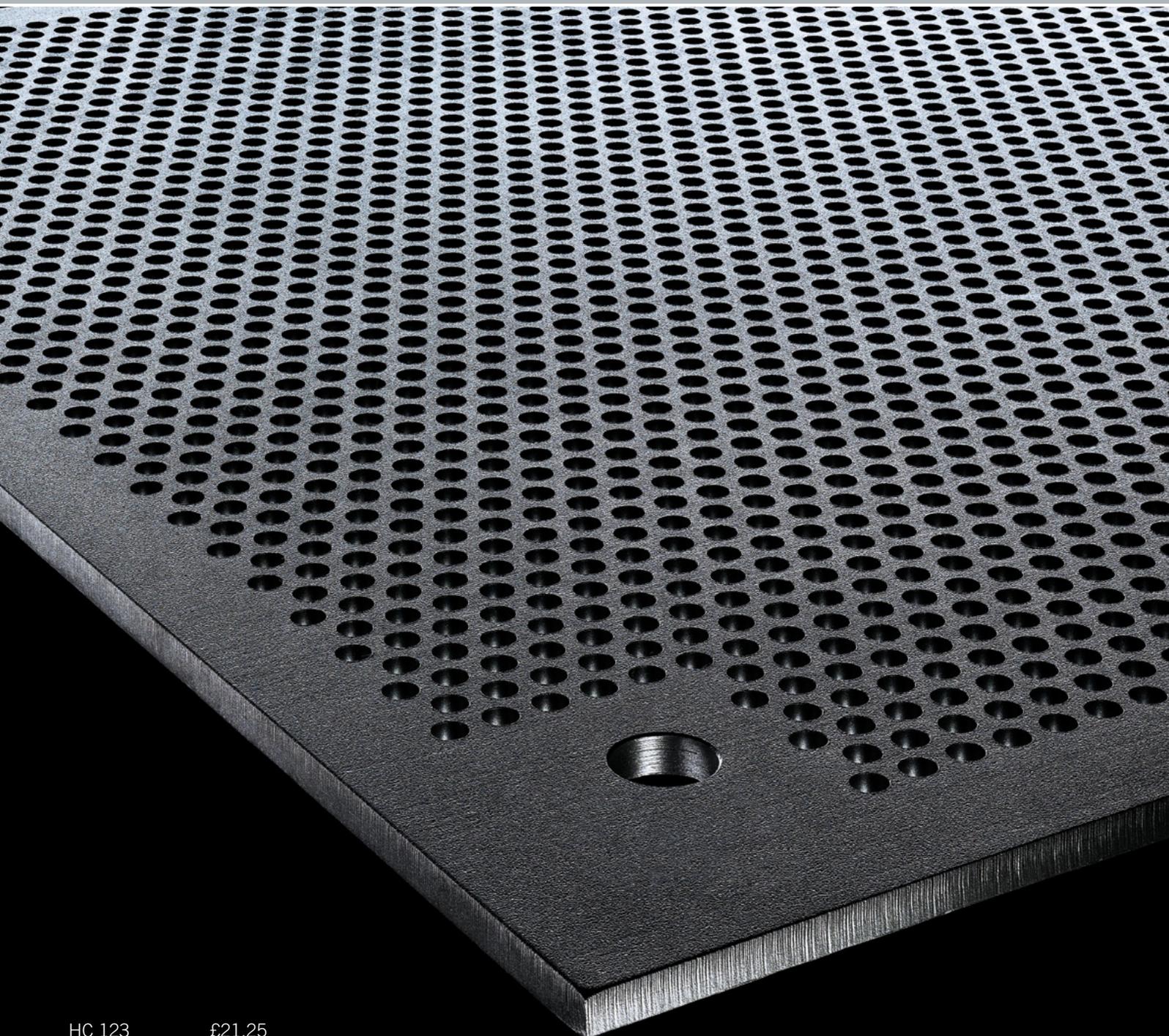


Dstl Annual Report and Accounts 2011/12



Defence Science and Technology Laboratory
Annual Report and Accounts 2011/12

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Front cover: Super Bainite armour steel © Tata Steel.

About Dstl

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

Dstl (the Defence Science and Technology Laboratory) is focused on providing professional in-house expertise to lead the defence and security S&T community to develop and employ the capabilities that are needed to deliver the National Security Strategy and the Strategic Defence and Security Review. In the Dstl context, S&T covers all aspects of S&T and its applications, including social science, mathematics and engineering.

As MOD's in-house S&T organisation, we work with industry, academia and our international partners to deploy and deliver advances in military capability, support Government decision-making and insure against current and future threats and risks. We also work with wider Government exploiting our expertise and knowledge to improve the safety and security of UK citizens, and with international partners to support wider diplomatic aims.

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

As a Trading Fund of MOD, our activities are funded entirely by customer contracts. We own and manage our estate and IT infrastructure, and our own pay and career structures are designed to motivate and develop our workforce.

Our role comprises six elements:

- **Supplying sensitive and specialist S&T services for MOD and wider Government**
- **Providing and facilitating expert advice, analysis and assurance to aid decision-making and to support MOD and wider Government to be an intelligent customer**
- **Leading the formulation, design and delivery of a coherent and integrated MOD S&T programme using industrial, academic and Government resources**
- **Managing and exploiting knowledge across the wider defence and security community, and understanding S&T risks and opportunities through horizon scanning**
- **Acting as a trusted interface between MOD, wider Government, the private sector, academia and allies to support military co-operation, capability delivery, diplomacy and economic policy**
- **Championing and developing S&T skills across MOD, including managing the careers of MOD scientists.**

We currently operate from four main sites in southern England: Porton Down, in Wiltshire, Portsmouth West and Alverstoke, in Hampshire, and Fort Halstead, in Kent. We also have staff at Harwell, in Oxfordshire, and a significant presence on other MOD sites, including Abbey Wood, in Bristol, the Permanent Joint Headquarters, in Middlesex, and MOD Headquarters, in London, and within the Front Line Commands.

Chairman's statement



This has been a demanding year for Dstl, reflecting the breadth and importance of our contribution to the country's defence and security.

The immediate priority has been to continue to support our Armed Forces in Afghanistan, drawing on the work of embedded advisers and other staff throughout Dstl. I know this contribution has been much appreciated by operational commanders and others in MOD.

S&T is important not only for current operations but across the work of Government including through supporting policy decisions of Ministers and their most senior advisers, on which Dstl has been playing an increasing role.

The Government's recent White Paper, National Security Through Technology, emphasises the importance of S&T, and Dstl is proud to have the responsibility for leading the implementation of MOD's S&T strategy, working with industry and academia. This year has seen further progress in developing this wider role on a collaborative basis.

The report highlights a number of examples of Dstl's work in support of planning for future capabilities. Looking ahead, this will remain crucially important while reflecting other White Paper themes on the importance of cost reduction and more future-proof systems, and more focus on the human and sociological aspects of capability. These represent important challenges but a good start has already been made, for example, in building a cadre of staff with social science backgrounds.

The Government and the top leadership of the civil service are understandably focused on how civil service organisations can achieve improvements in value for money, including through better governance. I believe Dstl has a very good story to tell here. Our work is highly rated by customers and costs continue to be tightly controlled. Staff charge-out rates have been frozen for three years in succession. Operating profit for 2011/12 is £31 million, which will help to ensure that key investments can be self-funded. The Trading Fund model and other aspects of Dstl's governance continue, I believe, to serve our customers well. Above all, our success depends on our staff, and the Board was pleased to see many examples of staff excellence and commitment.

This was an important year for how defence is organised. We were heartened that our role was clearly recognised in the future defence operating model and we are keen to work closely with the new organisations being created under Defence Transformation.

Finally, there have been significant changes in the composition of the Board. Two of our longest-serving Non-Executive Directors – Lord May and Chris Swinson – stepped down at the end of their second terms of office in accordance with our governance rules, and I want to thank them both for their excellent contributions to the Board's work. Deputy Chief Executive Peter Starkey and Interim Infrastructure Director Jill Cook retired, having been instrumental in Dstl's progress. Above all, Frances Saunders, our Chief Executive for nearly six years, stepped down in March. She made an immense contribution to Dstl's success and reputation and will be much missed. I am delighted that Jonathan Lyle has succeeded her.

Sir Richard Mottram
Chairman
31 May 2012

Chief Executive's statement

2011/12, in which Dstl reached its tenth anniversary, was another very busy and successful year. It was a year in which we continued to evolve and adapt to new challenges and opportunities as MOD's in-house S&T organisation.

The Government's recent White Paper, National Security Through Technology, emphasised the crucial importance of S&T to UK defence and security. The role of S&T as a key enabler for defence capability was also recognised by the Levene Report on the future organisation of MOD. The Defence Transformation programme has created a clear vision for UK Defence in the 21st century and Dstl has been playing, and will continue to play, a vital part in how defence capability will be delivered in the future. This year, we have played a central role in influencing the development of UK S&T capabilities to support the Government's defence and security agenda and to help Departments to be intelligent customers for a range of capabilities and services.

Our strong heritage in the internal delivery of S&T projects, services and advice, is the foundation from which we now lead and co-ordinate a broad portfolio of work that delivers impact through collaborative working across the broader S&T community. Indeed, we place great importance on our horizon-scanning activities and the need to achieve a balanced programme that addresses long- and near-term demands, while being cost-conscious. We have continually reduced our cost-base over the first decade of our operation, and this continued strong financial and business performance means that we were able to freeze our charge-out rates for a third successive year.

Dstl has continued to receive high levels of customer satisfaction with project and product delivery. Customers report positively on the effectiveness of our employees, who they view as being good, excellent and in some cases world-class. Deployed or embedded staff are viewed to have added significant value and we expect to work increasingly in this way in support of the new MOD operating model.



This year, Dstl saw the completion of the first full cycle of the MOD Chief Scientific Adviser's (CSA's) S&T programme and the delivery of critical advice and support in preparation for the London 2012 Olympics. We have continued to have significant impact through support to operations in Afghanistan, Libya and elsewhere.

External engagement is key to the delivery of our role and we have continued to work at establishing ourselves as a recognised and leading exponent of collaborative working. We seek to do that on the basis of mutual trust and transparency with industry and the recent publication of updated criteria for our procurement of S&T represent a key step in further building that trust. We have developed strategic relationships with external partners, including the UK Space Agency, Atomic Weapons Establishment and QinetiQ. And we are making enhancements to Dstl's Centre for Defence Enterprise to build on its substantial early success in accessing innovation and fresh ideas from entrepreneurs and Small- and Medium-sized Enterprises (SMEs) to benefit defence and security.

As part of our engagement with academia, we have launched a national PhD scheme and a UK-French PhD scheme to harness excellence in universities for the benefit of defence and security research. Alongside this, for 2011/12 Dstl returned to the Top 100 Graduate Employers list, published by The Times newspaper.

As Chief Executive, it is a privilege for me to lead an organisation that plays such a vital role in the nation's defence and security. I pay tribute to my predecessor, Frances Saunders, for her distinguished leadership of Dstl over the past six years. She exemplified the commitment and the talent that exists across our workforce. Whether it is in the laboratory, in our front-line support to customers, in working with our partners and suppliers or in our support functions, it is the professional contribution of our people that enables Dstl to realise its purpose of 'maximising the impact of science and technology for the defence and security of the UK'. My thanks go to them all.

Jonathan Lyle
Chief Executive
31 May 2012

Business summary

In line with other areas of Government, we have developed our own Key Performance Indicators (KPIs), which have been agreed with our Board. A summary of our non-financial KPIs is provided below. A more detailed overview of our performance for each area, including finance, is provided in other sections of this report. Overall, we have demonstrated strong business performance over the financial year.

Delivery

We have continued to deliver projects to time, to cost and to the satisfaction of the customer. Through effective programme management, we have met our target for the percentage of the MOD CSA's S&T programme delivered externally.

	Performance	Threshold
Overall customer satisfaction with product delivery	94%	> 93%
% projects completed to time	96%	> 85%
% projects completed to cost	90%	> 85%
% MOD CSA's S&T programme delivered externally	60%	≥ 60%

People

We continue to have high staff engagement levels and a low staff turnover rate. Total headcount was broadly in line with budget, and the percentage of non-permanent staff has been increased to provide more flexibility against changes in income. Percentage of hours lost to sickness absence was well below the public sector average but sickness absence continues to be closely monitored.

	Performance	Threshold
Employee Engagement Index 2011	63%	≥ 62%*
Permanent staff turnover	5.2%	< 7%
% non-permanent staff	14%	> 12%
Total workforce headcount	4,001 [†]	≥ 3,955
% hours lost to sickness absence	2%	<3%

*Civil Service Upper Quartile

[†] End-of-year figure includes non-payroll staff (inward secondees and contractors).



Sustainability

We have played an active part in the Greening Government Agenda by seeking to reduce energy consumption and emissions. The size of our headquarters site at Porton Down has contributed to higher carbon emissions, and a programme of work is under way to review our future estate to enable us to improve our performance against sustainability targets, (see Dstl Sustainability Report on page 76).

	Performance	Threshold
Building footprint carbon emissions (kg/m ²)	147	<140

Financial review

Dstl has achieved a good set of results this year, with sales up 6 per cent to £596 million. Operating profit was £31 million (2010/11: £45 million), a reduction of £14 million. This follows a 13 per cent increase in work placed with external suppliers, freezing our prices for a third year and maintaining the tight cost control regime established in 2010/11.

Sales

Sales for the year were £596 million (2010/11: £564 million), an increase of 6 per cent, with sales to MOD accounting for 93 per cent of the total (2010/11: 91 per cent). The full breakdown is set out in the table below:

£ million	2011/12	2010/11
MOD:		
Research	405	359
Non-research	148	154
	553	513
Non MOD:		
OGDs	26	28
Non-Exchequer	11	13
Estates	5	7
Intellectual Property	1	2
Total	596	564

Performance has been dominated by the Research Programme; sales grew £46 million to £405 million and accounted for 68 per cent of total sales (2010/11: 64 per cent). This includes an increase of £22 million in the value of work let directly to industry through the External Programme to £138 million, and an increase of £6 million in proof-of-concept funding allocated through Dstl's Centre for Defence Enterprise, primarily to Small- to Medium-sized Enterprises (SMEs), to £11 million.

In contrast, MOD Non-Research sales reduced £6 million to £148 million (2010/11: £154 million) due to reduced sales to Defence Equipment & Support (DE&S), reflecting MOD's 'comprehensive commitment control regime' introduced at the start of the

financial year, which led to both delayed and cancelled orders.

Non-MOD sales reduced £7 million to £43 million (2010/11: £50 million) due to a combination of budget constraints in other Government departments and reduced rental income at our Fort Halstead site.

Cost of sales

Cost of sales increased by £32 million to £271 million (2010/11: £239 million), an increase of 14 per cent, which results from our drive to deliver more work externally, consistent with Government policy set out in the recent White Paper: National Security Through Technology. This enables us to maximise the breadth of S&T available to meet UK defence and security needs, sustain critical UK industrial capability, and equip Dstl with increased flexibility to meet changing levels of future demand.

Operating expenses

Operating expenses increased by £14 million to £294 million (2010/11: £280 million). Although average headcount was broadly unchanged,

£ million	2011/12	2010/11
Staff costs	190	187
Non-staff costs	95	90
Depreciation and amortisation	14	13
Other operating income	(5)	(10)
Total	294	280

staff costs increased by £3 million to £190 million and accounted for 65 per cent of total operating expenses (2010/11: 67 per cent). This results from a combination of a 1 per cent rise in employer's National Insurance rates and the changing balance in our workforce towards greater use of non-permanent staff, accounting for 14 per cent of total headcount at the year end (2010/11: 8 per cent), helping to increase our flexibility in meeting future challenges. Non-staff costs increased by £5 million to £95 million. This results from costs associated with Helios, our project to relocate from Fort Halstead, and transition costs associated with moving to a new provider of Information Services (IS) services. The tighter cost control regime introduced during 2010/11 was maintained throughout 2011/12. Other operating income is offset against operating expenses and reduced to £5 million. This principally comprises income from seconding Dstl staff across Government and overseas. The reduction is due to one-off Government grant receipts in 2010/11 to fund trials facilities on our range at Porton Down.

Operating profit

Operating profit reduced £14 million to £31 million (2010/11: £45 million). The increase in sales of £32 million was matched by a similar increase in cost of sales, with no net impact on profit. Operating costs increased by £14 million as described above.



Dstl Finance Director Mark Alexander



Capital investment

Capital investment was £10 million (2010/11: £11 million). Significant investments included the completion of a £10 million programme to refurbish the effluent treatment plant for our bio-containment facilities, the purchase of new nuclear magnetic resonance (NMR) spectroscopy equipment (£1.4 million), further development of our Home Made Explosives trials facility (£1.6 million), and the commencement of work to upgrade high classification network and communications infrastructure (£0.9 million of a total £3.7 million programme).

Funding and treasury management

Dstl has been funded by a £32 million loan from MOD, 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 £25.8 million. Dstl ended the year with cash of £80 million (2010/11: £72 million). The increase in cash reflects the strong trading performance and will enable Dstl to fund our ongoing investment programme from internally generated cash.

Supplier payments

During the year, Dstl paid 92 per cent of approved invoices within five days (2010/11: 81 per cent) against the target set by Government of 80 per cent.

Dividends

A dividend of £8.5 million will be paid in respect of 2011/12 (2010/11: £8.5 million), based on Dstl's 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 (FReM), issued by HM Treasury. There have been no new accounting standards and only one significant change to FReM. This requires Government grants to be recognised in full in the profit and loss account on receipt. This has had no impact in 2011/12 but has increased profit in 2010/11 by £4 million.

Outlook

Government policy set out in the White Paper is to sustain S&T research investment at a minimum of 1.2 per cent of the Defence Budget over the Comprehensive Spending Review period. This compares to an estimated level of 1.25 per cent in 2011/12. Although this provides some reassurance, more work will continue to be sourced externally and economic conditions remain uncertain. Dstl has taken steps to minimise this uncertainty by migrating to a more flexible workforce, rationalising our estate and continuing with the cost control regime established in 2010/11. Priority will be given to investments that improve efficiency and reduce our cost base to ensure Dstl is in a strong position to face the challenges and opportunities that lie ahead.

Customers and markets

From the military commander in the field through to policy makers within Government, Dstl works with a wide 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 to maximise the impact of S&T for the defence and security of the UK.

The role of S&T as a key enabler for defence capability was recognised this year by the Levene Report, as was our role in the delivery of S&T across defence and security within MOD's new operating model. This year also saw the completion of the first full cycle of the MOD CSA's S&T programme, which we manage on behalf of the Defence Research and Development (R&D) Board, chaired by the Minister for Defence Equipment, Support & Technology.

The MOD CSA's S&T programme is designed to deliver six critical outcomes for Defence, as laid out in the recent Government White Paper, National Security Through Technology:

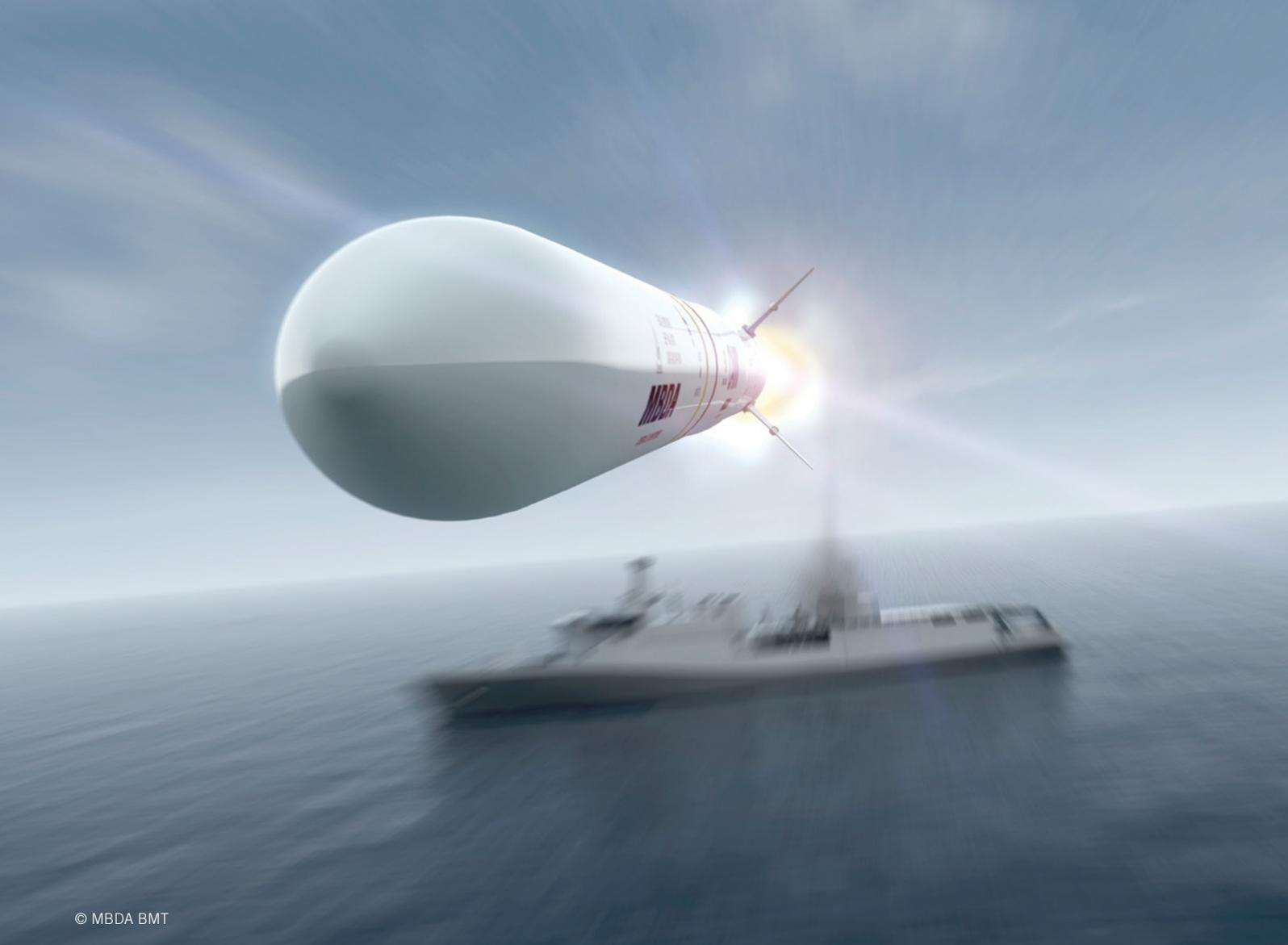
- Support to current defence and security operations
- Plan for future capabilities that will be needed in the longer term
- Cost reduction and future proof systems
- Support to critical science and technology capabilities/facilities
- Provide timely and effective advice to Ministers and Government
-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

Income from the MOD CSA's S&T programme over the year

was £377 million; delivered using internal and external resources. The non-research element of Dstl's income was £148 million.

At the heart of our programme of work is our support to current and contingent operations, whether that be through deployed analysts giving front-line advice in Afghanistan, or support to Urgent Operational Requirements, where the rapid pull-through of S&T is required to meet critical in-theatre needs. Longer-term S&T investment also enables the deployment of key equipment, such as the Dual-Mode Brimstone, which proved very effective in operations in Libya because of the precision-guided capability achieved at a fraction of the cost of developing a brand new weapon system.

In addition to operations, we recognise that the priority for S&T must be to underpin the effort to balance MOD's budget and to help establish a sustainable equipment programme. Key to these priorities is effective support to Defence Equipment and Support (DE&S) and driving up the profile of evidence-based decision-making, analytical thinking and analysis across defence. Our income from DE&S was £85 million (2010/11: £95 million) showing the importance placed on S&T ▶



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Leading the formulation, design and delivery of a coherent and integrated MOD S&T programme

Battle-winning technology

Dstl continues to be at the forefront of future developments, working closely with industry, through the Weapons Technology Centre (WTC) and the Material and Components for Missiles Innovation and Technology Partnership (MCM ITP), to develop the next generation of complex weapons that will provide UK Forces with decisive operational advantage over adversaries.

We played a pivotal role in developing, leading and directing the research programmes that were instrumental in the development of a new Royal Navy missile defence system that will be able to intercept and destroy enemy missiles.

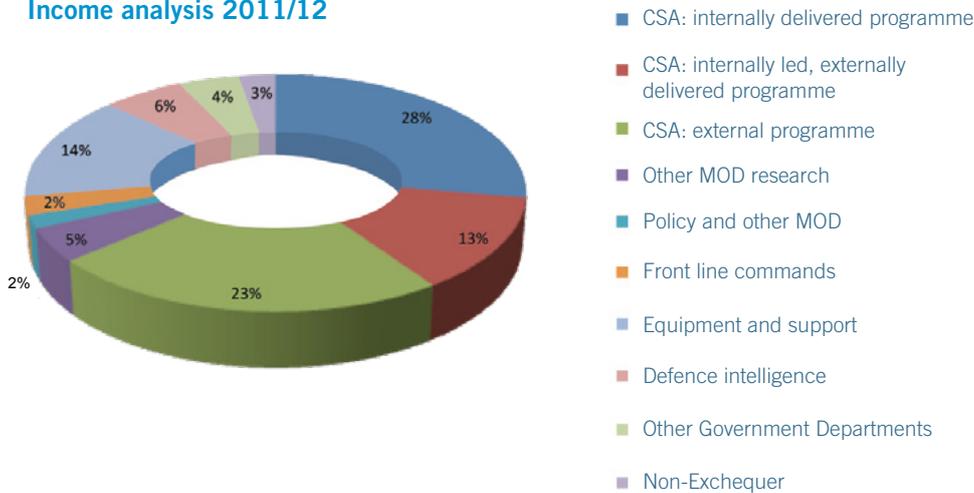
The Sea Ceptor system uses a new UK-developed missile capable of reaching supersonic speeds of up to Mach 3 and with the ability to deal with multiple targets at the same time, protecting an area of around 500 square miles (1,300 square kilometres) over land or sea.

Proving MOD's commitment to providing battle-winning technology for our Armed Forces, Sea Ceptor will be developed under a demonstration contract with European defence company MBDA (UK) that is expected to last for five years.

Key system technologies, such as: the ground-breaking high-performance, low-cost seeker; the advanced proximity fuze; the weapon's novel open architecture, and; the innovative soft vertical launch system, were all developed and matured within the MOD CSA's S&T programme.

The exploitation of technology into the Sea Ceptor programme shows the benefits of the close working relationship between MOD and UK industry.

Income analysis 2011/12



Note: The MOD CSA's S&T programme, managed by the DST (Defence Science and Technology) Programme Office at Dstl, includes an additional £38 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.

advice and analysis in acquisition and support, in areas as diverse as informing cost-effective logistics, and the latest air crew protection. We also continue to work closely with the DE&S Programme and Technologies Group to de-risk new technologies.

These activities are enabled by the network of Science Gateways and other staff embedded across MOD, including in DE&S and in the Front Line Commands (FLCs). The Gateways' role is to help solve customers' problems through accessing S&T and by ensuring our customers' requirements are reflected in the MOD CSA's S&T programme and in continued exploitation of S&T in defence acquisition and support. This includes supporting the continued transformation of defence, in particular, the Materiel Strategy and the more prominent role of the FLCs.

This year, we have played a central role in influencing the development of UK S&T capabilities to support the Government's defence and security agenda and to help the Government to be an intelligent customer. We continue to

maintain critical S&T capabilities internally and externally, and strive to achieve best value for money by drawing on the UK's wider S&T supply base.

Defence and security research continues to deliver in priority areas for Government, including cyber and influence, and counterterrorism in support of the National Security Strategy. Our support to Defence Intelligence (DI) has also continued to achieve notable success, and income from this area was £37 million (2010/11: £26 million). The detailed scientific analysis that we deliver to DI is a key enabler in reducing the threat posed by Improvised Explosive Devices (IEDs) in Afghanistan.

A total of 93 per cent of our programme is carried out on behalf of MOD. However, we also work with wider Government to help meet their security objectives, with an emphasis on counterterrorism, transport and aviation security. Working closely with the Home Office, we are delivering critical advice and support to preparations for the London 2012 Olympics.

Shaping operations

Support to current operations is a crucial part of Dstl's role and operational commanders in theatre rely on our embedded scientific expertise. Dstl Scientific Advisers (SCIADs) provide operational commanders and their staff with timely, expert advice, working across a broad range of S&T issues relevant to defence.

By deploying to theatre, SCIADs gain vital situational awareness, and are able to provide a more appropriate response within the timescales necessary to support operational decisions.

SCIADs are the link between operational commanders in theatre and the S&T community within the UK. Dstl operates a 'reachback' system where Dstl SCIADs can refer questions back to the relevant Subject Matter Experts in Dstl and wider MOD. In this way, the best S&T expertise can evaluate and resolve S&T issues, and the SCIAD will brief the commander and staff on Dstl's analysis, advice or solution. If the question requires expertise from beyond MOD, industry or academia can also be called upon to help.

Last year, Dstl experts helped deployed SCIADs with more than 180 requests for reachback advice. SCIADs also supported

numerous Dstl projects, making use of their position with military personnel in theatre.

Also during 2011, Dstl's Stabilisation study deployed two teams of volunteer analysts to Afghanistan to directly support military planners in shaping future NATO operations.

This support utilised Dstl's world-leading war game capability, the Peace Support Operations Model (PSOM). PSOM is a decision-support tool for examining operations and outcomes in complex environments such as Afghanistan.

The Dstl analysts used PSOM to support two planning conferences in Kabul at the request of the International Security Assistance Force (ISAF) Joint Command. The conferences, held in March and November 2011, brought together more than 100 key personnel from across Afghanistan, including NATO and Afghan military commanders, as well as senior civilian decision-makers.

The use of PSOM provided the military and civilian planners clear direction with which to plan future operations. The outputs from both conferences continue to influence and shape operations in Afghanistan.



Operations review

Dstl provides specialist S&T services in core capability areas and also works in collaboration with the wider S&T supply base on a variety of activities.

Our work spans a very wide range of defence and security issues. Highlights this year have included significant high-impact support to current operations; input into decisions within Defence Reform; successful outcomes from our collaborative activities with industry and academia, and; scientific advances to underpin future capability.

A small selection of examples of our high-impact work throughout 2011/12 is set out in this section.

Support to current defence and security operations

- Provided extensive support to operations in Libya. For example, in applying cutting-edge image processing and analysis techniques. Dstl scientists assisted the planning for civilian extractions at the start of the crisis, supporting military operations during the conflict, and providing assistance to humanitarian efforts in the post-conflict aftermath.
- Supported the development and testing of a radar system, in conjunction with industry, for the detection of rockets to provide enhanced early warning to forward operating bases.
- Deployed a team of analysts to Kabul to support the International Security Assistance Force (ISAF) Joint Command Conferences to provide key insights to inform the long-term strategic plan within Afghanistan (see Case Study on page 15).
- Designed and tested a rapidly deployable forensic laboratory that could be operated by military staff in difficult conditions.
- Supported the down-selection, assessment and fielding of enhanced pelvic protection that will reduce serious injuries on the front line.
- Supported a number of high-profile explosives-related cases both within the UK and abroad including deploying a Senior Case Officer to Kenya in December to assist in the investigation of an explosives case at the request of the UK Counter-Terrorist Command police and carried out in conjunction with Kenyan police.

- Created and successfully deployed a Network-enabled Multi-role Geospatial Decision Support Tool. The tool is capable of supporting the operational cycle from asset tasking to data visualisation, in command and analyst cells, and was used to support a 24/7 counterterrorism operation.

Plan for future capabilities that will be needed in the longer term

- Supported the establishment of the UAS (Unmanned Air Systems) Defence Capability Development Centre to bring together relevant MOD agencies to create a joint approach on all UAS matters, thereby enabling rapid and coherent development from concept to employment to enable the exploitation of ideas generated by UK industry.
- Collaborated with the US Navy to develop, test and trial an innovative combat swimmer-mask display and navigation system, which has won the US Federal Laboratory award for excellence in Technology Transfer.
- Demonstrated the first use in Europe of bio-imaging in high containment. This cutting-edge facility enables Dstl to conduct more advanced studies to understand the pathogenesis of disease, which will help the development of new medical countermeasures and therapies against biological warfare agents.
- Developed a system that applies through-barrier detection to analyse materials that are concealed within containers.

Cost reduction and future-proof systems

- Informed and successfully supported key decisions within MOD's 2012 financial planning round. This included providing analytical insight that ultimately led to the establishment of a multi-million pound programme of funding for cyber activities.
- Dstl has developed the DIET (Defence Impact of Emerging Technologies) programme, which has formulated a very ►



Above:
The Information Superiority Experimentation Capability (ISEC) at Dstl. This is a Government-owned and operated facility providing users from Government, the Armed Forces, industry and academia a secure and commercially neutral space for information experimentation and research. ISEC features ten reconfigurable laboratories, connectivity to secure national and international networks for distributed activities, and has access to Subject Matter Experts drawn from Dstl and wider UK MOD and industry.



effective method to identify, assess and exploit emerging technologies that will enable MOD to continue operating successfully in a complex, technology driven future.

- Led the Air Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) Programme Investigation to generate and assess cost-effective Courses Of Action. The Programme Investigation identified potential future Air ISTAR constellations, with cost-saving options, to meet future ISTAR requirements.
- Dstl's quick-win innovation has enabled data captured during submarine sonar certification trials to be replayed onboard. With this innovation in the field, problems with a sonar are quickly identified and fixed before trial completion. This approach has helped assure the success of sea trials and avoid the rerunning of trials that are expensive in terms of cost and platform time.

Support to critical S&T capabilities/facilities

- Supported DE&S and industry in the provision of the first fieldable issue of Aircrew Protective Equipment and Detection (APED); a revolutionary new design of combined helmet and respirator for rotary wing crew.
- Created a new Crime Science capability to support the wider crime science activities across Dstl and to act as a focus for increasing analytical support to the wider security domain.
- Delivered a project supporting the chemical weapons destruction facility at Schuch'ye in the former Soviet Union.
- Initiated the development of a 'human signatures' technical capability that will improve the ability to identify persons.

Provide timely and effective advice to Ministers and Government

- Supported the United Nations Panel of experts on Iran pursuant to Security Council Resolution 1984 (2011) in

respect of rockets located in Nimruz Province, in southern Afghanistan.

- Provided direct analytical support to the MOD Permanent Under Secretary (PUS) and the Defence Board as part of the Evidence-Based Decision-Making initiative within Defence Reform.
- Deployed emergency response specialists in support of a UK major nuclear weapon emergency assessed exercise based in Ayrshire, Edinburgh and London.
- Provided radiation protection advice, reachback support and radiation monitoring equipment to support the deployment of MOD, military and Dstl personnel to the British Embassy in Tokyo in the aftermath of the Fukushima nuclear reactor disaster.
- Developed a revolutionary new procedure for recovering fingerprints from very challenging surfaces, which is about to be incorporated within Home Office guidelines for police procedure and which has the potential to generate commercial income for Dstl.

Particular focus on the human and sociological aspects of capability

- Ran a major experiment to de-risk technologies and trial a systems approach to identify the contextual indicators associated with a terrorist facility.
- Used specially designed standalone anthropomorphic heads with built-in sensors and recorders to undertake measurements during military exercises to improve our understanding of the effects of explosive events on hearing.
- A human factors assessment framework enables us to rapidly assess the performance and protection offered by systems to soldiers, under realistic conditions, and hence quickly identify effective areas and areas for improvements.

Systems approach to threat detection

Working with UK industry, Dstl has brought together the country's leading scientists and engineers to develop future Defensive Aid Systems (DAS), to help better equip UK aircraft in hostile environments. DAS consists of sensors, which detect and identify the threat, and effectors, which deploy appropriate countermeasures such as flares or chaff, to defeat that threat.

The Common DAS Technology Demonstrator Programme (CDAS TDP), intended to demonstrate practically that a concept works, is a collaborative venture between MOD and an industry team led by SELEX Galileo, comprising Thales, QinetiQ and BAES.

CDAS will apply a new systems approach, based on 'open architectures' (components that can freely communicate regardless of manufacturer), allowing easier and more flexible equipment integration. This approach has evolved from the battle-proven Helicopter Integrated DAS (HIDAS) currently fielded on UK Apaches, for which Dstl scientists and engineers had already played a major role to bring into service. Dstl recognised this as an effective model to help define the DAS upgrades required for future air platforms.

Operationally, this collaborative approach with industry has allowed Dstl to quickly find the best equipment solutions to improve protection to other aircraft and personnel in current operations. The Chinook DAS upgrade is a great example of this, and is in Afghanistan right now helping to save lives.

Partnering for development

Dstl has worked closely with Defence Equipment and Support (DE&S), QinetiQ and Crew Systems Corporation, to develop a new range CBRN (Chemical, Biological, Radiological and Nuclear) protection equipment for aircrew that will enter service in spring 2012.

The equipment, comprising respirator, helmet, suit and gloves replaces the obsolete AR5 that was designed during the Cold War, and provides high levels of protection with a substantially reduced physiological burden. Technologies developed by Dstl in the MOD CSA's S&T programme have been pulled through and integrated onto existing air platforms, meeting very high performance and test standards.



Many of the project risks were addressed during a successful Technology Demonstrator Programme, providing user confidence and enabling the MOD equipment project to be delivered on time and to budget.

Dstl has been a key partner throughout the project, transferring technologies to industrial partners, conducting test and evaluation and seconding technical experts into DE&S to support the project throughout its life.



Technology transfer

Dstl's technology transfer company, Ploughshare Innovations Limited, was established in 2005 to obtain value for money from MOD S&T research funding by exploiting defence technology in the civilian field. Increasingly, technology transfer is also helping to secure defence-related technological capabilities within the UK.

Since 2005, Ploughshare has licensed more than 75 new technologies to industry and launched five new spin-out companies, primarily in civilian applications. In addition to this, Ploughshare, supported by Dstl's Intellectual Property Group, has negotiated licences in the defence field resulting in research being pulled through into capabilities and off-the-shelf products to meet MOD's responsibility to the taxpayer.

One such deal, completed this year with TATA Steel (see Case Study opposite) has resulted in a new armour steel, Super Bainite Steel, being manufactured within the UK.

Other deals have provided new armour capabilities, such as CAMAC®, a novel ceramic protection system utilising thimble-sized, resin-mounted, hexagonal ceramic segments packaged in a composite that provides high-ballistic performance. CAMAC was patented by Dstl and exploited through a licence from Ploughshare by Coventry-based NP Aerospace.

The development of CAMAC was made possible by combining Dstl's specialist scientific expertise with NP Aerospace's expert engineering knowledge and is an example of MOD and industry working together to fast track innovation from the laboratory to the battlefield.

These collaborations have secured substantial private investment from industry and ensured valuable Dstl research is pulled through into front-line capabilities while also obtaining financial returns for the UK as a result of future commercial exploitation by industry.

Looking forward, Dstl continues to develop new technologies that can be protected and exploited. This year, Dstl secured the grant of 82 new patents, and through the Dstl-Ploughshare Rewards to Inventors scheme paid £78,028 to 14 individuals in recognition of their inventions and contribution to their exploitation.



Leading the formulation, design and delivery of a coherent and integrated MOD S&T programme

Protecting success

The UK now has its own on-shore supply of high-performance armour steel, thanks to a Dstl invention and a new manufacturing agreement. Known as Super Bainite Steel, this affordable new armour steel has outstanding ballistics properties, which are only matched by two conventional, more expensive, foreign armour steels.

Ploughshare Innovations, Dstl's technology transfer partner, has signed a licensing agreement with Tata Steel to manufacture the steel in the UK and exploit it globally. Under the agreement, the steel will be turned into seven different forms, including perforated armour plates that could be used on future front-line armoured vehicles.

Super Bainite Steel was originally conceived as an alternative, more affordable high-performance armour steel, and was developed in response to the 2007 Defence Technology Strategy, which highlighted the need for a UK supplier of specialist armour steels.

The origins of Super Bainite Steel go back to a collaborative development project between Dstl and Cambridge University, where the composition of the steel was derived from first principles using thermodynamic computer modelling techniques. This research programme was expanded to involve Tata Steel, which produced samples of the steel at its Swinden Technology Centre, Rotherham, that were ballistically tested by Dstl. The ultimate production scale-up programme was funded by Tata, using their own private venture funding.

The Super Bainite Steel development programme successfully moved the technology from a concept level to a Technology Readiness Level of 6. Tata Steel is now producing Super Bainite Steel and offering it into the armoured vehicle market, with some success.

External engagement

Dstl recognises the importance of effective and value-adding engagement with industry, academia, other laboratories and investors in potential defence- and security-relevant S&T, at home and abroad.

Dstl's external engagement strategy, aimed at broadening awareness of our role and establishing us as a recognised and leading exponent of collaborative working, has continued apace this year.

On the international stage, we made real progress towards the realisation of key Government White Paper, National Security Through Technology, aspirations. The White Paper emphasised the importance of bilateral strategic partnerships with other nations, in particular, the long-standing relationship with the United States, and with France, and in the developing relationship with India.

We played a leading role in working with UK Trade and Industry, the Indian High Commission in London, the Defence Research and Development Organisation India and others to enable the signing of the Letter of Arrangement on UK-India Defence and Security Research and Technology Collaboration in September 2011.

We have signed a new agreement enabling joint use of facilities with Australia's Defence Science and Technology Organisation (DSTO), providing opportunities for closer working and cost savings. We have also assisted in increasing the number of Technology Demonstrator Programmes between Australia and Canada, highlighting the benefits of sharing resources to achieve common aims.

To meet commitments laid out in the recent White Paper, National Security Through Technology, we are now working to a new set of criteria for S&T procurement decision-making. The aim of the process is to ensure consistency and transparency for external suppliers when taking decisions to determine what work is 'best' or 'must' be done within Government. As before, the start point for all new work is that it will be undertaken by external suppliers unless there is clear reason for it to be done or led by Dstl. To meet additional commitments, the Centre for Defence

Enterprise (CDE) is evolving to provide additional support to Small- and Medium-sized Enterprises (SMEs) and the exploitation of their output. This will enable the CDE to continue to deliver an effective route into MOD for innovative ideas that may have a defence or security application.

We have held Director-level workshops and visits with major defence research companies, progressing in many cases to detailed discussions on areas of mutual interest. Our Relationship Management approach is setting standards and showing the way for strategic relationship management and collaborative working, which we expect to roll out more widely across industry where genuine defence benefit can be achieved. Negotiations on draft arrangements are already well advanced with a number of other companies.

The White Paper has drawn attention to the importance of the strategic relationships between the ►



Supplying sensitive and specialist S&T services

Support to UK-French interoperability

Dstl and the French MOD, Direction Générale De l'Armement (DGA), have worked together, supported by industry from both nations, to demonstrate how the latest simulation technologies can be used for military mission planning, distributed training and experimentation. This capability will contribute to the integration of UK and French forces and will support the future Combined Joint Expeditionary Force (CJEF), one of the main elements of the defence treaty between the UK and France.

A CJEF will be a high-readiness force using existing national high-readiness units. The joint force will require a cost-effective, agile and easily accessible training and mission preparation capability. This UK-French cooperation in defence aims to share development and equipment costs and align research programmes.

This year, the SAFIR (Support to Anglo-French Interoperability and Readiness) research programme demonstrated its capability in parallel with the joint UK-French exercise, Exercise Flandres. The exercise tested the effectiveness of a UK Brigade conducting simulated missions with a French Brigade, as part of a French Division. The exercise demonstrated the interoperability currently achievable and will go on to inform work leading towards the establishment of a CJEF.

SAFIR has shown that, working together, UK and French Government and industry have the ability to use the latest simulation technologies and methods to create a sustainable, distributed, simulation-based capability.

Right: A new shot detection system, Boomerang III, is protecting troops in Afghanistan against small-arms fire. The system detects incoming shots fired at patrol bases and, using a high-tech display, indicates the location of the enemy firing point allowing troops to rapidly return accurate fire or move to safety.

After examining emerging technologies to counter the small-arms threat, Dstl conducted trials with the Infantry Trials and Development Unit (ITDU) and in theatre. Identifying Boomerang III as the preferred solution, Dstl scientists made recommendations to industry on how to improve the system and develop it into a capability to save lives on the front line.



organisations responsible for defence and security within the Government. Our relationships with the Research Councils have been consolidated during the year through secondment of our people into the headquarters' teams of four councils. We have worked closely with the Technology Strategy Board on support to the Small Business Research Initiative through joint themed calls managed by the CDE and on establishing, through a secondment into the TSB, the Defence Special Interest Group within the Aerospace and Defence Knowledge Transfer Network.

Closer collaborative working between the Atomic Weapons Establishment (AWE) and Dstl teams following the signing in 2010 of the AWE/Dstl Statement of Principles has been

commended by MOD's CSA and has been reinforced by agreement on commercial arrangements designed to support more efficient cross-tasking. A strategic relationship statement of principles to develop a closer working relationship with the UK Space Agency was signed in May 2011.

We continue to work closely with other members of Interlab, a co-operative of seven Government research laboratories spanning five Government Departments, which exists to enhance the nation's capability in emergency response, security and consequence management and disease control through knowledge sharing. Active working groups cover consequence management, procurement and intellectual property exploitation, and

contact networks share best practice on a broad range of organisational and operational challenges. Members' capacity to provide mutual support to ensure business continuity during a crisis was successfully tested during Exercise PANORAMA, a high-level table-top exercise, which reported early this financial year.

The expertise and insight in universities remains a valuable asset to Dstl and this year we have further improved our engagement. As well as numerous bilateral engagements, Dstl's PhD scheme is not only sponsoring relevant research in collaborating universities but also providing a springboard for more strategic engagement with the academic base.

Innovation protects personnel

A team of Dstl scientists has made significant improvements to vehicle armour systems, in particular to fixtures that protect personnel on the inside of vehicles.

While the very best protection is attached to the outside of vehicles, Dstl research has identified that an extra layer of protection is needed inside to be effective against an array of different weaponry.

The result is an arrangement of spall liners, positioned around the inside cabin, a small distance from the vehicle frame. Spall liners are an arrangement of molecularly manipulated polyethylene, the same material used to produce supermarket carrier bags. The polyethylene is spun into a fibre and compressed tightly; the units feel similar to dense wood, albeit lighter with far higher resilience to ballistic stress.

The extra line of protection is a very important innovation as it reduces the risk of casualty to the personnel inside the vehicle from secondary projectiles – equipment moved as a

direct result of another projectile, for example fragments of the outer wall hit by a bullet.

Using the armour system designed for the recently procured Foxhound vehicle, small charges, powerful enough to deliberately penetrate the armour, were used to test the ballistic performance of the spall liners.

Dstl also devised a safe method of attaching this second layer of defence, so as not to cause risk of injury if the vehicle was hit by enemy fire. By applying a mechanical system to the seating in the vehicle, the spall liners are safely installed without adding to the mass of equipment already required, reducing the weight burden of adding the spall liners to the protection system.

Working with the Foxhound's manufacturer, Force Protection Europe, Dstl found that the spall liners could safely be installed with just one extra bolt per unit than the total required to build the vehicle using current practices.



Our people

Dstl recognises that an excellent, agile and engaged workforce is critical to successfully delivering high-impact work.

These are not easy times for the public sector with a climate of financial constraints, job uncertainty and negative media coverage. We are therefore really pleased with our Civil Service People Survey results that have seen us maintain our place in the top quartile and as a high-performing organisation in the public sector, with our staff engagement score only dropping by one percentage point to 63 per cent.

Last year, leadership and managing change was identified as a capability we wanted to improve and we are pleased that we have achieved a three per cent increase in our score. There has also been an increase in the number of people who are receiving regular feedback from their line managers. These are both areas where we aim to continue with this improvement next year and we intend to work with Civil Service Learning to ensure we have the right training and support available for all our managers and leaders.

Our staff continue to be highly motivated by what they do, with 93 per cent finding their work

interesting and 68 per cent proud to tell others that they are part of Dstl. Despite the current restrictions, we have worked hard to maintain our investment in skills development and there is an increase in people saying they are able to access the right learning and development opportunities with us, scoring 15 per cent higher than the Civil Service median.

We are also delighted that the opportunity to develop careers within Dstl is reported as 25 per cent higher than the Civil Service median and 17 per cent higher than the highest performing Civil Service organisations. Last year, 221 people achieved a career level promotion, including four who became Fellows and Senior Principals – noted experts within their fields.

Dstl's role includes championing and developing S&T skills across MOD, including managing the careers of MOD scientists. We have formed a MOD-wide steering group to share workforce planning assumptions, share best practice and develop a career framework that demonstrates the range of roles and career options available. We also recognise the

increasing demand for our people to work in advisory roles, often off-site and embedded in the customer's team. We have developed a technical consulting programme to develop and support people working in this way and more than 60 people have participated so far.

Organisation agility is important and we recognise the contribution of our total workforce in delivering our role, be they permanent or temporary, civilian or military staff, or contractors and strategic partners. This year, our permanent workforce has fallen from 3,613 to 3,483 (3,501 to 3,368 Full Time Equivalent). Attracting and retaining the best staff remains a top priority and we recruited 33 permanent staff and 158 on Fixed-Term Appointments (FTAs) during the year. Resignation rates remain low at 5 per cent (permanent).

We currently have 84 people on secondments to industry, to Other Government Departments (OGDs) and to wider MOD. We have also welcomed 52 inward secondees.

This year, the Civil Service People Survey showed increasing dissatisfaction with pay, and benefits

First-class support

During 2011/12, as part of its alignment with the Civil Service Next Generation Human Resources (HR) programme, Dstl launched HR Business Services. This capability provides first line and second line advice, information and guidance on all aspects of HR in Dstl, focusing its service on line managers and individual members of staff. The service ethos is one of “how can we help” thereby ensuring that our people are provided with the HR advice, support and guidance they require to enable them to deliver their work.

This change has allowed the HR Business Partner team to focus on working with senior leaders on improving business performance and placed the majority of transactional work within one core area, improving



cross-skilling, resilience and career development opportunities for HR staff working within the capability.

Since July 2011, HR Business Services responded to the majority of calls to its dedicated email addresses and telephone number in less than one hour (this does not include emails or

phone calls made directly to individuals within the capability). For the first time this year, the types of queries were analysed in order to publish Frequently Asked Questions (FAQs) and produce improved guidance on the Dstl Management System.

could worsen in the second year of the pay freeze. As a result we have actively involved people in discussions about future reward strategy and how best to communicate the full range of benefits available.

Our relationship with the Trades Unions (TUs) is very important to us and we will continue to fully consult them on reward, work-life balance, and other staff concerns. We are committed to supporting people with disabilities and we are proud to be accredited to the ‘Positive about Disability’ Two Ticks Scheme. We are building on our diversity training for senior managers and constantly work with individuals to make

adjustments, allowing them to access promotion opportunities within Dstl.

We have announced our plans to relocate from our site at Fort Halstead, which will see more than 800 people being offered a move to either Porton Down or Portsdown West by 2016. We have issued the first Letters of Intent to 188 people and are supporting all those who are affected, building on previous successful site relocation experiences.

The health, safety and wellbeing of our staff continue to be of paramount importance. Over the past year, we have continued the drive to improve our safety culture, and are on track to achieve

Level 5 on the cultural maturity scale by December 2015. The percentage of reportable injuries of total headcount was 0.2 per cent. We have developed and introduced a new approach to risk assessment, and we have introduced a training course with a focus on safety culture targeted at our senior leaders.

Overall sickness absence continues to remain low at an average of 4.72 days per person per year, which is considerably lower than the UK norm. Sickness absence continues to be closely monitored and we have completed the roll-out of improved absence management, which focuses on ‘return to work’ interviews.

Awards and honours



Our staff are regular recipients of national and international accolades in recognition of their exceptional achievements in defence S&T fields. The following highlights are just a small selection of staff awards and honours from the past 12 months.

Exemplary contribution to the exploitation of science and engineering

Former Chief Executive Frances Saunders was made a Companion of the Order of the Bath (CB) for her exemplary contribution to the exploitation of science and engineering over the past 20 years. Her award recognised her outstanding leadership of Dstl at a time of particular challenge, including leadership in providing support to current military operations.

Front-line support

Deborah Fish was awarded an OBE (Order of the British Empire) for her contribution to the safety and protection of UK troops in Iraq and Afghanistan through her delivery of life-saving advances in armour protection and her work as a scientific adviser in theatre.

Dstl Fellow Douglas Kirkpatrick received an OBE for his development of two ground-breaking bomb disposal systems.

Andrew Baxter was awarded an OBE in recognition of his world-leading armour protection work.

Operational Analysts Vicki Savage and Jon Dalley, and Deputy Scientific Adviser Andy Caldwell were awarded Commander's Coins in recognition of their 'outstanding service or performance of duty' in support of operations during several Op HERRICK tours. Coins are given at the Commander's discretion.

Accolades abroad

Dave Winterborne was presented with the Harold Swinnerton Award by president of the Institute of Explosives Engineers, for his services to the explosives industry in recognition of his work on the development and implementation of the Explosives National Occupational Standards.

Sam Dudin presented on the Historical Characteristics of Non-Combatant Evacuation Operations, at the annual International Symposium on Military

Operational Research (ISMOR), winning the prize for the most entertaining paper.

Harry Taylor won the Schaffner Prize for the best electromagnetic compatibility (EMC) project at York University.

Hugo Guthrie, Kevin Martin and Sarah Watts, in collaboration with surgeons from RCDM (Royal Centre for Defence Medicine), won first prize for a session of the British Orthopaedic Research Society and British Orthopaedic Trainees Association, at the British and Irish Orthopaedic Association meeting in Dublin.

Riccardo d'Elia, was awarded the Dstl internal award, the Graham Mathieson prize for 2011, for his impact as a new starter at Dstl.

Dan Pope took third prize in the 2011 John Benjamin Memorial Award for Dstl and QinetiQ employees, for his work on the Human Injury predictor.

Dstl's Travel Plan Co-ordinator, Darren Hall, was Highly Commended in the Act Travel Wise – Travel Planner of the Year 2011, for his work on sustainable travel at Dstl.



Frances Saunders receives her CB honour



Andrew Baxter

Chief Scientific Adviser Commendations

In 2011/12, a number of Dstl staff were awarded individual or team commendations by MOD's Chief Scientific Adviser in recognition of their exceptional contributions to science and technology in support of defence and security. The Commendations included:

Operational Measurement and Signatures Intelligence (MASINT) Team Matthew Nottingham, Darren Muff, Natalie Awbery, Matthew Bristow and Andrew Pilditch.

Strategic Defence and Security Review (SDSR) Analysis Team Will Jones and Robert Solly.

Human Dimension and Medical Sciences Domain Kate Griffin.

Counter-Improvised Explosive Devices (C-IED) Information Management/Information Exploitation (IM IX) Team Deborah Riglar, Nicholas Kemp, Olwen Worthington and Douglas Sim.

Balance of Investment Team Martha Williams, Robert Solly and Louise Martingale.

Detection of Home-made Explosives Deployment Team Philip Clare, Sean Murphy, Felicity House, Graham Jessup, John Piper, Laurence Eyles, Nicola Clare, Natalie Awbery and William Oxford.

Physical Protection Group Mines Team Ian Elgy, Margaret Normand, Matthew Gant, Charlene Gibson, Graham Williams and David Lugton.

Special Research Projects Team Carl Mayers, Katharine Gammon and Tina Robinson-Collins.

Stabilisation Study Team Colin Marston, Howard Body, Alistair Vincent, Nathan Hanley, Patrick Rose, Samuel Scott, Kay Uppington, Paul Strong, Stanley Coombes, Nicholas Bell, Jeremy Thomas, John Owen, Oliver Talbot and John Cooper.

VALKYRIE Management Team Alex Lambert, Tim Carlton, Simon Clarke and Joanne Pratt.

Exceptional contribution in support to CSA and to his office Peter Thompson, Kirsty Carter-Brown and Ian Morton.

Sustainability

Dstl recognises 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*.

Travel

We have continued to reduce single-occupancy car commuter travel and we have had some notable successes over the past year. At Porton Down, our target was to reduce single-occupancy car travel from 79 per cent in 2005 to 72 per cent by August 2013, and at Portsdown West our target was to reduce this figure from 84 per cent to 77 per cent over the same timeframe. We have already surpassed this target at both sites, with single-occupancy car travel at Porton Down running at 70 per cent and 71 per cent at Portsdown West, as at November and August 2011, respectively. We are now in the process of setting new targets.

We also achieved our target to reduce business travel – air, road and rail combined – by 10 per cent by March 2012 (from a 2007 baseline). The number of journeys reduced by 18 per cent, and costs reduced in real terms by 32 per cent. Business car mileage alone was down by 9 per cent.

In January 2012, we introduced TelePresence facilities (video conferencing equipment) at Porton Down, Portsdown West and Fort Halstead. TelePresence has already saved us more than 75,000 business miles, which equates to 18.38 tonnes of carbon dioxide, 1,752 hours of travelling time, and travel cost savings of just over £30,000. This was with utilisation running at only 33 per cent, as we continue to encourage staff to make use of these facilities. We are piloting TelePresence in the wider MOD.

We continue to run a comprehensive range of shuttle and public bus services, which, on average, saves us around 6,000 commuter miles per day. Our car-share scheme also continues to attract new members, with 22 per cent of our staff now

using car-sharing for work travel. Elsewhere, 52 people joined our cycle-to-work scheme over the past year, with membership currently standing at 316. We continue to work with the local authorities around Porton Down and Portsdown West to improve conditions for cyclists to and from these sites, in anticipation of our move from Fort Halstead.

In the news, Dstl Portsdown West won the extra large employer category of the ninth annual Big Green Commuter Challenge in the Portsmouth area in May 2011. This challenge encourages employees to leave their cars at home and choose an alternative for the day. Our staff at Portsdown West saved a total of 18,229 miles over the course of the week.

Environmental

We have received external verification by LRQA (Lloyd's Register Quality Assurance) that we are able to demonstrate continual improvement in environmental performance in accordance with the international standard for environmental management, ISO 14001: 2004.

In July 2011, a Change to Approval was sought for the activities undertaken at Porton Down. The successful completion of this assessment represents the conclusion of the phased implementation of an ISO 14001 certified Environmental Management System (EMS) across our sites at Porton Down, Portsdown West and Fort Halstead.

Every three years after initial certification, LRQA is required by UKAS (United Kingdom Accreditation Service) to conduct a certificate renewal assessment. This was successfully concluded in September 2011. ►

*See the Dstl Sustainability Report for the year ended 31 March 2012 on pages 76 to 78.

Aiding climate change research

Data collected by Royal Navy vessels, as part of standard operations, is set to provide clues on Arctic climate change. Thanks to MOD, researchers will now be able to see previously unavailable information about the conditions under the ice and on the changes taking place in the Arctic.

Dstl is working with the Natural Environment Research Council (NERC) and the UK Hydrographic Office (UKHO) to prepare the data for the benefit of environmental researchers. Involved in the early part of the project, we are consulting with researchers and assessing which information would be appropriate for their studies.

The project, known as the Submarine Estimates of Arctic Turbulence Spectra (SEATS), is funded through NERC's Arctic Research Programme. It will see the controlled release of scientific analysis on environmental changes.

Dstl marine scientist Tim Clarke said: "This has really been a collaborative effort and without co-operation of all bodies involved, it would not have been possible. What this represents is the availability of important scientific data, previously inaccessible, which can only move the study forward. MOD is excited by this project since it puts UK researchers at the forefront of climate change science. Any progress will, ultimately, lead to an improved oceanographic product for Royal Navy operations."

National Oceanography Centre Researcher John Allen said: "We're delighted that this information will be available and thank each of the organisations who have been instrumental in releasing this data. It's really important to have this information as it will enable us to clearly measure the changes that have occurred in recent years, which is paramount for the accuracy, wider impact and legacy of global environmental science research."





Last year, our people chose to support Help for Heroes for the next three years. In the first year alone we have raised more than £29,900. Dstl staff also continue to support the Royal British Legion, raising £846 in November 2011.

With all core sites now certificated, we are able to fully demonstrate that we are maintaining an ISO 14001-compliant EMS, in accordance with the Dstl Framework Document. However, it is recognised that the EMS needs to attain a greater degree of maturity over forthcoming years in order that it can be fully embedded into the way we run our business.

We are continuing to deliver improvements in the areas of waste, energy efficiency and carbon reduction. Last year, we recycled or reused 89 per cent of our waste, which is in line with MOD and Government targets.

Around 70 per cent of our buildings across our Estate are sub-metered, which enables us to monitor usage accurately and identify areas for further efficiencies. We are also investigating the feasibility of a wind turbine at Portsmouth West.

In order to meet our legislative requirements, we are considering new ways of working, such as adopting a flexible desking policy (a ratio of 80 desks for every 100 staff) and enabling more home/remote working.

Community

Last year, our people chose to support Help for Heroes (H4H) for the next three years. In the first year alone we have raised more than £29,900 for this cause. We have dedicated Charity Co-ordinators, co-ordinating a raft of events throughout the year – from a colossal cake sale and car washes to dressing as superheroes for the day.

Adding significantly to our total this year, has been a team of staff known as 'Wilburforce', raising money for H4H in memory of Will Blanchard, a Dstl colleague who died in Afghanistan while serving as a volunteer with the Counter-IED (Improved

Explosive Device) Task Force. Wilburforce was set up in his name and aims to raise money through sponsorship, over a series of highly physical challenges, which have so far included the Great South Run and the Three Peaks Challenge.

Aside from H4H, we also continue to support the Royal British Legion, raising £846 in November 2011.

We continue to work as STEM (Science, Technology, Engineering and Maths) Ambassadors in local schools. They respond to schools' requests for fun activities and careers advice that can inspire the next generation to pursue a career in the STEM subjects. Ambassadors' activities raise our profile in a positive way in our local communities, and STEM Ambassadors gain personal development from the opportunity to communicate their work to a non-technical audience. The work they do is varied and involves young people aged 4 to 18.

Some STEM Ambassador highlights from the past year include:

- Teams at Fort Halstead supported four local primary schools with weekly science clubs, teaching children engineering skills as part of a challenge to build and race go-karts.
- Ambassadors took semaphore flags and Lego® robots to Portsmouth Education Business Partnership Science Fair, making science fun for Year 6 children, who attended the event over three days.
- Ambassadors with Physics backgrounds shared their experiences of studying and working in Physics as part of a well-attended open evening at Porton Down, helping A-Level students to make informed decisions about university courses.

We also ran a successful work experience programme at Porton Down last year and we will be running a similar programme for students again this summer.



Supplying sensitive and specialist S&T services

Improving standards

Dstl is leading the way in the development of common-message standards to improve the way Electronic Surveillance (ES) information is shared. This is important in order to meet the demanding military requirements of timeliness and accuracy of target geolocation, particularly with the high tempo of modern warfare.

In theatre, it is imperative that information flows quickly and smoothly between sensors, decision-makers and the engaged troops. Rapidly locating and identifying threats through ES has an immediate positive effect in areas including imminent threat warning for force protection and electronic order of battle generation.

Dstl led the development of a common message standard that is coherent with other coalition networks, in support of the NATO Signal Intelligence and Electronic Warfare

Working Group (SEWWG) with the support of other NATO nations and UK industry. This work attracted significant interest from coalition partners and will play a critical role in helping NATO meet its future Intelligence Surveillance Reconnaissance (ISR) objectives.

In order to improve data-sharing, Dstl also developed joint operating procedures to govern the use of networking technology, and developed a concept demonstrator (CESMO – Cooperative Electronic Support Measures Operations) that implements the defined standards and enables military platforms to test and evaluate technology in an operationally relevant environment.

The impact of this work will benefit a number of stakeholders within MOD involved in the acquisition of ES technologies.

Corporate governance

Our Board of Directors as at 31 March 2012

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 to 2007, with roles 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 is a former 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 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 Limited and a Governor of King's College School, Wimbledon. In his executive career, he held senior finance and strategic advisory roles in the City and industry, including positions as a Managing Director of Bankers Trust Company, as a Regional Director of Hill Samuel Bank Ltd and as Group Finance Director of Wincanton Plc. As well as his Board role, Gerard has been appointed Chairman of Dstl's Audit Committee.



John Neilson

Appointed to the Board
01 April 2011

John is MOD Director Financial Management with responsibilities for MOD's Trading Funds and asset sales. He was previously Director Research Base at the Department for Business Innovation and Skills. He has been a Member of the Medical Research Council and the Arts & Humanities Research Council and an Executive Board Member at Ofgem. John Neilson left MOD in April 2012 and his position on the Board has been replaced.

* As at 31 March 2012, there are two NED vacancies.

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, responsible for the management of the MOD CSA's S&T programme. Previous roles in MOD have included Director Helicopters at Defence Equipment and Support (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
Director Corporate Strategy

Appointed to the Board
04 January 2012

Peter joined Dstl in 2001 as Programme Lead for ISTAR (Intelligence, Surveillance, Target Acquisition and Reconnaissance). He was appointed Head of MOD's Counter Terrorism S&T Centre in 2008, receiving a MOD CSA Commendation in 2009 before promotion to Dstl Programme Director (Research and Technology). In April 2010, Peter was appointed Programme Director (Security Science and Technology) in the newly formed Programme Office. He was then seconded to MOD Head Office to lead the scientific contribution to Defence Reform, MOD's S&T Strategy for Defence and the White Paper, National Security Through Technology. He returned to Dstl to take up his current post in January 2012.



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 20 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
HR 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

The Board

Sir Richard Mottram	Non-Executive Chairman	–
Elisabeth Astall	Independent Non-Executive Director	–
Lord May of Oxford	Independent Non-Executive Director	contract ended 31.03.2012
Christopher Swinson	Independent Non-Executive Director	contract ended 30.11.2011
Gerard Connell	Independent Non-Executive Director	appointed 01.10.2011
Emma Davies	Non-Executive Director	resigned 01.04.2011
John Neilson	Non-Executive Director	appointed 01.04.2011
Frances Saunders	Chief Executive	resigned 23.03.2012
Jonathan Lyle	Programme Office Director	until 04.03.2012
	Chief Executive	from 05.03.2012
Peter Starkey	Deputy CE/Strategy and Implementation Director	resigned 01.07.2011
Peter Thompson	Deputy CE/Director Corporate Strategy	appointed 04.01.2012
Mark Alexander	Finance Director	–
Barbara Busby	Human Resources and Communications Director	–
Jill Cook	Interim Infrastructure Director	resigned 12.12.2011

The Executive

Frances Saunders	Chief Executive	resigned 23.03.2012
Jonathan Lyle	Programme Office Director	until 04.03.2012
	Chief Executive	from 05.03.2012
Peter Starkey	Deputy CE/Strategy and Implementation Director	resigned 01.07.2011
Peter Thompson	Deputy CE/Director Corporate Strategy	–
Mark Alexander	Finance Director	–
Barbara Busby	Human Resources and Communications Director	–
Brian Court	Infrastructure Director	resigned 30.04.2011
Jill Cook	Interim Infrastructure Director	resigned 12.12.2011
Graham Balmer	Infrastructure Director	appointed 01.12.2011
Andrew Bell	Chief Technical Officer	–
Jennifer Henderson	Operations Director (Acting)	–
Robert Eason	Programme Director Technology Exploitation	–
Mark Fulop	Programme Director Security Science and Technology	–
Christopher Gibson	Programme Director Defence Capabilities and Systems	–
Michael Steeden	Strategic Relations Director	resigned from the Executive 30.11.2011

Directors' remuneration report

Remuneration policy

The following remuneration policy refers to the employment of its Directors. Four 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 fifth Director who is an SCS member but he is on secondment from MOD and is paid by MOD. His remuneration is set by MOD.

The remaining Executive Directors are Dstl employees and 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

There were no significant awards made to past senior managers.

Dstl Board Directors' remuneration (excluding pension arrangements)

This information is subject to audit.

Name	Salary band 2011/12 £'000	Salary band 2010/11 £'000	NCPA* 2011/12 £'000	NCPA 2010/11 £'000	Fee 2011/12 £'000	Fee 2010/11 £'000
Sir Richard Mottram					35 - 40	35 - 40
Frances Saunders ¹	100 - 105 <i>100 - 105</i>	100 - 105		5 - 10		
Jonathan Lyle ²	90 - 95	90 - 95		5 - 10		
Peter Starkey ³	35 - 40 <i>85 - 90</i>	85 - 90				
Peter Thompson ⁴	85 - 90	75 - 80	5 - 10	0 - 5		
Mark Alexander	95 - 100	95 - 100	0 - 5			
Barbara Busby	70 - 75	70 - 75	0 - 5	5 - 10		
Jill Cook ⁵	50 - 55 <i>70 - 75</i>	70 - 75	5 - 10	0 - 5		
Elisabeth Astall					20 - 25	20 - 25
Lord May of Oxford ⁶					20 - 25	20 - 25
Christopher Swinson ⁷					10 - 15 <i>20 - 25</i>	20 - 25
Gerard Connell ⁸					5 - 10 <i>15 - 20</i>	
John Neilson ⁹						

	2011/12	2010/11
Band of Highest Paid Directors Total Remuneration	£100k - £105k	£105k - £110k
Median Total Remuneration	£34,860	£34,884
Ratio ¹⁰	2.94	3.08

Figures in italics denote full-year equivalent salary.

*Non-consolidated Performance Awards (NCPAs)

NCPAs have been awarded as indicated for 2011/12. NCPAs are paid based on Performance Evaluation Criteria scores, which are awarded in line with the performance management rules.

Fees have been paid as indicated for 2011/12.

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

There was no non-cash element of the remuneration package.

There were no amounts payable to third parties for services of a senior manager.

¹ Frances Saunders left under voluntary exit terms on 23/03/2012. She received a compensation payment of £63,000.

² Jonathan Lyle was promoted to Chief Executive on 05/03/2012. His new salary is band £100k - £105k.

³ Peter Starkey left under voluntary exit terms on 01/07/2011. He received a compensation payment of £138,000.

⁴ Peter Thompson joined the Dstl Board on 04/01/2012.

⁵ Jill Cook left under voluntary exit terms on 12/12/2011. She received no compensation payment.

⁶ Lord May of Oxford's contract ended on 31/03/2012.

⁷ Christopher Swinson's contract ended on 30/11/2011.

⁸ Gerard Connell joined on 01/10/2011.

⁹ John Neilson has received no fee; he 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.

Dstl is required to disclose the relationship between the remuneration of the highest-paid director in its organisation and the median remuneration of the organisation's workforce.

¹⁰ The banded remuneration of the highest-paid director in Dstl in the financial year 2011/12 was £100k - £105k (2010/11: £105k - £110k). This was 2.94 times (2010/11: 3.08) the median remuneration of the workforce, which was £34,860 (2010/11: £34,884).

In both 2010/11 and 2011/12, 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 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 31/03/12 [and related lump sum] £'000	Cash equivalent value at 31/03/11* £'000	Cash equivalent value at 31/03/12 £'000	Real increase in Cash Equivalent Transfer Value as funded by employer £'000
Frances Saunders	-2.5 - 0	50 - 55	924.0	981.0	22.0
Jonathan Lyle	0 - 2.5	50 - 55	771.0	843.0	5.0
Peter Starkey	-2.5 - 0 [-2.5 - 0]	30 - 35 [100 - 105]	727.0	754.0	-5.0
Peter Thompson	0 - 2.5 [5 - 7.5]	15 - 20 [55 - 60]	242.0	300.0	26.0
Mark Alexander	2.5 - 5	10 - 15	97.0	135.0	27.0
Barbara Busby	2.5 - 5	10 - 15	113.0	174.0	40.0
Jill Cook	-2.5 - 0 [-2.5 - 0]	25 - 30 [85 - 90]	551.0	581.0	-7.0

*The actuarial factors that are used in the CETV calculation were changed during 2011. This means that the CETV in this year's report for 31/03/2011 will not be the same as the corresponding figure shown in last year's Annual Report and Accounts.

With the exception of Frances Saunders, 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 6 to the accounts.

Executive committee remuneration (excluding pension arrangements)

This information is subject to audit.

Name	Salary Band 2011/12 £'000	Salary Band 2010/11 £'000	NCPA 2011/12 £'000	NCPA 2010/11 £'000
Frances Saunders ¹	100 - 105 <i>100 - 105</i>	100 - 105		5 - 10
Jonathan Lyle ²	90 - 95	90 - 95		5 - 10
Peter Starkey ³	35 - 40 <i>85 - 90</i>	85 - 90		
Peter Thompson	85 - 90	75 - 80	5 - 10	0 - 5
Mark Alexander	95 - 100	95 - 100	0 - 5	
Barbara Busby	70 - 75	70 - 75	0 - 5	5 - 10
Brian Court ⁴	0 - 5 <i>55 - 60</i>	60 - 65		
Jill Cook ⁵	50 - 55 <i>70 - 75</i>	70 - 75	5 - 10	0 - 5
Graham Balmer ⁶	25 - 30 <i>70 - 75</i>			
Andrew Bell	70 - 75	75 - 80	5 - 10	5 - 10
Jennifer Henderson	70 - 75	55 - 60 <i>65 - 70</i>	5 - 10	0 - 5
Mark Fulop	70 - 75	70 - 75	0 - 5	0 - 5
Christopher Gibson	75 - 80	75 - 80	5 - 10	5 - 10
Robert Eason ⁷				
Michael Steeden ⁸	35 - 40 <i>75 - 80</i>	55 - 60 <i>75 - 80</i>	0 - 5 <i>0 - 5</i>	

Figures in italics denote full-year equivalent salary/NCPA

NCPAs have been awarded as indicated for 2011/12. NCPAs are paid based on Performance Evaluation Criteria scores, which 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. There was no non-cash element of the remuneration package.

¹ Frances Saunders left under voluntary exit terms on 23/03/2012. She received a compensation payment of £63,000.

² Jonathan Lyle was promoted to Chief Executive on 05/03/2012. His new salary is band £100k - £105k.

³ Peter Starkey left under voluntary exit terms on 01/07/2011. He received a compensation payment of £138,000.

⁴ Brian Court was absent on special paid leave until 30/04/2011 when he transferred to MOD.

⁵ Jill Cook left under voluntary exit terms on 12/12/2011. She received no compensation payment.

⁶ Graham Balmer joined the Executive on 01/12/2011.

⁷ Robert Eason is an inward secondee from MOD. He is paid by MOD – SCS Pay Band 1 (£58,200 - £117,800). Dstl is invoiced for his services at a total cost of £81,470.31 for 2011/12.

⁸ Michael Steeden is employed by Dstl on a part-time basis and left the Executive on 30/11/2011.

Except for payments made to MOD for the secondment of Robert Eason, 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] £'000	Total accrued pension at pension age at 31/03/12 [and related lump sum] £'000	Cash equivalent value at 31/03/11* £'000	Cash equivalent value at 31/03/12 £'000	Real increase in Cash Equivalent Transfer Value as funded by employer £'000
Frances Saunders	-2.5 - 0	50 - 55	924.0	981.0	22.0
Jonathan Lyle	0 - 2.5	50 - 55	771.0	843.0	5.0
Peter Starkey	-2.5 - 0 [-2.5 - 0]	30 - 35 [100 - 105]	727.0	754.0	-5.0
Peter Thompson	0 - 2.5 [5.0 - 7.5]	15 - 20 [55 - 60]	242.0	300.0	26.0
Mark Alexander	2.5 - 5.0	10 - 15	97.0	135.0	27.0
Barbara Busby	2.5 - 5.0	10 - 15	113.0	174.0	40.0
Brian Court ¹	-2.5 - 0 [-2.5 - 0]	15 - 20 [55 - 60]	267.0	268.0	0
Jill Cook	-2.5 - 0 [-2.5 - 0]	25 - 30 [85 - 90]	551.0	581.0	-7.0
Graham Balmer	0 - 2.5 [0 - 2.5]	20 - 25 [25 - 30]	250.0	274.0	11.0
Andrew Bell	0 - 2.5 [0 - 2.5]	15 - 20 [50 - 55]	240.0	263.0	0
Jennifer Henderson	0 - 2.5 [0 - 2.5]	15 - 20 [45 - 50]	172.0	194.0	6.0
Mark Fulop	-2.5 - 0 [-2.5 - 0]	20 - 25 [65 - 70]	323.0	349.0	-2.0
Christopher Gibson	-2.5 - 0 [-2.5 - 0]	25 - 30 [75 - 80]	464.0	498.0	-6.0
Robert Eason ²					
Michael Steeden ³	0 - 2.5	45 - 50	797.0	845.0	10.0

*The actuarial factors that are used in the CETV calculation were changed during 2011. This means that the CETV in this year's report for 31/03/2011 will not be the same as the corresponding figure shown in last year's Annual Report and Accounts.

With the exception of Frances Saunders, Jonathan Lyle, Barbara Busby and Mike Steeden, 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 6 to the accounts.

¹ Brian Court was absent on special paid leave until 30/04/2011 when he transferred to MOD.

² Robert Eason is an inward secondee from MOD. He is paid by MOD – SCS Pay Band 1 (£58,200-£117,800). Dstl is invoiced for his services at a total cost of £81,470.31 for 2011/12.

³ Michael Steeden is employed by Dstl on a part-time basis and left the Executive on 30/11/2011. He has a preserved pension and lump sum that has been notionally aggregated for the purposes of this report.

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 from either 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 2011/12, Dstl has not had any incidents that have resulted in the unauthorised disclosure of protected personal data. Dstl continues its emphasis on effective Information Assurance through the measures and controls surrounding the Senior Information Risk Owner, and ensuring that information compliance standards are maintained through the Dstl Joint Compliance Committee.



Jonathan Lyle
Chief Executive
31 May 2012

Governance Statement

As Accounting Officer for Dstl, I have overall responsibility for maintaining a sound system of internal control that supports the purpose and role of the organisation and the delivery of our strategic objectives, while safeguarding the public funds and MOD assets for which I am personally responsible, in accordance with the responsibilities assigned to me by HM Treasury.

Corporate Governance

Our governance framework

Dstl was established as an Executive Agency of MOD in 2001. It operates as a Trading Fund for which the Secretary of State for Defence has ultimate responsibility, in accordance with its Trading Fund Order, which was renewed in May 2011. The Minister of State for Defence Equipment, Support and Technology (Min(DEST)) assists the Secretary of State for Defence in the discharge of his responsibilities with regard to Dstl. This includes determining the policy and financial framework within which Dstl operates, determining Dstl's strategic performance and financial objectives, and satisfying himself that the Dstl Board is working effectively. Min(DEST) is supported by the Owner's Council, which comprises senior stakeholders across MOD, and by MOD's Business Strategy and Governance branch. Dstl's Board is responsible for developing our corporate plan for approval by the Owner, approving our business plan, and approving expenditure proposals within its delegated powers or making recommendations to the Owner where appropriate. It considers how best to achieve the objectives approved by the Owner and monitors performance against delivery plans. During the financial year, the Dstl Board comprised a Chair, three other Non-Executive Directors (NEDs) with external experience relevant to the work of Dstl, a NED from MOD, the Chief Executive and five senior Executives (reduced to four during the year). One of the Non-Executive roles was vacant at the beginning of the year and a competition to fill the vacancy did not lead to an appointment. A further competition was launched and an appointment is expected shortly. The Board is supported by an Audit Committee, a Nomination Committee and a Remuneration Committee.

Dstl Board and its committees

Over the past year, the Board has met on seven occasions. The Chairman and the Chief Executive have been present at all meetings and there have been high levels of attendance by other Non-Executive and Executive members. The Board has considered a wide-range of strategic and operational issues affecting Dstl over the course of the year, as well as scrutinising and challenging our policies and performance. Issues considered have included: relocating our operations from Fort Halstead to Porton Down and Portsdown West; the future purpose and scope of the Centre for Defence Enterprise; the criteria for use within Dstl to decide whether

work is undertaken internally or externally; the management of ethnicity issues within Dstl; the approaches to responding to budgetary pressures; and, the implications of Defence Transformation, including the Materiel Strategy.

The Audit Committee, which consists of two external NEDs and one MOD NED, meets on a quarterly basis and is chaired by the appropriately qualified and experienced NED. The chairmanship has changed during the course of the year. However, other NEDs have been present at every meeting, thereby achieving a quorum, as well as the NAO and our internal audit partners, PKF.

The Audit Committee reviews the comprehensiveness, reliability and integrity of assurances in meeting the Board's and my own assurance needs, as well as reviewing the integrity of Dstl's financial statements. Of particular note over the past year has been the issue of Dstl's revised Fraud and Bribery policy, to take account of the Bribery Act 2010 that came into effect on 1 July 2011, and the review and update of our risk management process. The Audit Committee has also received regular Internal Audit and NAO reports.

Over the past year, the Nomination Committee has met once to discuss and agree the approach to sourcing and selecting two new NEDs to the Board. The Remuneration Committee has considered one paper out of committee.

Revised Terms of Reference for the Nomination and Remuneration Committees were agreed in April 2011.

Compliance with the Corporate Governance Code

To the extent that it is deemed relevant and practical, Dstl has followed the requirements set out in the 2011 Code (Corporate governance in central Government departments: Code of good practice), which is focused on the role of boards.

Role of the Board. The Code states that every Board should agree and document its role and responsibilities in a Board Operating Framework (BOF). We do not have a BOF, however we detail this information in our Framework Document and the Board Terms of Reference (currently dated 2008), which will be revised when our updated Framework Document is approved by MOD.

Board composition. The planned composition of the Dstl Board is currently six Non-Executive Directors, including representation from MOD, and five Executive Directors. As at 31 March, the Board comprised eight members, with a competition about to be completed for two new Non-Executive Directors (NEDs) and one Executive Director. Our appointment process aligns with the guidance provided in the Code.

Board effectiveness. We have run a number of training days provided by the National School of Government to help to improve the quality of the papers provided to the Board and to the Executive. The Board is staffed by the Dstl Corporate Secretary. The effectiveness of the Board is evaluated on an annual basis. Business Strategy and Governance branch

(in MOD) have responsibility for evaluating the performance of the Chairman, which was last conducted in June 2011.

Board effectiveness exercise 2011. The exercise was carried out in June and the results presented at the July 2011 meeting of the Board. The report highlighted five key recommendations as follows:

- Creation of a more active role for our NEDs in developing strategy and developing and monitoring non-financial performance
- Consideration of opportunities as well as risk
- Clarification of the place of the Board in Dstl's governance framework
- Increased interaction between NEDs and Executive Directors between Board meetings, and
- Introduction of an induction process for Non-Executive Directors joining the Board.

The Dstl Board Chairman, has commented: "The Board has made good progress in 2011/12 in strengthening its contribution to Dstl's success as an organisation. The Board has looked more comprehensively at performance drawing on better data. Non-Executive and Executive members have worked together on a number of issues to inform Board decision-making. A revised induction process for NEDs was implemented in November 2011. Other aspects of the review of Board effectiveness including the revision of the Dstl Framework Document and further improving risk management are being actively pursued."

Risk management. As well as reviewing and updating the effectiveness of our risk management process over the past year, we have reviewed our corporate risks to ensure they better align with our Corporate Plan and seek to improve efficiencies of our overall assurance programme. The new Chairman of the Audit Committee has been involved in this process and we are close to producing a revised corporate risk register, which also considers opportunities and threats, for approval by the Board.

Risk Framework

As part of our system of internal control, Dstl manages risk to reasonable levels rather than to eliminate all risk of failure, to achieve policies, aims and objectives. Therefore, we provide reasonable and not absolute assurance of effectiveness. We have a well-established corporate approach to risk management, which continues to improve in line with the evolution of the business. Our risk management process is based around the strategic risk cycle, principles and terminology outlined in Management of Risk (issued by the Treasury in 2004, updated in 2007), the UK Risk Management Standard (ISO/IEC 73) and Risk management –

principles and guidelines – the British/International Standard (BS ISO 31000).

Our risk process is designed to consistently identify and prioritise the risks to the achievement of MOD policies, aims and objectives, to evaluate the likelihood of those risks being realised and the impact should they be realised, and to manage them efficiently, effectively and economically. Each risk has a designated owner and specific plans are developed and actions taken in order to improve Dstl's position. This activity is recorded to facilitate ongoing management and reporting, and to inform future work. Our policy on corporate governance and the management of risk is set out in the Dstl Management System (MS), which is available to all staff electronically. This policy, encompassing audit and resilience, is implemented in line with Dstl's procedures, set out in the MS.

More specifically, risks are identified against a framework of Dstl's Strategic Objectives and/or Critical Success Factors. Risks are considered at different levels in the organisation and aggregated, escalated or delegated as appropriate to ensure that they are owned and managed at the correct level. There are risks on two axes of the business: organisational risk and programme risk.

The Dstl Executive reviews the corporate risks, the status of controls and the progress of agreed actions at regular meetings, both collectively and in individual meetings with the Corporate Risk Manager, who is formally tasked with the management of the Corporate Risk Register. Beneath the Corporate level, the risk registers are managed by departmental and functional operational managers who consider risk management and common or cross-cutting risk areas at their regular joint meetings. Risks best managed at Directorate level are held in the risk register that is maintained by the relevant Director.

As Chief Executive, I am responsible for informing the Dstl Board of any significant, emerging risks and for ensuring that Dstl Departments are informed about corporate risks that affect their areas. I have ultimate responsibility for the risk management process. During 2011/12, my predecessor has reported progress in both the development and implementation of the risk process at appropriate Audit Committee meetings.

The principal risks to delivering the Dstl Corporate Plan 2011-16 were:

- Changes in policy and those arising from Defence Reform, as an example, may change fundamental assumptions on which this [Corporate Plan 2011-16] plan is based.
- Loss of trust or credibility with industry, academia, overseas collaborators and Government colleagues would fundamentally undermine Dstl's role and effectiveness.
- A rapid reduction in income on a larger scale than anticipated here [Corporate Plan 2011-16] could undermine the ability of Dstl to sustain key internal or external capabilities and facilities and the ability to invest for future defence and security needs or for future cost reduction.

- Leadership of the programme, the organisation and its people through a period of financial austerity is challenging. Failure to lead effectively could result in an inappropriate programme and the loss of high-quality staff. Existing controls and mitigations and those put in place over the course of the last year have successfully managed these risks. Our principal risks and the underlying corporate risk register have been reviewed and refreshed in light of our strategy, as encompassed by the Dstl Corporate Plan 2012-17. As a result of this review, in which the new Chairman of the Audit Committee was involved, we are establishing management of opportunities as well as threats in the context of our overall risk approach.

Internal Control

Management System (MS)

Our intranet-based Dstl Management System (MS), available to all staff, provides all the policies, processes and guides that underpin Dstl's business and internal commitments. The MS now contains Dstl's policy for S&T procurement decisions as endorsed by Min(DEST), and which reflects Dstl's role at the interface between Government and the wider supply base, in addition to being a supplier of S&T services in its own right. The supplementary procurement decision processes have been integrated into the Laboratory and are available on the MS. Other key revisions in 2011/12 include updating the processes for risk management, internal investment, equality and diversity, standards in public life, whistleblowing and anti-bribery, waste management and working with explosives.

LRQA assessment of MS

The MS featured in the six-monthly audits by Lloyd's Register Quality Assurance (LRQA), resulting in Dstl's recertification in December 2011 to ISO 9001:2008 and The TickIT Guide Issue 5.5. LRQA judged that: "improvements to the Dstl management system continue to be made and the system is 'live' and is being well maintained and updated; improvements have also been made with the introduction of 'process effectiveness' audits." Assessing the impact of the overall system, LRQA stated: "overall measures in terms of project on time, delivery, cost, and customer satisfaction, indicate the system is effective in helping Dstl deliver its customer requirements."

Business Performance Reports

This year, we have introduced a Business Performance Report, which is produced every two months and reviewed by

the Dstl Executive and the Dstl Board. The report enables Dstl to monitor performance across business areas and to direct management action as appropriate.

The format of the business performance report includes a Key Performance Indicator (KPI) Matrix, supplemented by reports from each area of the business.

The KPI Matrix provides a concise overview of our performance against our Critical Success Factors, using quantitative figures assessed against Red-, Amber- and Green-rated thresholds. The indicators include business performance measures related to: our delivery (for example the percentage of projects completed to time, the percentage of projects completed to cost, and customer satisfaction); our people (for example, employee engagement); sustainability (for example, carbon emissions); and our financial performance (for example, operating profit).

The supplementary performance reports from each area of the business are presented by Directorate or key functional areas as appropriate. These reports contain quantitative and qualitative assessments of performance, key risks, issues and the measures put in place to improve performance.

Business resilience

During 2011, we have continued to refine our corporate resilience process. Our emergency managers have had their roles clarified and have been provided with appropriate training.

We have updated the emergency plans for Porton Down, Portsdown West and Fort Halstead – and we have worked closely with the Wiltshire, Hampshire and Kent Local Resilience Forums to achieve this. We have also worked closely with MOD's Directorate of Business Resilience on the development of the new approach to managing Defence Critical Infrastructure and we have piloted this approach at Porton Down.

A range of different exercises has been run throughout the year in order to test specific elements of our resilience, in particular our business continuity plans, and the outputs from these have been fed into the updates for our site emergency plans.

Information Assurance

As an MOD Trading Fund, we are required by the Cabinet Office to include a statement on information management within our Governance Statement.

Strategic Assurance and Information Risk Management.

Dstl has used the Information Assurance (IA) requirements from central Government to draw together historical

disparate reporting activities for security and Information and Communication Technology (ICT) into a single, coherent mechanism under our Senior Information Risk Owner (SIRO). This ensures that the Dstl Board and Executive have effective monitoring, reporting and assurance around our information risk. The Dstl Board and Executive are committed to IA and maintain a well-informed perspective on IA, on cyber defence threats and on information risks through SIRO/IA capabilities, which are appropriately resourced and are operating well.

Data Protection and Data Handling Review (DHR) compliance. We continuously monitor DHR compliance through our Joint Compliance Committee and we are satisfied of our full compliance in this key performance area.

Information Assurance Maturity Progress¹. MOD's Chief Information Officer (CIO) conducted a formal review of Dstl's IA Maturity progress in February 2012. MOD's CIO assessed Dstl as having successfully met the Defence Board objective of IA Maturity Level 3 and categorised Dstl as "effectively operating at IA Maturity Level 3 and approaching Level 4 performance in areas" (Leadership and Governance and Information Risk Management). We remain an exemplar for IA Maturity and we have shared the following areas of good practice with other MOD Top Level Budgets (TLBs)/Agencies: Privacy Impact Assessment (PIA) process; Communication Campaign 'Looking after our Information'; SIRO Governance Structure.

Extract from MOD IA Level 3 Peer Review Report: "The approach Dstl has taken to embedding IA is impressive and it remains sharply focused on success in IA in order to optimise its approach to effective information management. Many of the processes that have been, and continue to be, put in place not only support the success at Level 3 but also support key objectives required for Level 4 maturity. Dstl remains an exemplar in its approach to IA and the management of Steria as a service provider is leading the way for future contracting around a strong IA framework."

Business Improvement Impacts. We have seen three key business improvement impacts:

- Business area leaders are the Information Asset Owners (IAOs) operating within the agreed business risk appetite and in this role are gaining a better understanding of the true resilience priorities for critical information assets.

- The Dstl Executive receives effective ICT performance reporting for its ICT provider (Steria) through SIRO-targeted assurance monitoring linked to IA Maturity Level 3 standards.
- We are managing information vulnerability, threat and risk holistically through SIRO under a single Director for oversight. **Data security lapses.** Dstl maintains an effective IA reporting and incident management regime and we have developed a good working relationship with the Joint Security Coordination Centre. All IA incidents are investigated and, where appropriate, sanctions are applied. We ensure active monitoring of incidents and sanctions through the JCC who report to the SIRO and Audit Committee. Dstl's sanctions this reporting period include:
 - Informal Management Action (Recorded Discussion) = 53
 - Formal Management Action (Written Warning) = 14
 - Final Written Warning = 1
 - Dismissal = 1

Within the reporting period, there was one significant incident of legacy internal mis-accounting of project management material, which was investigated. The investigation has closed and there were a number of important lessons for Dstl and control improvements to implement prior to our next site closure. This incident has been formally reported through the appropriate channels in MOD.

Assurance

Audit Committee and audit arrangements

Dstl's audit arrangements comply with Government Internal Audit Standards and details are set out in the MS. The Audit Committee, which met four times during 2011/12, 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.

During 2011/12, my predecessor and the Finance Director attended all Audit Committee meetings along with representatives from the NAO and PKF. The Audit Committee effectiveness in 2011 was assessed using the NAO self-assessment process. The Audit Committee was considered sound but some recommendations to improve effectiveness were made and are being implemented. The Dstl Board reviews the effectiveness of the system of Governance control through reports on an exceptional basis from its committees and those Executive Directors who have responsibility for key

¹Level 3 – Business enabling: All critical areas of the business subject to a robust IA regime.

Level 4 – Quantitatively managed: The number of corporate exceptions to implementing IA processes is known and reported.

risks. Where any control deficiencies are identified, suitable mitigation measures are put in place.

The Dstl Audit Committee Chairman continues to be satisfied with the quality of the internal and external audit arrangements at Dstl, in helping him to discharge his responsibilities. PKF continues to be Dstl's internal auditor for 2011/12. Regular reports to senior management and to the Dstl Audit Committee provide independent assessment of the system of Governance control and include recommendations for improvement, where appropriate.

Annual assessment of governance

As part of internal audit process, Dstl's governance arrangements were reviewed by PKF. The auditors reported that the governance arrangements had continued to operate in an appropriate manner providing clarity of responsibility and robust scrutiny, and noted that the performance reporting to the Board had been improved providing a better alignment with the corporate plan and that risk management was being strengthened further. The auditors noted that Dstl has established arrangements for managing the wider responsibilities in respect of the non-nuclear research programme granted to it in 2010 and that the underlying processes were being refined to further integrate these activities in the Laboratory. While an updated Framework Document for Dstl was now in draft, the auditors noted the importance of finalising this so that it reflected the current circumstances of Dstl.

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 and there are no significant problems identified.

During the reporting period, there has been one incident concerning payment for the deliverables of a milestone

sub-contract. An internal investigation was completed. The matter has been reported through appropriate channels in MOD in keeping with my Letter of Appointment. The matter is currently the subject of ongoing Ministry of Defence Police (MDP) enquiries.

External reviews

LRQA – ISO 9001:2008 and Tick IT Guide issue 5.5. We were successful in our recertification by LRQA in June 2011, and a follow-up review in December 2011 brought similar success. In both cases, it was concluded that "...the system continues to meet the requirements of ISO 9001:2008 in the areas sampled". This included Tick IT Guide issue 5.5 re-certification to the required standards. No major non conformities were raised.

LRQA – ISO 14001:2004. We have continued to maintain an ISO 14001:2004-certificated environmental management system at Fort Halstead, and Portsmouth West. In addition, Porton Down achieved certification in July 2011 completing compliance at the three sites, where continued improvements in environmental performance have been demonstrated.

MHRA, DOSG, DSAS, DIA, EA, HSE². Continued reviews are undertaken in the key areas of business delivery to assure compliance to regulatory requirements, in particular for the chemical, biological and explosives activities. There were no significant negative outcomes from these assessments.

Any significant internal control problems

Having consulted with my predecessor, I confirm that there were and are no significant internal control problems. PKF audits support the annual Governance Statement required by HM Treasury. These were carried out in accordance with Government Internal Audit Standards and other external requirements.



Jonathan Lyle
Chief Executive
31 May 2012

² Medicines and Healthcare products Regulatory Agency (MHRA); Defence Ordnance Safety Group (DOSG); Defence Security and Assurance Services (DSAS) Defence Internal Audit (DIA); Environment Agency (EA); Health and Safety Executive (HSE)

Accounting information

2011/12

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 Defence Science and Technology Laboratory for the year ended 31 March 2012 under the Government Trading Funds Act 1973. These 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 the 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 the Dstl Group and Trading Fund's affairs as at 31 March 2012 and of the Group and Trading Fund's 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 Financial Review, Business Summary, Our People, Sustainability and Corporate Governance 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

1 June 2012

Statement of Comprehensive Income for the year ended 31 March 2012

	Note 25	2012 Group £ million	2011 <i>Restated</i> Group £ million	2012 Trading Fund £ million	2011 <i>Restated</i> Trading Fund £ million
Turnover	2	595.7	563.6	594.8	561.0
Cost of sales		(271.2)	(238.7)	(271.3)	(238.2)
Net income		324.5	324.9	323.5	322.8
Operating expenses		(294.0)	(280.0)	(292.4)	(278.5)
Operating profit	3	30.5	44.9	31.1	44.3
Share of associate's income		–	–	–	–
Finance income	7	0.5	0.2	0.5	0.2
Finance expense	8	(1.0)	(1.1)	(1.0)	(1.1)
Profit before taxation		30.0	44.0	30.6	43.4
Taxation expense	9	0.2	(0.1)	–	–
Profit for the year		30.2	43.9	30.6	43.4
Dividend	10	(8.5)	(8.5)	(8.5)	(8.5)
Retained profit for the year		21.7	35.4	22.1	34.9
Other comprehensive income					
Net gain on revaluation of property, plant and equipment		0.2	8.3	0.2	8.3
Net gain on revaluation of available-for-sale investments		1.5	0.6	0.6	0.5
Net gain on revaluation of intangible assets		0.1	0.1	0.1	0.1
Total comprehensive income for the year		23.5	44.4	23.0	43.8

Statement of changes in taxpayers' equity for the year ended 31 March 2012

Group

	Note	Retained earnings £ million	Public dividend capital £ million	Revaluation surplus £ million	Total taxpayers' equity £ million	Total comprehensive income £ million
Balance at 1 April 2009		131.9	50.4	39.2	221.5	
Transfer to retained earnings				(1.1)	(1.1)	(1.1)
Surplus on revaluation of properties				3.2	3.2	3.2
(Deficit) on application of modified historic cost accounting to property, plant and equipment				(10.5)	(10.5)	(10.5)
Surplus on revaluation of non-current financial asset investments				0.5	0.5	0.5
Surplus on application of modified historic cost accounting to intangible assets				0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				(7.8)	(7.8)	(7.8)
Net profit for the period (<i>Restated – Note 25</i>)		21.1			21.1	21.1
Dividend		(4.0)			(4.0)	(4.0)
Transfer from revaluation surplus		1.1			1.1	
Modified historic cost accounting		(0.2)			(0.2)	
Balance at 31 March 2010		149.9	50.4	31.4	231.7	9.3
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	11			1.8	1.8	1.8
Surplus on application of modified historic cost accounting to property, plant and equipment	11			7.7	7.7	7.7
Surplus on revaluation of non-current financial asset investments	12			0.6	0.6	0.6
Surplus on application of modified historic cost accounting to intangible assets	13			0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				9.0	9.0	9.0
Net profit for the period (<i>Restated – Note 25</i>)		43.9			43.9	43.9
Dividend	10	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	11, 13	0.3			0.3	
Balance at 31 March 2011		186.8	50.4	40.4	277.6	44.4
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	11			1.1	1.1	1.1
Surplus on application of modified historic cost accounting to property, plant and equipment	11			0.3	0.3	0.3
Surplus on revaluation of non-current financial asset investments	12			1.5	1.5	1.5
Surplus on application of modified historic cost accounting to intangible assets	13			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	10	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	11, 13	0.1			0.1	
Balance at 31 March 2012		209.8	50.4	42.2	302.4	23.5

Statement of changes in taxpayers' equity for the year ended 31 March 2012

Trading Fund

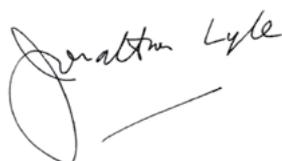
	Note	Retained earnings £ million	Public dividend capital £ million	Revaluation surplus £ million	Total taxpayers' equity £ million	Total comprehensive income £ million
Balance at 1 April 2009		133.7	50.4	38.1	222.2	
Transfer to retained earnings				(1.1)	(1.1)	(1.1)
Surplus on revaluation of properties				3.2	3.2	3.2
(Deficit) on application of modified historic cost accounting to property, plant and equipment				(10.5)	(10.5)	(10.5)
Surplus on revaluation of non-current financial asset investments				0.5	0.5	0.5
Surplus on application of modified historic cost accounting to intangible assets				0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				(7.8)	(7.8)	(7.8)
Net profit for the period (<i>Restated – Note 25</i>)		21.8			21.8	21.8
Dividend		(4.0)			(4.0)	(4.0)
Transfer from revaluation surplus		1.1			1.1	
Modified historic cost accounting		(0.2)			(0.2)	
Balance at 31 March 2010		152.4	50.4	30.3	233.1	10.0
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	11			1.8	1.8	1.8
Surplus on application of modified historic cost accounting to property, plant and equipment	11			7.7	7.7	7.7
Surplus on revaluation of non-current financial asset investments	12			0.5	0.5	0.5
Surplus on application of modified historic cost accounting to intangible assets	13			0.1	0.1	0.1
Net gains and losses recognised in the Statement of Comprehensive Income				8.9	8.9	8.9
Net profit for the period (<i>Restated – Note 25</i>)		43.4			43.4	43.4
Dividend	10	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	11, 13	0.3			0.3	
Balance at 31 March 2011		188.8	50.4	39.2	278.4	43.8
Transfer to retained earnings				(1.2)	(1.2)	(1.2)
Surplus on revaluation of properties	11			1.1	1.1	1.1
Surplus on application of modified historic cost accounting to property, plant and equipment	11			0.3	0.3	0.3
Surplus on revaluation of non-current financial asset investments	12			0.6	0.6	0.6
Surplus on application of modified historic cost accounting to intangible assets	13			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	10	(8.5)			(8.5)	(8.5)
Transfer from revaluation surplus		1.2			1.2	
Modified historic cost accounting	11, 13	0.1			0.1	
Balance at 31 March 2012		212.2	50.4	40.1	302.7	23.0

The notes on pages 54 to 75 form an integral part of these accounts.

Statement of Financial Position as at 31 March 2012

	Note 25	2012 Group £ million	2011 <i>Restated</i> Group £ million	2010 <i>Restated</i> Group £ million	2012 Group £ million	2011 <i>Restated</i> Trading Fund £ million	2010 <i>Restated</i> Trading Fund £ million
Assets							
Non-current assets							
Property, plant and equipment	11	210.5	213.8	206.2	210.5	213.8	206.2
Financial assets	12	5.4	3.9	3.3	3.0	2.4	1.9
Investment in associate	12	–	–	–	–	–	–
Intangible assets	13	3.9	3.3	2.6	3.9	3.3	2.6
Receivables	16	0.8	0.8	0.7	5.0	4.4	4.0
Total non-current assets		220.6	221.8	212.8	222.4	223.9	214.7
Current assets							
Work in progress	15	2.4	1.9	2.6	2.4	1.9	2.6
Receivables	16	191.9	166.9	128.1	191.4	166.8	127.9
Cash and cash equivalents	17	79.6	72.2	40.3	78.4	70.3	39.7
Total current assets		273.9	241.0	171.0	272.2	239.0	170.2
Total assets		494.5	462.8	383.8	494.6	462.9	384.9
Current liabilities							
Trade and other payables	18	166.6	154.5	116.4	166.4	153.8	116.1
Short-term provisions	19	0.7	2.0	3.1	0.7	2.0	3.1
Total current liabilities		167.3	156.5	119.5	167.1	155.8	119.2
Non-current assets plus net current assets		327.2	306.3	264.3	327.5	307.1	265.7
Non-current liabilities							
Other payables	18	22.6	25.9	29.2	22.6	25.9	29.2
Long-term provisions	19	2.2	2.8	3.4	2.2	2.8	3.4
Total non-current liabilities		24.8	28.7	32.6	24.8	28.7	32.6
Assets less liabilities		302.4	277.6	231.7	302.7	278.4	233.1
Taxpayers' equity							
Public dividend capital	24	50.4	50.4	50.4	50.4	50.4	50.4
Revaluation surplus		42.2	40.4	31.4	40.1	39.2	30.3
Retained earnings		209.8	186.8	149.9	212.2	188.8	152.4
Total taxpayers' equity		302.4	277.6	231.7	302.7	278.4	233.1

The financial statements were signed on 31 May 2012
The financial statements were authorised for issue on 1 June 2012*



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 2012

	Note 25	2012 Group £ million	2011 <i>Restated</i> Group £ million	2012 Trading Fund £ million	2011 <i>Restated</i> Trading Fund £ million
Cash flows from operating activities					
Net profit before taxation		30.0	44.0	30.6	43.4
Adjustment for:					
Depreciation	3, 11	13.3	11.5	13.3	11.5
Loss on sale of property, plant and equipment	3	–	0.1	–	0.1
(Profit) on sale of non-current financial asset investments	3, 12	–	(1.7)	–	–
Amortisation	3, 13	1.1	1.4	1.1	1.4
Operating profit before working capital changes		44.4	55.3	45.0	56.4
(Increase)/decrease in work in progress		(0.5)	0.7	(0.5)	0.7
(Increase) in receivables		(25.0)	(39.0)	(25.4)	(39.3)
Increase in payables		12.9	42.0	13.3	41.7
Use of provisions		(2.0)	(2.9)	(2.0)	(2.9)
Finance income		(0.5)	(0.2)	(0.5)	(0.2)
Finance expense		1.0	1.1	1.0	1.1
Net cash inflow from operating activities		30.3	57.0	30.9	57.5
Taxation paid		(0.1)	–	–	–
Cash flows from investing activities					
Purchases of property, plant and equipment		(9.6)	(16.1)	(9.6)	(16.1)
Proceeds from sale of non-current financial asset investments		–	1.9	–	–
Purchases of intangible assets		(0.9)	(2.0)	(0.9)	(2.0)
Repayment of loans made to other bodies		–	–	–	0.1
Finance income		0.5	0.2	0.5	0.2
Net cash used in investing activities		(10.0)	(16.0)	(10.0)	(17.8)
Cash flows from financing activities					
Repayment of loans from MOD		(3.2)	(3.2)	(3.2)	(3.2)
Interest paid on loans		(1.1)	(1.9)	(1.1)	(1.9)
Dividend paid		(8.5)	(4.0)	(8.5)	(4.0)
Net cash used from financing activities		(12.8)	(9.1)	(12.8)	(9.1)
Net increase in cash and cash equivalents		7.4	31.9	8.1	30.6
Brought forward cash and cash equivalents		72.2	40.3	70.3	39.7
Carried forward cash and cash equivalents	17	79.6	72.2	78.4	70.3

Notes to the Accounts

1 Accounting policies

(a) Statement of accounting policies

The financial statements have been prepared in accordance with the 2011/12 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 2012.

(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 include 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 11.

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

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

Land and buildings:

Porton Down –

Depreciated Replacement Cost (DRC)

Portsmouth West –

Existing Use Valuation (EUV), except for more specialised buildings that are valued on a DRC basis. The whole site will be valued on a DRC basis at its next professional independent valuation.

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: Gross Domestic Product Deflator 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 - 40 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 11.

(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) Government grants

During the year, the FReM was amended to reflect a change to the interpretation of IAS20: Government Grants. Consequently, the accounting policy relating to Government grants provided for a specific asset is to recognise the full grant as income on the date receipt is due. The change in accounting policy has been applied retrospectively. It has no effect on income for the current year. For the comparative year, other operating income has been increased by £3.6 million, representing the value of Government grants received during that year. The Government grant reserve has been transferred to retained earnings. The Statement of Comprehensive Income comparative and relevant notes has been restated for the previous year. The Statement of Financial Position, Statement of Changes in Taxpayers' Equity and relevant notes have been restated for the previous two years.

(m) 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 6.

(n) 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.

(o) 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.

(p) 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.

(q) 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.

(r) 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:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
MOD:	552.7	513.5	552.7	513.5
Research: external programme	137.9	116.4	137.9	116.4
Research: other	266.6	242.8	266.6	242.8
Non-research	148.2	154.3	148.2	154.3
Non-MOD:	43.0	50.1	42.1	47.5
Government departments	25.9	27.9	25.9	28.0
Non-Exchequer income	16.5	19.8	16.2	19.5
Non-Exchequer equity sales, royalty income and licensing income	0.6	2.4	–	–
Total	595.7	563.6	594.8	561.0

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):

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Depreciation charge for year:	13.3	11.5	13.3	11.5
Depreciation of owned property, plant and equipment	10.9	11.0	10.9	11.0
Exceptional costs of impairment of property, plant and equipment	2.5	1.7	2.5	1.7
Exceptional costs of reversal of impairment of property, plant and equipment	–	(2.0)	–	(2.0)
Adjustment valuation of property, plant and equipment	(0.1)	0.8	(0.1)	0.8
Amortisation charge for the year:	1.1	1.4	1.1	1.4
Amortisation of software licences	0.9	1.3	0.9	1.3
Adjustment valuation of software licences	0.2	0.1	0.2	0.1
Loss on disposal of owned property, plant and equipment	–	0.2	–	0.2
Profit on disposal of owned property, plant and equipment	–	(0.1)	–	(0.1)
Operating lease rentals:				
– property	4.1	4.1	4.1	4.1
– plant	0.1	0.1	0.1	0.1
Travel, subsistence and hospitality (excluding exceptional costs of i lab)	2.3	2.9	2.3	2.9
Foreign exchange losses	0.1	–	0.1	–
Auditor's remuneration and expenses*	0.1	0.1	0.1	0.1
Exceptional costs of i lab (see note 19 for further details)	3.3	2.8	3.3	2.8
Exceptional costs of Helios (see note 22 for further details)	0.9	–	0.9	–
Other operating income (2011 Restated – Note 25)	(5.4)	(9.5)	(5.9)	(10.3)

*During the year ending 31 March 2012, the Group did not contract any non-audit services from its external auditor, the National Audit Office (NAO). During the year ending 31 March 2011, the Group did not contract any non-audit services from the NAO.

4 Key corporate financial target

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

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

	Note 25	2012 Group £ million	2011 <i>Restated</i> Group £ million	2012 Trading Fund £ million	2011 <i>Restated</i> Trading Fund £ million
Profit on ordinary activities before interest and taxation		30.5	44.9	31.1	44.3
Public dividend capital		50.4	50.4	50.4	50.4
Long-term loan		22.5	25.8	22.5	25.8
Reserves		252.0	227.2	252.3	228.0
Capital employed at year end		324.9	303.4	325.2	304.2
Average capital employed during the year		314.2	282.1	314.7	283.2
ROCE		9.7%	15.9%	9.9%	15.6%

The average ROCE for the period 1 April 2009 to 31 March 2012 is:

	1 April 2009		31 March 2012	
	Group £ million	Trading Fund £ million	Group £ million	Trading Fund £ million
Average profit on ordinary activities before interest and taxation for the three years to 31 March 2012			32.5	32.8
Public dividend capital	50.4	50.4	50.4	50.4
Long-term loan	21.5	21.5	22.5	22.5
Reserves	171.1	171.8	252.0	252.3
Total capital employed	243.0	243.7	324.9	325.2
Average capital employed during the period			284.0	284.5
ROCE			11.4%	11.5%

5 Trading Fund Board members' emoluments

Details of members' emoluments are shown in the Remuneration Report.

They are summarised as follows:

	2012 £'000	2011 £'000
Salaries, NCPAs and fees	1,032.5	1,172.1

6 Employee information

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

	2012 Group Number	2011 Group Number	2012 Trading Fund Number	2011 Trading Fund Number
Professional and technical staff	2,906	2,969	2,894	2,957
Administrative and industrial staff	631	618	628	615
Secondees	84	117	84	117
Agency and contract staff	146	103	146	98
Total	3,767	3,807	3,752	3,787

During 2011/12, Dstl implemented a position management approach within its HR systems, improving the consistency with which ONS employee classifications are applied. In order to provide a consistent basis for comparison, this methodology has been retrospectively applied to the 2010/11 employee values.

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

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Wages and salaries	135.0	134.7	134.4	134.0
Social security costs	11.6	11.0	11.5	10.9
Other pension costs	24.8	24.7	24.7	24.6
Agency and contract staff	18.7	16.7	18.7	16.6
Total	190.1	187.1	189.3	186.1

During the year, £0.2 million staff costs were capitalised (2010/11: £0.1 million).

The employees of the Trading Fund are eligible to be members of the Principal Civil Service Pension Scheme (PCSPS), which is a final salary scheme. 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). For 2011/12, normal employers' contributions of £24.7 million were payable to the PCSPS (2010/11: £24.6 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 usually 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 2011/12 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 £174,449 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 £12,030, 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 2012 were £15,074. There were no prepaid contributions at that date.

Three people retired early on ill-health grounds; the total additional accrued pension liabilities in the year amounted to £2,278 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	3 (0)	1 (0)	4 (0)
£10,000 - £25,000	2 (0)	3 (1)	5 (1)
£25,000 - £50,000	1 (0)	3 (2)	4 (2)
£50,000 - £100,000	0 (1)	4 (5)	4 (6)
£100,000 - £150,000	0 (0)	1 (2)	1 (2)
£150,000 - £200,000	0 (0)	0 (0)	0 (0)
More than £200,000	0 (0)	0 (0)	0 (0)
Total number of exit packages	6 (1)	12 (10)	18 (11)
Total cost of exit packages (£)	71,577 (66,187)	625,396 (650,385)	696,973 (716,572)

7 Finance income

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Interest received and receivable from bank accounts and short-term deposits	0.5	0.2	0.5	0.2
Total	0.5	0.2	0.5	0.2

8 Finance expense

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Interest paid and payable on loans	1.1	0.8	1.1	0.8
Financial instrument remeasurements	(0.1)	0.3	(0.1)	0.3
Total	1.0	1.1	1.0	1.1

There were no payments made under the Late Payments of Commercial Debts (Interest) Act 1998 (2010/11: £58).

9 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 Innovations Limited 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:

	2012 Group £ million	2011 Group £ million
Current tax:		
UK corporation tax	(0.2)	0.1
The tax assessed for the year is lower than the standard rate of corporation tax in the UK. The difference is explained below:		
	2012 £ million	2011 £ million
Group profit on ordinary activities before tax	30.0	44.0
Less Trading Fund profit (exempt) and consolidation adjustments on ordinary activities before tax	(30.6)	(43.4)
Profit/(loss) on ordinary activities before tax	(0.6)	0.6
Profit/(loss) on ordinary activities multiplied by the standard rate of corporation tax in the UK of 28 per cent (2010/11: 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)	–
Profit on disposal of investments in advance of base cost	–	(0.1)
Unutilised trading losses carried forward	0.1	–
Current tax (credit)/charge	(0.2)	0.1

Ploughshare Innovations Limited has unutilised gross trading losses carried forward of £3.7 million (2010/11: £3.5 million). No provisions for deferred tax have been made.

10 Dividends

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Ordinary dividend payable	8.5	8.5	8.5	8.5
Total	8.5	8.5	8.5	8.5

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

11 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
Valuations and gross modified historic cost:							
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)
Balance at 31 March 2012	27.1	163.7	0.1	84.8	8.1	8.7	292.5

Depreciation:

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
Balance at 31 March 2012	–	(28.2)	(0.1)	(48.5)	(5.2)	–	(82.0)

Net modified historic cost:

Balance at 31 March 2012	27.1	135.5	–	36.3	2.9	8.7	210.5
Balance at 1 April 2011	27.6	140.3	–	26.2	2.9	16.8	213.8

Land and buildings are subject to a quinquennial revaluation by an independent, professional valuer in accordance with IAS16: Property, Plant and Equipment. Land at Pyestock is valued annually. The latest valuation was carried out as at 31 January 2012 on a Market Value basis by Knight Frank LLP, Chartered Surveyors. Portsdown Main is valued annually. The latest valuation was carried out as at 31 January 2012 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 land and building assets at Portsdown West were revalued as at 31 March 2008. The published figures for land and buildings include:

- a professional external valuation of the land at Pyestock as at 31 January 2012
- a professional external valuation of Portsdown Main as at 31 January 2012
- a professional external valuation of the land and building assets at Portsdown West as at 31 March 2008
- 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 £1.3 million. The basis of the valuation for Porton Down was Market Value using the DRC method. The basis of the valuation for Portsdown West was the EUV method but, where there are buildings of a specialist design and purpose, the DRC method was applied. Due to the new and extensive specialised building construction at the Portsdown West site, and due to the size and location of the site, the independent valuers have stated that valuation on a DRC basis would be appropriate for the next valuation (due 31 March 2013).

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. Three 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. Capacity support capped at underlying level of £2.7 million to exclude effluent plant	23	3.5	10.5	25	2.6
2. Capacity support increased by £0.4 million from 1 April 2012	23	3.5	12.6	50	6.3
3. Decline of capacity support by £0.2 million per annum from 1 April 2015	23	3.5	6	25	1.5
					<u>10.4</u>

The business-in-use valuation extended over a period of 23 years, and cash flows were discounted at a rate of return of 3.5 per cent.

The impairment is disclosed as £1.2 million for plant and machinery.



The comparatives for the year ended 31 March 2011 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
Valuations and gross modified historic cost:							
Balance at 1 April 2010	22.3	134.9	0.1	70.2	8.5	37.5	273.5
Additions	–	–	–	0.3	–	9.1	9.4
Disposals	–	(0.5)	–	(3.4)	(0.3)	–	(4.2)
Transfers	0.5	25.5	–	3.3	0.5	(29.8)	–
Downward revaluation	–	–	–	–	(0.8)	–	(0.8)
Revaluations	4.8	4.2	–	2.4	–	–	11.4
Balance at 31 March 2011	27.6	164.1	0.1	72.8	7.9	16.8	289.3
Depreciation:							
Balance at 1 April 2010	–	(18.6)	(0.1)	(44.9)	(3.7)	–	(67.3)
Charge for year:							
historical	–	(5.9)	–	(3.3)	(1.8)	–	(11.0)
supplementary	–	(0.1)	–	(1.4)	–	–	(1.5)
downward revaluation	–	–	–	–	0.2	–	0.2
impairment	–	(1.0)	–	(0.3)	–	–	(1.3)
Disposals	–	0.6	–	3.3	0.3	–	4.2
Revaluations	–	1.2	–	–	–	–	1.2
Balance at 31 March 2011	–	(23.8)	(0.1)	(46.6)	(5.0)	–	(75.5)
Net modified historic cost:							
Balance at 31 March 2011	27.6	140.3	–	26.2	2.9	16.8	213.8
Balance at 1 April 2010	22.3	116.3	–	25.3	4.8	37.5	206.2

12 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
Cost or valuation:					
Balance at 1 April 2011	–	2.4	2.4	3.9	3.9
Revaluations	–	0.6	0.6	1.5	1.5
Balance at 31 March 2012	–	3.0	3.0	5.4	5.4

A valuation of the available-for-sale investments has been performed by Ploughshare Innovations Limited (Ploughshare). These valuations have been adopted by the Board, and have been incorporated into the Group accounts on consolidation of the subsidiary undertaking. For previous periods, valuations were performed by an independent professional following the British Venture Capital Association (BVCA) Guidelines. Ploughshare's approach to derive fair value 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, Ploughshare acquired an additional 100 ordinary shares in SALT for a consideration of £19,500.

Enigma remains as the only available-for-sale investment where the Trading Fund has some direct ownership of beneficial interests. The investment has been valued by Ploughshare, and has been adopted by the Board.

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
Subsidiary										
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
Available-for-sale investment										
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 have been used because audited accounts were not available.

Associate										
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.

The comparatives for the year ended 31 March 2011 are:

	Trading Fund subsidiary undertaking £ million	Trading Fund investment and associate £ million	Trading Fund Total £ million	Group investments and associate £ million	Group Total £ million
Cost or valuation:					
Balance at 1 April 2010	–	1.9	1.9	3.3	3.3
Disposals	–	–	–	(0.5)	(0.5)
Revaluations	–	0.5	0.5	1.1	1.1
Balance at 31 March 2011	–	2.4	2.4	3.9	3.9

Further details of the subsidiary, joint venture and associate owned directly by the Trading Fund as at 31 March 2011 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
Subsidiary										
Ploughshare Innovations Limited	Great Britain	100.0%	Ordinary of £1	31 March 2011	2.9	0.5	3.2	4.2	(1.0)	Technology transfer management
Available-for-sale investment										
Enigma Diagnostics Limited	Great Britain	7.1%	Ordinary of 10p/ Preferred ordinary of 1p	30 April 2010	0.2	(18.1)	9.7	1.8	7.9	Research and development

Management accounts for 11 months to 31 March 2011, adjusted for 12 months, have been used because audited accounts were not available.

Associate										
Tetricus Limited	Great Britain	33.3%	Ordinary C of £1	31 March 2011	0.3	–	0.4	0.1	0.3	Business support to biotechnology start ups

Management accounts for 12 months to the year ended 31 March 2011 have been used because audited accounts were not available.

13 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
Gross modified historic cost:			
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
Balance at 31 March 2012	5.3	0.7	6.0
Amortisation:			
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
Balance at 31 March 2012	(2.1)	–	(2.1)
Net modified historic cost:			
Balance at 31 March 2012	3.2	0.7	3.9
Balance at 1 April 2011	3.0	0.3	3.3

The comparatives for the year ended 31 March 2011 are:

	Purchased software licences £ million	Software assets under construction £ million	Total £ million
Gross modified historic cost:			
Balance at 1 April 2010	3.7	0.7	4.4
Additions	0.5	1.4	1.9
Transfers	1.8	(1.8)	–
Revaluations	0.3	–	0.3
Balance at 31 March 2011	6.3	0.3	6.6
Amortisation:			
Balance at 1 April 2010	(1.8)	–	(1.8)
Charge for year:			
historical	(1.3)	–	(1.3)
supplementary	(0.2)	–	(0.2)
Balance at 31 March 2011	(3.3)	–	(3.3)
Net modified historic cost:			
Balance at 31 March 2011	3.0	0.3	3.3
Balance at 1 April 2010	1.9	0.7	2.6

14 Impairments

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

Group	Note	2012	2011	2012	2011
		Profit or Loss £ million	Profit or Loss £ million	Other Comprehensive Income £ million	Other Comprehensive Income £ million
Investment in Subsea Asset Location Technologies Limited	12	–	–	–	0.3
Investment in Claresys Limited	12	–	–	–	0.1
Portsmouth Main site	11	1.3	(2.0)	–	–
Biological High Containment Facility	11	1.2	1.3	–	–
Buildings (including MHCA*)	11	–	0.3	1.9	0.1
Plant and machinery (MHCA)	11	–	–	0.3	–
Computer equipment (MHCA)	11	–	0.6	–	–
Total		2.5	0.2	2.2	0.5

Trading Fund	Note	2012	2011	2012	2011
		Profit or Loss £ million	Profit or Loss £ million	Other Comprehensive Income £ million	Other Comprehensive Income £ million
Portsmouth Main site	11	1.3	(2.0)	–	–
Biological High Containment Facility	11	1.2	1.3	–	–
Buildings (including MHCA)	11	–	0.3	1.9	0.1
Plant and machinery (MHCA)	11	–	–	0.3	–
Computer equipment (MHCA)	11	–	0.6	–	–
Total		2.5	0.2	2.2	0.1

*Modified Historic Cost Accounting

15 Work in progress

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Central Government bodies	2.0	1.6	2.0	1.6
Non-public sector organisations	0.4	0.3	0.4	0.3
Total	2.4	1.9	2.4	1.9

16 Trade receivables and other current assets

Amounts falling due within one year:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Trade receivables	24.1	23.5	23.7	23.4
Central Government bodies	21.0	21.0	21.1	21.0
Non-public sector organisations	3.1	2.5	2.6	2.4
Amounts recoverable under contracts	163.3	139.6	163.3	139.6
Central Government bodies	162.4	138.5	162.4	138.5
Non-public sector organisations	0.9	1.1	0.9	1.1
Deposits and advances – staff receivables	0.2	0.2	0.2	0.2
Other receivables – central Government bodies	0.4	0.5	0.4	0.5
Taxation	0.1	–	–	–
Prepayments and accrued income	3.8	3.1	3.8	3.1
Local authorities	0.3	0.3	0.3	0.3
Non-public sector organisations	3.5	2.8	3.5	2.8
Total	191.9	166.9	191.4	166.8

Amounts falling due after more than one year:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Deposits and advances – staff receivables	0.8	0.8	0.8	0.8
Other receivables – central Government bodies	–	–	4.2	3.6
Total	0.8	0.8	5.0	4.4

Within the Trading Fund's other receivables falling due after more than one year is a current account with Ploughshare Innovations Limited of £4.2 million (2010/11: £3.6 million). The balance on this account represents amounts due for services provided. There is no intention to demand payment during the next year.

17 Cash and cash equivalents

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Balance brought forward	72.2	40.3	70.3	39.7
Net change in cash and cash equivalent balances	7.4	31.9	8.1	30.6
Balance carried forward	79.6	72.2	78.4	70.3

The following balances were held at:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Commercial banks – cash	2.2	5.3	1.0	3.4
Commercial banks – short-term investments	67.4	12.0	67.4	12.0
Debt Management Office – short-term investments	10.0	54.9	10.0	54.9
Balance carried forward	79.6	72.2	78.4	70.3

18 Trade payables and other liabilities

Amounts falling due within one year:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Current part of long-term loan payable to MOD	3.2	3.2	3.2	3.2
VAT	2.9	8.9	2.9	8.9
Other taxation and social security	5.3	5.3	5.3	5.2
Payments received on account	9.8	16.3	9.8	16.3
Central Government bodies	7.1	12.7	7.1	12.7
Non-public sector organisations	2.7	3.6	2.7	3.6
Trade payables	53.7	23.3	53.7	23.2
Central Government bodies	1.3	0.2	1.3	0.2
Trading funds	–	0.2	–	0.2
Non-public sector organisations	52.4	22.9	52.4	22.8
Other payables	4.3	4.7	4.3	4.7
Central Government bodies	4.0	4.6	4.0	4.6
Non-public sector organisations	0.3	0.1	0.3	0.1
Pay and expenses – staff payables	3.5	3.5	3.5	3.5
Accruals and deferred income	75.4	80.8	75.2	80.3
Central Government bodies	2.8	4.3	2.8	4.2
NHS Trusts	0.1	–	0.1	–
Local authorities	0.7	0.5	0.7	0.5
Non-public sector organisations	71.8	76.0	71.6	75.6
Dividend	8.5	8.5	8.5	8.5
Total	166.6	154.5	166.4	153.8

Amounts falling due after more than one year:

	2012 Group £ million	2011 Group £ million	2012 Trading Fund £ million	2011 Trading Fund £ million
Non-current part of long-term loan payment to MOD	22.5	25.8	22.5	25.8
Accruals and deferred income – non-public sector organisations	0.1	0.1	0.1	0.1
Total	22.6	25.9	22.6	25.9

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

19 Provisions for liabilities and charges

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)
Balance at 31 March 2012	1.4	1.1	0.4	2.9

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	–	–	–	–
Balance at 31 March 2012	1.4	1.1	0.4	2.9

No amounts are expected to be called after 1 April 2024 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

Onerous contracts exist where the Trading Fund had provided guaranteed selling prices for the homes of qualifying employees who are relocating due to a change in their permanent place of work. Due to market conditions, selling prices were falling short of their guaranteed price. The brought forward provision has been part utilised and part released. In prior years, the Trading Fund withdrew from the Farnborough and Malvern sites, resulting in redundancies for some non-mobile staff. The remaining provision is not expected to be fully utilised until the year ending 31 March 2020.

Onerous contracts

Provisions for onerous contracts are recognised where unavoidable costs of meeting lease obligations exceed the economic benefits expected to be received under the lease. The Trading Fund has withdrawn from a site at Winfrith. Under the terms of an operating lease, there was a legal obligation to continue rental and service charge payments until 14 July 2011. The obligation was settled in full during the year.

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. A legal obligation arose during the previous year as a result of the cancellation of a contract. Penalties were paid during the year in full settlement of the obligation.

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), formerly the People, Pay and Pensions Agency (PPPA).

The comparatives for the year ended 31 March 2011 are:

Group and Trading Fund

	i lab provisions £ million	Onerous contracts £ million	Contractual disputes £ million	Early departure costs £ million	Total £ million
Balance at 1 April 2010	2.8	1.5	0.1	0.9	5.3
Provided in the year	0.1	1.2	–	0.7	2.0
Provisions not required written-back	(0.4)	(0.2)	–	–	(0.6)
Provisions utilised in the year	(0.7)	(0.3)	(0.1)	(0.8)	(1.9)
Balance at 31 March 2011	1.8	2.2	–	0.8	4.8

Analysis of expected timing of cash flows:

	i lab provisions £ million	Onerous contracts £ million	Contractual disputes £ million	Early departure costs £ million	Total £ million
Between 1 April 2011 and 31 March 2012	0.5	1.2	–	0.3	2.0
Between 1 April 2012 and 31 March 2013	0.3	–	–	0.3	0.6
Between 1 April 2013 and 31 March 2018	1.0	–	–	0.2	1.2
Between 1 April 2018 and 31 March 2023	–	1.0	–	–	1.0
From 1 April 2023 thereafter	–	–	–	–	–
Balance at 31 March 2011	1.8	2.2	–	0.8	4.8

No amounts are expected to be called after 1 April 2023, and therefore no further analysis is necessary for amounts after this date.

20 Long-term loans

	2012 Group and Trading Fund £ million	2011 Group and Trading Fund £ million
Balance brought forward	29.0	32.2
Repayment of loan	(3.2)	(3.2)
Balance carried forward	25.8	29.0

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.

	2012 Group and Trading Fund £ million	2011 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	9.7	12.9
Total	25.8	29.0

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

	2012 Group and Trading Fund £ million	2011 Group and Trading Fund £ million
Balance brought forward	29.3	33.2
Repayment of principal	(3.2)	(3.2)
Movement in finance charge	(0.1)	(0.7)
Balance carried forward	26.0	29.3

21 Commitments under leases

Operating leases

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

	2012 Group and Trading Fund £ million	2011 Group and Trading Fund £ million
Property:		
Due within one year	4.1	4.2
Due after one year but within five years	15.1	15.2
Total	19.2	19.4

Plant and equipment:

Due within one year	0.1	0.1
Total	0.1	0.1

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.

22 Capital commitments

	2012 Group and Trading Fund £ million	2011 Group and Trading Fund £ million
Property, plant and equipment:		
Capital expenditure that has been contracted for but has not been provided for in the accounts	5.8	8.5
Capital expenditure that has been authorised but has not been provided for in the accounts	63.1	6.1
Intangible assets:		
Capital expenditure that has been contracted for but has not been provided for in the accounts	0.1	–
Capital expenditure that has been authorised but has not been provided for in the accounts	0.1	–

The Trading Fund has obtained Ministerial approval for a site rationalisation programme (known as Helios), which 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 £52.1 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.

23 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 20.

Equity holdings of the Group are classified as available-for-sale investments and are disclosed in Note 12.

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 7 and 8.

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	53.7	–	–	–	–	–
Other payables:						
Staff/payroll payables	3.5	–	–	–	–	–
Taxation and social security	8.2	–	–	–	–	–
Payments on account	9.8	–	–	–	–	–
Other	4.3	–	–	–	–	–
Accruals and deferred income	75.4	0.1	–	–	–	–
Provisions	0.7	0.4	0.3	0.2	0.1	1.2
Loan provided by MOD:						
Principal	3.2	3.2	3.2	3.2	3.2	9.7
Dividend	8.5	–	–	–	–	–
Total financial liabilities	167.3	3.7	3.5	3.4	3.3	10.9

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	2.4	–	–	–	–	–
Trade receivables	24.1	–	–	–	–	–
Amounts recoverable under contract	163.3	–	–	–	–	–
Prepayments	3.8	–	–	–	–	–
Other receivables:						
Staff receivables	0.2	0.1	0.1	0.1	0.1	0.4
Other	0.4	–	–	–	–	–
Taxation	0.1	–	–	–	–	–
Total financial assets	194.3	0.1	0.1	0.1	0.1	0.4

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 2012, the Group's exposure to currency exchange movements, denominated in sterling, is:

	US Dollar £'000	Euro £'000
Assets	1,943.8	305.2
Liabilities	289.9	486.6

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 2012, the Group's investments at fixed rates are:

Counterparty	Maturity date	Amount invested £ million	Rate %
Lloyds TSB Bank	2 April 2012	9.4	0.30
Debt Management Office	5 April 2012	10.0	0.25
Lloyds TSB Bank	13 April 2012	10.0	0.60
Lloyds TSB Bank	20 April 2012	3.0	0.65
Lloyds TSB Bank	20 April 2012	8.0	0.59
Lloyds TSB Bank	27 April 2012	5.0	0.60
Lloyds TSB Bank	30 April 2012	8.0	0.70
Lloyds TSB Bank	4 May 2012	8.0	0.72
Lloyds TSB Bank	4 May 2012	8.0	0.71
Lloyds TSB Bank	4 May 2012	8.0	1.16

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
5,751.7	616.7	26.8	3.6	4.5

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		24.1
Amounts recoverable under contract		163.3
Other receivables:		
Other	0.4	
Taxation	0.1	
Staff loans, advances and imprests	1.0	
		1.5
Cash and cash equivalents:		
Cash at bank – Lloyds TSB Bank	1.0	
Cash at bank – HSBC Bank	1.2	
Short-term investments – Lloyds TSB Bank	67.4	
Short-term investments – Debt Management Office	10.0	
		79.6
Maximum exposure to credit risk		268.5

The amount quoted above is the technical maximum, quantitative exposure but within this £173.5 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.

24 Public dividend capital

Group and Trading Fund

The FReM interprets public dividend capital as equity.

	2012 £ million	2011 £ million
Balance brought forward	50.4	50.4
Balance carried forward	50.4	50.4

25 Prior period adjustments – Government grants

Group and Trading Fund

The following Government grants were transferred to retained earnings:

	2012 £ million	2011 £ million	2010 £ million
Government grant received from:			
Department of Energy and Climate Change	–	–	1.3
Department for Transport	–	0.8	–
Government Communications Planning Directorate	–	2.8	–
Total	–	3.6	1.3

During the year, the FReM was amended to reflect a change to the interpretation of IAS20: Government Grants. Consequently, the accounting policy relating to Government grants provided for a specific asset is to recognise the full grant as income on the date receipt is due. The change in accounting policy has been applied retrospectively. It has no effect on income for the current year. For the comparative year, other operating income has been increased by £3.6 million, representing the value of Government grants received during that year. The Government grant reserve has been transferred to retained earnings. The Statement of Comprehensive Income comparative and relevant notes has been restated for the previous year. The Statement of Financial Position, Statement of Changes in Taxpayers' Equity and relevant notes has been restated for the previous two years.

26 Losses and special payments

During the year ended 31 March 2011, there was potentially a loss exceeding £250,000 resulting from cancellation of a contract. An assessment of the contract terms had determined that penalties applied but final settlement of £572,112 was not reached until the year ending 31 March 2012. This had no net effect on the Trading Fund because the cost was recovered from MOD.

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:

	2012 £'000	2011 £'000
Sales	552,746.4	513,459.9
Purchases	22,954.5	23,841.8
Receivables	173,538.7	151,768.1
Payables	8,174.8	12,453.2

An ordinary dividend of £8.5 million, payable to MOD, was agreed. Interest paid and payable on the loans totalled £1.0 million, measured at amortised cost using the effective interest rate method. Repayments of the principal during the year totalled £3.2 million. Final repayment is due on 31 March 2020. See Note 20.

Ploughshare Innovations Limited

Ploughshare Innovations Limited (Ploughshare) is a wholly owned subsidiary undertaking of the Trading Fund. Details are provided in Note 12.

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:

	2012 £'000	2011 £'000
Sales and other operating income	527.2	821.2
Purchases and expenses	113.3	188.8
Receivables	4,215.2	3,545.9
Payables	–	7.6

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 investments has remained with the subsidiary undertaking during the current reporting year. The Trading Fund's holdings in its available-for-sale investment with Enigma Diagnostics Limited (Enigma) remain with the parent body. Ploughshare has its own investment in Enigma.

Available-for-sale investments and associate

Details of the available-for-sale investments and the associate Tetricus Limited, are provided in Note 12. During the year, the following trading occurred with these entities, which was carried out under standard contract terms:

	Sales		Purchases		Receivables		Payables	
	2012 £'000	2011 £'000	2012 £'000	2011 £'000	2012 £'000	2011 £'000	2012 £'000	2011 £'000
Claresys Limited	25.2	–	–	–	49.5	19.4	–	–
Enigma Diagnostics Limited	41.7	4.1	21.9	12.4	23.5	0.9	26.3	–
Esroe Limited	19.3	6.1	–	15.6	–	–	–	–
P2i Limited	19.5	18.2	–	–	6.1	2.6	–	–
ProKyma Limited	–	–	47.0	–	–	–	–	–
Remo Technologies Limited	–	–	12.9	5.7	–	–	–	–
Subsea Asset Location Technologies Limited	16.4	49.1	0.1	–	–	52.1	–	–
Tetricus Limited	103.5	87.2	–	–	–	–	–	–

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	
	2012 £'000	2011 £'000	2012 £'000	2011 £'000	2012 £'000	2011 £'000	2012 £'000	2011 £'000
British National Space Centre	288.4	–	–	–	69.9	–	0.4	–
Cabinet Office (excluding PCSPS)	0.2	0.1	157.9	–	6.7	9.9	157.9	–
Department for Energy and Climate Change	60.7	–	–	–	–	–	–	–
Department for the Environment, Food and Rural Affairs	230.3	183.3	321.4	44.7	110.5	–	171.9	0.8
Department for Business, Innovation and Skills	106.0	69.8	–	–	–	0.2	–	–
Department for Transport	2,425.4	2,528.8	–	–	978.5	1,051.7	–	145.2
Drinking Water Inspectorate	21.0	157.1	–	–	–	–	–	–
Engineering and Physical Sciences Research Council	–	–	3,623.8	413.8	–	–	139.8	112.0
Food Standards Agency	3.5	150.7	–	–	–	74.1	–	0.2
Foreign and Commonwealth Office	87.3	36.8	9.6	1.0	28.0	–	1.7	–
Government Communications Bureau	7,012.2	5,816.4	333.4	320.7	2,764.7	2,841.1	712.1	807.0
Government Communications Centre	48.0	22.3	401.4	151.1	38.5	41.0	7.2	–
Health and Safety Executive	9.3	–	2.5	2.0	–	–	1.9	0.3
Health and Safety Laboratory	–	–	76.1	77.2	–	–	–	69.4
Health Protection Agency	706.6	1,354.2	155.1	244.2	119.5	384.0	11.4	109.2
Home Office	13,128.5	14,939.3	158.4	69.6	4,634.0	2,647.3	573.4	1,200.8
National School of Government	–	–	75.9	33.6	–	–	5.1	–
Northern Ireland Department of Justice	305.4	88.4	–	–	–	–	606.1	911.6
Technology Strategy Board	104.8	525.7	1,260.6	1,000.0	11.9	122.4	276.6	1,000.0
UK Border Agency	–	19.9	–	–	–	–	–	–
Cabinet Office – PCSPS	–	–	28,726.4	28,452.1	–	–	3,425.5	3,368.8
HM Revenue and Customs:								
Employer's and Employees' Income Tax and National Insurance	–	–	46,281.2	45,737.8	–	–	5,513.3	5,400.2
VAT	–	–	45,727.9	41,307.7	–	–	2,910.1	8,898.9

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

It was disclosed in the previous reporting period that some uncertainty had arisen concerning the deliverables of a milestone sub-contract with a value of £4.1 million, against which the Group had generated turnover of £4.5 million. There were concerns that the output did not meet the requirements set out in the contract. Work continued during the current year to recover some value. It is now considered remote that a liability will crystallise.

29 Events after the reporting period

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 2012:

Operating segment	Revenue (internal and external) £ million	Depreciation £ million	Amortisation £ million	Impairments through profit or loss £ million	Impairments through 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)
Total as per financial statements	595.7	13.3	1.1	2.5	2.2	0.5	1.0	21.7	9.7	494.5	192.1

Operating segment analysis for the year ended 31 March 2011 (*Restated – Note 25*):

Operating segment	Revenue (internal and external) £ million	Depreciation £ million	Amortisation £ million	Impairments through profit or loss £ million	Impairments through 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	41.5	–	–	–	–	–	–	4.6	–	9.7	4.4
Biomedical Sciences	39.4	0.1	–	–	–	–	–	3.7	0.2	8.5	7.3
Detection	48.3	0.1	–	–	–	–	–	6.1	0.4	13.8	9.6
Environmental Sciences	19.4	0.3	–	–	–	–	–	(0.4)	0.3	3.8	1.0
Information Management	27.8	–	–	–	–	–	–	1.6	–	4.2	1.1
Joint Systems	13.6	–	–	–	–	–	–	1.0	–	3.5	2.2
Land Battlespace Systems	36.2	–	–	–	–	–	–	3.5	–	5.6	2.6
Naval Systems	30.5	0.2	–	–	–	–	–	3.3	–	4.8	1.8
Physical Sciences	41.7	0.1	–	–	–	–	–	4.2	0.5	12.9	7.0
Policy and Capability Studies	34.0	–	–	–	–	–	–	5.6	–	3.7	1.2
Programme Office	162.5	–	–	–	–	–	–	1.5	–	62.5	48.9
Security Sciences	86.8	0.5	–	–	–	–	–	7.8	2.0	28.0	13.3
Sensors and Countermeasures	46.5	0.2	–	–	–	–	–	2.8	0.6	13.2	8.7
Corporate	12.3	10.0	1.4	0.2	1.9	0.2	1.1	(10.4)	7.3	288.7	75.4
Ploughshare Innovations	2.9	–	–	–	0.4	–	–	0.5	–	3.5	4.2
Internal trading group consolidation adjustments	(79.8)	–	–	–	–	–	–	–	–	(3.6)	(3.5)
Total as per financial statements	563.6	11.5	1.4	0.2	2.3	0.2	1.1	35.4	11.3	462.8	185.2

Operating segment analysis for the year ended 31 March 2010 (*Restated – Note 25*):

Operating segment	Revenue (internal and external) £ million	Depreciation £ million	Amortisation £ million	Impairments through profit or loss £ million	Impairments through 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	–	–	–	–	–	–	3.7	–	9.7	4.0
Biomedical Sciences	44.0	0.1	–	–	–	–	–	3.5	0.3	8.0	6.3
Detection	41.5	0.1	–	–	–	–	–	5.1	–	13.3	6.0
Environmental Sciences	19.8	0.4	–	–	–	–	–	(0.4)	–	2.9	0.8
Information Management	22.7	0.1	–	–	–	–	–	1.5	–	3.0	0.7
Joint Systems	11.3	–	–	–	–	–	–	0.8	–	2.6	1.2
Land Battlespace Systems	32.5	–	–	–	–	–	–	2.8	–	5.2	1.4
Naval Systems	32.2	0.1	–	–	–	–	–	1.9	0.8	6.9	2.5
Physical Sciences	37.1	0.1	–	–	–	–	–	3.5	0.4	11.6	5.0
Policy and Capability Studies	31.0	–	–	–	–	–	–	3.3	–	5.1	1.9
Programme Office	58.0	–	–	–	–	–	–	0.9	–	24.1	12.5
Security Sciences	88.8	0.5	–	–	–	–	–	8.3	0.3	33.2	15.8
Sensors and Countermeasures	36.7	0.2	–	–	–	–	–	3.5	0.5	7.7	3.5
Corporate	12.1	10.5	1.2	1.4	12.8	0.1	1.2	(20.6)	28.5	251.6	90.2
Ploughshare Innovations	1.4	–	–	–	0.4	–	–	(0.7)	–	2.3	3.7
Internal trading group consolidation adjustments	(77.7)	–	–	–	–	–	–	–	–	(3.4)	(3.4)
Total as per financial statements	435.3	12.1	1.2	1.4	13.2	0.1	1.2	17.1	30.8	383.8	152.1



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 MOD Chief Scientific Adviser's 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 Innovations Limited 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 and joint venture initiatives.

Dstl Sustainability Report for the year ended 31 March 2012

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, particularly in the areas of waste and energy efficiency. The organisation already exceeds key Government and MOD targets in some areas, such as waste recycling. Dstl actively encourages sustainable working and has undertaken a range of green commuter 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 Committee). 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		2008/09	2009/10	2010/11	2011/12	Graphical Analysis
Non-financial indicators tonnes of carbon dioxide emissions (tCO2e)	Gross emissions for scopes 1 and 2 energy (Notes 3 - 5)					
	Oil	8,763	6,431	6,849	7,127	
	Electric	25,565	26,747	27,219	26,392	
	Gas	10,022	9,392	10,664	8,481	
	LPG				100	
	Fugitive Gases	232	69	102	117	
	Total gross emissions for scopes 1 and 2 energy	44,582	42,639	44,834	42,217	
	Gross emissions scope 3 business travel (Notes 6 - 7)	4,626	4,639	3,731	4,397	
	Total gross emissions for scopes 1, 2 and 3	49,208	47,278	48,565	46,614	
	Net emissions for scopes 1 and 2 energy	44,582	42,639	44,835	42,216	
Net emissions for scope 3 business travel	4,626	4,639	3,731	4,397		
Financial indicators (£'000)	Expenditure on energy (Note 8)	£7,643	£5,212	£6,391	£7,144	
	Expenditure on official business travel (Note 6)	£10,810	£8,734	£7,155	£7,621	
	Total expenditure on energy and business travel	£18,453	£13,946	£13,546	£14,765	

Targets and narrative

Having largely achieved the previous 2010/11 SOGE (Sustainable Operations on the Government Estate) targets, Dstl is now 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. Dstl's 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. Dstl's Carbon Reduction Strategy is helping to deliver further reductions. It is focused around three core activities: (i) improved energy management (ii) maximising site occupation and making more efficient use of buildings and (iii) strategic investments (eg renewable energy). Dstl is about to commence a further site rationalisation programme and will be adopting a flexible deskling strategy for all new buildings (and a large percentage of the legacy estate), to ensure greater energy efficiency per head in the future.

Direct impact commentary

The main direct impacts for Dstl are electricity usage and business travel. Dstl's specialist lab work inherently requires a certain level of electric consumption, with substantial national and international business travel also required to support operations. The new Carbon Reduction Strategy is helping Dstl to balance its business commitments, while also seeking further opportunities for efficiencies. State-of-the-art video conferencing has also been implemented, which is helping to reduce the amount of travel for routine inter-site meetings.

Overview of indirect impacts

Dstl aims to reduce its reliance on electricity generated by fossil fuels and to introduce localised generation. This was started on a very small scale this year and will support business resilience to ensure that the organisation can still continue to function if fuel shortages occur. A significant wind turbine project is currently being taken to the full planning stage, and opportunities for maximising carbon reduction, as part of the next phase site rationalisation programme, are being evaluated.

Waste		2008/09	2009/10	2010/11	2011/12	Graphical Analysis	
Non-financial indicators (t) (tonnes)	Total waste	2,250	2,203	1,661	1,777		
	Hazardous waste internal incineration solid	245	225	242	190		
	Hazardous waste internal incineration wet	23	47	16	79		
	Hazardous waste – external disposal	79	62	58	40		
	Hazardous waste – total	347	334	316	309		
	Non-hazardous waste	Landfill	328	144	109		167
		Re-used/ recycled	1,466	1,516	994		1,052
		Internal incineration solid	0	0	0		0
		Incinerated/ energy from waste	109	209	242		248
	composted						
	ICT Equipment						
Financial indicators (£'000)	Total disposal cost	£242	£270	£291	£389		
	Hazardous waste – disposal cost (Note 9)	£171	£204	£223	£329		

Targets and narrative

Dstl is currently recycling or reusing 89 per cent of its waste arisings – significantly exceeding Dstl, MOD and wider Government targets. Future improvements will be challenging, given the already high level of recycling/reuse. However, Dstl will continue to deliver further improvements wherever possible.

Direct impacts commentary

The main direct impacts of waste are related to business outputs and (in recent years) to construction and site development activities. Dstl also produces quantities of hazardous waste that are either incinerated on site in accordance with Environment Agency approved standards, or disposed of via approved external suppliers.

Overview of indirect impacts

Dstl continues to work with its 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			2008/09	2009/10	2010/11	2011/12	Graphical Analysis
Non-financial indicators	Water consumption (m3) (Notes 10 - 11)	Supplied	165,372	191,543	189,260	210,902	
		Abstracted	219,667	225,540	215,644	204,314	
Financial indicators (£'000)	Water supply costs	£687	£755	£856	£901		

Targets and narrative

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

Direct impacts commentary

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

Overview of indirect impacts

Dstl continues to work with its partners to ensure that water is used efficiently and effectively as part of ongoing operations. Staff are encouraged to report any local leaks or inefficiencies.

Finite Resource Consumption – Energy			2008/09	2009/10	2010/11	2011/12	Graphical Analysis
Non-financial indicators	Energy consumption (KWH)	Electricity-non renewable	46,995,332	49,166,919	50,035,679	48,514,372	
		Electricity-renewable	0	0	0	2,925	
		Gas	54,468,747	51,045,180	57,958,275	46,090,211	
		LPG	0	0	0	14,388	
		Oil (Note 12)	33,924,296	24,929,426	26,578,647	28,251,840	
Financial indicators (£'000)	Total energy expenditure (Note 8)		£7,643	£5,212	£6,391	£7,144	

Targets and narrative

Please see Targets and narrative under Greenhouse Gas Emissions, above.

Finite Resource Consumption – Paper			2008/9	2009/10	2010/11	2011/12	Graphical Analysis
Non-financial indicators	volume (t) (Note 13)	total	55.48	49.07	50.31	43.08	
	Financial indicators (£'000)	Total Paper Expenditure		£45	£66	£61	

Targets and narrative

Paper usage and cost is being reported for the first time as per the Treasury Guidance document. Dstl is working towards the Greening Government target regarding paper use reduction. Over the past four years Dstl has reduced paper use by over 22 per cent, although it must be recognised that much of Dstl's output is demand-led by its customers, so it may not be always possible to maintain current consumption, or reduce usage beyond the Government target.

Direct impacts commentary

Dstl purchases its paper via the Government Procurement Service contract arrangements and has also recently centralised its internal process for ordering and controlling the use of paper. This has had a positive affect 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 the reduction in paper usage in Dstl. The Laboratory operates a comprehensive Electronic Records System and makes extensive use of Share Point 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.financialreporting.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.
- Estimates for 2010/11 scope 1 and 2 emissions now updated with actuals.
- Fugitive emissions included for the first time this year, with prior years also updated.
- LPG emissions recorded for the first time this year.
- Scope 3 travel costs and emission data for all years now includes rail transport, taxis and fuel utilised for official vehicles.
- Scope 3 travel emissions have been adjusted for all years following updated information received from Dstl's Travel provider.
- Estimates for 2010/11 energy costs now updated with actuals.
- Previously reported hazardous waste disposal costs for all years were incorrect due to a transposition error in the underlying data. Total waste disposal costs remain as previously reported.
- Adjustments have been made to water figures for 2010/11 for consumption and supply costs due to a updated Quarter 4 figures that were previously estimated.
- Water abstracted for 2009/10 was incorrectly stated in last year's report due to transposition error.
- Oil KWH for 2009/10 was incorrectly stated in last year's report.
- Paper usage and expenditure data relates to supplies procured by Dstl via Government contracts. Additional paper is also used by Dstl's Strategic Facilities Management partner but this has not been included as the volumetric data is not available.



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