste		2009/10	2010/11	2011/12	2012/13	Graphical Analysis	
Non-financial indicators (t) (tonnes)	<b>Total waste</b>	<b>2,203</b>	<b>1,661</b>	<b>1,777</b>	<b>1,642</b>		
	Hazardous waste internal incineration solid	225	242	190	162		
	Hazardous waste internal incineration wet	47	16	79	34		
	Hazardous waste – external disposal	62	58	40	71		
	Hazardous waste – total	334	316	309	268		
	Non-hazardous waste	Landfill	144	109	167		127
		Reused/recycled	1,517	995	1,052		1,005
		Internal incineration solid	0	0	0		0
		Incinerated/energy from waste	209	242	248		243
composted		0	0	0	0		
ICT Equipment	0	0	0	0			
Financial indicators (£'000)	Total disposal cost	£270	£291	£389	£309		
	Hazardous waste – disposal cost	£204	£223	£329	£244		

#### Targets and narrative

We are currently recycling or reusing 91 per cent of our waste arisings – significantly exceeding our, MOD's and wider Government's targets. Future increases will be challenging given the already high level of recycling/reuse, although we will continue to deliver further improvements wherever possible.

#### Commentary on direct impacts

Our main direct impacts of waste relate to business outputs and, in recent years, to construction and site development activities. We also produce quantities of hazardous waste that are either incinerated on site in accordance with Environment Agency approved standards, or disposed of via approved external suppliers. Our incineration of solid and wet hazardous waste has decreased this year due to Hazardous Waste Awareness Training and the appointment of Waste Supervisors.

#### Overview of indirect impacts

We continue to work with our strategic partner, Serco, to ensure that an efficient and effective waste disposal process is operated across our sites, based on sorting at destination rather than at source. Staff are encouraged to minimise waste wherever possible.

Finite Resource Consumption – Water			2009/10	2010/11	2011/12	2012/13	Graphical Analysis
Non-financial indicators	Water consumption (m3)	Supplied	191,543	189,260	210,902	191,291	
		Abstracted	225,540	215,644	204,314	215,167	
Financial indicators (£'000)	Water supply costs	£755	£856	£901	£1,089		

#### Targets and narrative

Water and sewerage services are delivered via the wider MOD Project Aquatrine contract for two of our three core sites. This contract has a number of targets to reduce leaks and improve infrastructure and the achievement of these are not under our direct control.

#### Commentary on direct impacts

Our major impact in terms of water consumption is the reliance on local abstraction at one of our sites, which is controlled by Environment Agency licences. Water consumption is closely monitored to ensure that current and future requirements are sustained.

#### Overview of indirect impacts

We continue to work with our partners to ensure that water is used efficiently and effectively as part of ongoing operations.

Finite Resource Consumption – Energy			2009/10	2010/11	2011/12	2012/13	Graphical Analysis
Non-financial indicators	Energy consumption (KWH)	Electricity – non-renewable	49,166,919	50,035,679	48,514,372	51,451,762	
		Electricity – renewable	0	0	2,925	4,145	
		Gas	51,045,180	57,958,275	46,090,211	46,849,534	
		LPG	0	0	14,388	8,764	
		Oil	24,929,426	26,578,647	28,251,840	23,550,447	
Financial indicators (£'000)	Total energy expenditure	£5,212	£6,391	£7,144	£7,124		

Finite Resource Consumption – Paper			2009/10	2010/11	2011/12	2012/13	Graphical Analysis
Non-financial indicators	Volume (t) (Notes 3 and 6)	Total	49.07	50.31	43.96	43.72	
Financial indicators (£'000)	Total paper expenditure		£66	£61	£57	£56	

#### Targets and narrative

We are working toward the Greening Government target regarding paper use reduction. Over the past five years, we have reduced paper use by more than 21 per cent, although it must be recognised that much of our output is demand-led by our customers, so it may not always be possible to maintain current consumption, or reduce usage further.

#### Commentary on direct impacts

We purchase our paper via the Government Procurement Service contract arrangements and have centralised our internal process for ordering and controlling the use of paper. This has had a positive effect on stock levels and enables pockets of high usage to be quickly identified.

#### Overview of indirect impacts

New technology and the steady move to a paperless office environment are indirectly influencing our reduction in paper usage. We operate a comprehensive Electronic Records System and make extensive use of Microsoft SharePoint in support of service delivery and back office functions.

#### Notes:

- The above report has been prepared in accordance with guidance laid down by HM Treasury in 'Public Sector Sustainability Reporting' published at [www.financial-reporting.gov.uk](http://www.financial-reporting.gov.uk)
- Emissions accounting includes all Scope 1 and 2 emissions along with separately identified emissions related to official travel. Defra conversion rates have been used to account for carbon.
- Paper usage and expenditure data relates to supplies procured by us via Government contracts. Additional paper is also used by our Strategic Facilities Management partners but this has not been included as the volumetric data is not available.
- Oil for the current reporting year has been split between heavy and light types – previous years have been reported as a single average of both. Fugitive gas increase in 2012/13 is due to changes in operating procedures and improved data reporting.
- We dispose all of our IT Equipment via the MOD Defence Disposals Agency and therefore, to prevent double counting, this information is excluded from this report.
- Where new, more accurate information on prior years has become available, the reported data has been amended.





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