



BSI Standards: Report to the Department for Business, Innovation & Skills

Use of BIS funding and NSB activity for the
financial year 1 April 2014 to 31 March 2015

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Meeting of the national committee on Lung ventilators & related equipment (CH/121/9), November 2014.

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1 Introduction

BSI is the UK's National Standards Body (NSB), representing UK interests internationally and delivering a world-class formal standards making process at home.

1.1 National Standards Body – an overview

As the UK National Standards Body (NSB), BSI represents UK economic and social interests at European and international standards organizations CEN, CENELEC, ETSI, ISO and IEC. We manage the national standards-making process, providing a service for organizations of all sizes and sectors to develop market-led voluntary consensus standards through open public consultation and full stakeholder engagement. Our relationship with Her Majesty's Government (HMG) is constituted through a memorandum of understanding (MOU)* that sets out our role as the NSB.

The importance of standards to the European Commission in supporting EU legislation is highlighted on the Directorate General for Enterprise and Industry website: "While the use of standards remains voluntary, the European Union has, since the mid-1980s, made increasing use of standards in support of its policies and legislation."**

Active participation in European standards organizations safeguards UK interests by ensuring that standards used to demonstrate compliance with European Directives are acceptable to UK stakeholders.

During 2014/15, with support from BIS, we have carried out three research projects that increase evidence demonstrating the value of standards. The refresh of the Government's 2005 *Economic benefits of standards* report was key among these and showed that standards boost UK productivity and performance, drive innovation and support UK domestic and international trade, while contributing 28.4% of annual GDP growth to the UK economy, equivalent to \$8.2bn at 2014 prices.

This report focuses on our use of HMG funding, which comprised around 6 per cent of BSI Standards revenue during financial year 2014/15.

* http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/16505/Memorandum_of_Understanding.pdf

** http://ec.europa.eu/enterprise/policies/european-standards/index_en.htm

"With the support of BIS, BSI manages a world-leading standards infrastructure. Independent research published this year shows that this infrastructure is delivering substantial economic and social benefits to the UK."

Scott Steedman CBE, Director of Standards, BSI





2 Main funding envelope

During 2014/15 we continued to implement our strategy of providing a clear market sector focus for our standardization work programme. This enables timely and effective solutions tailored to the needs of businesses trading in the UK and overseas, while supporting associated UK government priorities.

2.1 Introduction

Our standards work continues to be more than 90 per cent self-funded. HMG funds activities in key areas of public policy interest and priority areas such as innovation.

Our standards-related activity met 2014/15 funding year objectives set by the annual funding agreement between the Department for Business, Innovation & Skills (BIS) and BSI. This section of the report summarizes our activity during the year relating to funding agreed for our work as the UK NSB.

The overall allocation for the funding year 2014/15 was £4,160k. The full BIS contribution towards standards-related activities was used. Total expenditure on these activities exceeded the 2014/15 allocation. Our traditional fund-associated NSB activities were supplemented by Committee Member training, awareness-raising, higher education work and initiatives with other standards bodies that are developing a standards infrastructure.

2.2 Areas of activity supported

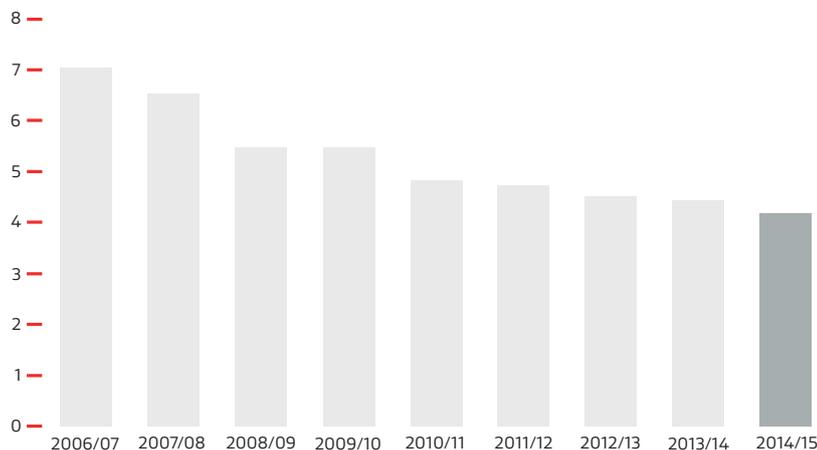
Recognizing the importance of our work and that some aspects are not self-funding, BIS funds specific activity in three main areas:

Influence and leadership supports the infrastructure necessary for the UK to participate in European and international standardization, while giving HMG access to standards. The fund includes a subscription fee that gives all HMG departments and their agencies a large discount when buying standards published by BSI.

Support for standards development covers activities relating to developing standards content. Most of the total funding is made available for such development activities in areas that promote key HMG policies, such as competitiveness, innovation, reduction of trade barriers, fair trading and protection of consumer interests, environmental protection and procurement.

BIS funding contributed towards full programme-management support for 140 UK standards technical committees in 2014/15. Their programmes overwhelmingly (95 per cent) comprise European and international work, with 5 per cent national work. We continued to act as the gateway for UK parties to take part in international standardization through support received from our Committee Service Centre (CSC).

BIS main funding grant to BSI (£m)



BSI Standards revenue 2014



In 2014/15, BIS-funded UK standards technical committees, including those managed via our CSC, facilitated publication of 1,532 new and updated standards, with 909 withdrawn from circulation. Appendix 5.1 provides details of committees supported and Appendix 5.2 lists subject areas of the standards published.

Support for participation in standardization supports UK participants in European and international standards work by contributing towards their travel costs. Making sure that UK delegates attend overseas standards meetings is often key to ensuring that UK interests are represented when European and international standards are created or updated. This fund also helps ensure continued consumer participation in standardization, by providing support towards travel to standards committee meetings, recruitment and training for our network of consumer representatives.

During the year, BIS funding contributed to the travel costs of 2,542 UK experts participating on behalf of the UK at overseas European and international standardization meetings.

2.3 Spending detail

	Original funding allocation (£k)	Agreed movement of funds up to 25% (£k)	Final funding allocation (£k)
Influence and leadership			
BSI membership for HMG	365	0	365
Contribution to membership of ISO/IEC/CEN/CENELEC	500	0	500
Total	865	0	865
Support for standards development			
General – NSB activity and public interest standards development (including staff travel)	1,231	11	1,242
Priority Areas standards development	865	0	865
Management fee	54	0	54
Total	2,150	11	2,161
Support for participation in standardization			
Assisted International Travel Scheme	1,062	0	1,062
Support for consumer participation in standardization	82	(11)	71
Total	1,145	(11)	1,134
Total funding	4,160	0	4,160

“As scheme administrator and a regulator for the Energy Savings Opportunity Scheme (ESOS), the Environment Agency recognises the importance and value of standards. ISO 50001 provides a mechanism for organizations to confirm that they manage energy in accordance with best practices to continuously improve efficiency. Organizations certified to ISO 50001 are automatically compliant with ESOS and this removes additional regulatory compliance requirements that would otherwise have applied to them. We recognize the quality of ISO standards, meaning we can trust certification and focus our regulatory efforts on organizations that still have work to do to manage their energy use in accordance with best practice.”

Jo Scully, Energy Savings Opportunity Scheme Project Manager, Environment Agency

2.4 Influence and leadership

BSI membership for HMG



Objectives

A central BSI membership agreement enables HMG departments and agencies to access standards in a comprehensive and cost-effective manner, while enjoying other BSI membership benefits such as alerting, advisory and information services.

- Membership benefits all government departments and agencies
- As the lead HMG department working with BSI, BIS has subscription access to British Standards Online (BSOL) for department use only. Extensions to other HMG bodies are excluded
- BIS to work with BSI to agree activities to raise awareness of the membership services available to HMG departments and agencies

During the year, all HMG departments and agencies benefited from access to BSI member services, including:

- 50 per cent off British Standards (including adopted European and international standards)
- 50 per cent off BSI's flagship online database product, BSOL.
- Up to 10 per cent off international (ISO) and non-UK standards (eg DIN German standards)
- 50 per cent off many BSI conferences.
- Free postage and packing when buying hard copy standards, as well as credit where prepayment when buying a standard is not necessary
- Access to the Private List Updating Service (i.e. validation and tracking of a standards list provided by the member, with new versions sent automatically when updated)
- Expert help from the BSI Knowledge Centre, including advanced subject searches and fast identification of international equivalents from more than 200 standards organizations in 23 countries
- Inexpensive access to international and foreign national standards including American, ISO and DIN, through a postal loan service and sale of withdrawn British Standards

We continue to work with BIS to make HMG aware of BSI membership benefits. This activity is carried out alongside ongoing efforts to promote standardization within government departments, as well as supporting BIS in meetings and follow-up actions from the cross-governmental Taking Standardization Forward committee. Working with BIS, we have also started a programme of outreach and development for other government departments.

We continue to manage several government departments as key accounts, where our managers work closely with their HMG contacts to develop a strong relationship, ensuring individual department and agency requirements are met.

“Standards play an important role in ensuring the wider adoption of BIM technologies, processes and collaboration by ensuring that the same accurate data can be accessed throughout the supply chain. The standardization of Level 2 BIM helps HM Government and industry save significant sums and enable significant future industry growth.”

Mark Bew MBE, Chair of the HM Government BIM Task Group

Contribution to membership of ISO/IEC/CEN/CENELEC



Objectives

This fund supports UK obligations under European Regulation 1025/2012, which aims to prevent creation of new technical barriers to trade. The purpose of our activity is to:

- Ensure that we maintain an appropriate presence on key international and European committees and fora to enable the UK to influence standards policy
- Ensure that UK obligations under European Regulation 1025/2012 have been fulfilled

Financial contribution to our international and European subscriptions represents part of BIS's direct support to the standards infrastructure. Our membership of international and European standards organizations supported through this contribution enables the UK to maintain a standards infrastructure that is consistent with European standards policy, as required by the MoU between BSI and HMG.

Membership also opens gateways for international discussions, enabling UK stakeholders to participate in development of international and European standards, while enabling us to influence, on behalf of the UK at a high level, the policies and strategies of international standards organizations such as ISO, IEC, CEN and CENELEC.

Under European Regulation 1025/2012, EU member states must give notification of any new national standards being developed. This year, 86 new British Standards projects were reported to CEN/CENELEC.

BSI Director of Standards, Dr Scott Steedman, continued his role as CEN Vice President (Policy). We participate in all key policy development committees of the international and European standards organizations, including administrative boards and technical boards. We also provide leadership by holding international standards committee secretariats in key areas for the UK, such as energy management, sustainability, quality management, nanotechnologies, environmental management, anti-bribery and wave energy.

The BIS contribution (£500k) makes up approximately 23% of our annual subscriptions to ISO, IEC, CEN and CENELEC.

2.5 Support for standards development



Objectives

Support for our standards development programme including: programme management support for eligible BSI committees meeting scheme criteria; access to international standardization provided for committees by our Committee Service Centre (CSC); BSI staff travel in support of standards development.

Implementation of the 2014/15 Priority Areas programme of work, as agreed with BIS in relation to HMG priorities/policies, including use of the Investment Case and One Page Project Plan templates for effective programme management and monitoring.

This funding contributes towards activities we undertake to meet UK formal standardization needs and facilitate UK participation in international standardization. These activities include:

- Support via named BSI staff as programme managers for eligible UK national committees and European/international committees (including where the UK holds the secretariat of the latter)
- Support via the BSI Committee Service Centre for some UK national committees, providing a gateway to interested UK parties for participation in European and international standardization
- A continued Priority Areas programme of proactive development of standardization supporting HMG policy priorities, via projects drawing on a unique mix of BSI standards development activities (e.g. pilots and case studies, research, document development, funded leadership positions, etc)

Subscriptions to ISO/IEC/CEN/CENELEC



BIS contribution
22.5%

BSI contribution
77.5%

Standards development programme

Under our standards development programme scheme rules, funding is applied to non-commercially viable UK committees whose work supports HMG priorities in relation to:

- Government or public interest (i.e. regulation, consumer protection and safety).
- Standardization supporting Priority Areas (pre-competitive standardization supporting innovation, such as Innovate UK (formerly the Technology Strategy Board) priorities)
- NSB international work programme (ie activities the NSB conducts to fulfil its core function on behalf of the UK)
- Specific/urgent industry standardization (i.e. promoting productivity or UK competitiveness in world markets through standardization that protects UK interests, exploits UK expertise and has a large impact on UK industry, including international secretariats)

Non-commercially viable UK committees are those where the use of resources (in the form of our staff supporting the UK committee and, where applicable, any corresponding BSI-run European or international secretariats) exceeds the average annual income generated by sales of standards assigned to that UK committee.

A forecast of eligible committees and HMG priorities supported by their work programme is developed via a review of the work programme and drivers for UK committees and their corresponding UK-held secretariats, supported by named BSI programme managers. The review is integral to the overall BSI Standards market development planning process, through which each sector team analyses its overall standards pipeline and forecasts resources accordingly.

Spend summary

Category ²	Number of eligible committees	Chargeable days worked Apr 2014-Mar 2015	Funding requirement ¹
1. Government or public interest			
Regulation, consumer protection, safety, etc.	67	1,251	£702k
2. Standardization supporting Priority Areas			
BSI Priority Areas programme ³			£473k
Priority Areas committees: Innovation, procurement, better regulation, sustainability, infrastructure	61	1,532	£859k
3. NSB international work programme (includes technical and sub-committees)			
	418	2,568	£1,441k
4. Specific/urgent industry standardization			
Productivity and UK competitiveness	11	243	£136k
Total Cost		5,593	£3,611k

1. The full cost of the support in the areas shown exceeds funding provided, with BSI covering the shortfall.
2. The total cost and days worked are assigned to one category only, although some committees are eligible in more than one.
3. Funding applied for Priority Areas projects relates to activity delivered in the year. The total value of projects committed to in the year was £370k.

The use of our staff in support of UK committees (and corresponding BSI-run international secretariats where applicable) is monitored each quarter. At the end of the final quarter, the actual resource employed during the funding year is determined and committees with a main HMG priority are confirmed and added to the initial forecast list or removed as appropriate.

The list of technical committees supported by standards development funding in the year is detailed in Appendix 5.1.

At the end of the funding year, 140 technical committees identified as candidates requiring support from the standards development fund. The costs of supporting these committees and those managed via the BSI Committee Service Centre exceeded the available BIS contribution.



UK representative Dr Jonathan Freeman speaking at the annual ISO Consumer Policy Committee (COPOLCO) meeting in Milan, May 2014.

facility-related service providers. The process of moving from one facilities management service provider to another is often poorly conducted, causing unnecessary disruption to end-users and incurring extra indirect costs.

The purpose of the new standard is to recommend a process by which facility owners and tenants can manage the transition from one service arrangement to another more efficiently and cost-effectively.

The anticipated benefits are summarized as follows:

- Reduced costs of dealing with transition resulting from re-tendering
- Better transition management will ensure that end users do not suffer service disruption that could severely impact business profitability or have health and safety consequences
- Reduced risks for facility owners and tenants when changing service provider.
- Lessen needless waste in resources and time
- Encourage greater competition for services so that owners and tenants are no longer reluctant to change for fear of disruption to existing service delivery
- Service providers with a transition plan who can demonstrate following the standard's recommendations are likely to win more business from owners and tenants, while becoming more competitive in overseas markets

This standard complements BS 8752: 2011 *Procurement of facility-related services*, which also received BIS funding.

Published output of committees supported by BIS funding

During 2014/15, the 140 UK standards committees that received BIS funding and support from named BSI programme managers facilitated publication of 664 new and updated standards, with 330 withdrawn from circulation.

A further 868 standards were published and 579 withdrawn as a result of access to international standardization facilitated by the CSC. Please refer to Appendix 5.1 for details of committees supported and Appendix 5.2 for the subject areas of standards outputs.

Priority Areas Standards Development Programme

We delivered a varied programme of standardization activity to support policy priorities and the innovation agenda, ranging from standards strategy creation and delivery work to various awareness-raising activities.

As previously, the cross-departmental Taking Standardization Forward committee, managed by BIS, validated the Priority Areas Standards Development Programme. All 2014/15 project proposals put forward – including those that proposed funding for a repeated intervention – went through an investment case process. 2014/15 Priority Areas programme highlights:

BS 8892 *Transition of facility related services* – document development

This was developed to address an issue experienced by many facility owners and operators, as well as the Government Property Unit in 2013, when considering changeover of

In 2014, the development of the standard was endorsed by Debi Rowland, Government Property Unit Head of Facilities Management Policy & Strategy, who said: "The new pan-Government framework for FM services is being developed by both the GPU and the Government Procurement Service. This standard is timely because it will help Central Government set standards and policy in this area that is aligned with private sector best practice."

This project aimed to facilitate the streamlined development of BS 8892 by commissioning an expert to draft the document and lead on resolving public review period comments. The standard was published on 1 September 2014.

Strategic relationship with EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services at Cranfield University – year three

The UK Government is investing heavily in through-life engineering services (TES), as demonstrated by the setting up of the £10.4m EPSRC Innovative Manufacturing Centre in TES at Cranfield University. It has numerous high-profile partners and collaborators, including BAE Systems, Rolls Royce, Bombardier and the MoD.

BSI has recognized that TES offers the opportunity to build consortia for industry-led standardization in support of the emergence in the UK of a significant TES capability. This project is for the third year of work and follows a highly successful first two years of engagement. BSI is well placed to engage with key individuals to help shape the centre's research agenda, which will lead to standards creation. The year three report was presented at the national TES conference and workshop in November 2014, with work then commencing on year four of this five-year project.

The 2014/15 Priority Areas budget was allocated to:

Reference number	Project title
INN14-01	BS 8892 <i>Transition of facility related services</i> – document development
INN14-02	BS 8895 <i>Designing for material efficiency in building projects, part 2: Code of Practice for Concept and Developed Design</i> – document development
INN14-03	BS 7543 <i>Guide to durability of buildings and building elements, products and components</i> – document revision
INN14-04	Strategic relationship with EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services at Cranfield University: year three
INN14-05	Packaging and defence standardization pilot project
INN14-06	Priority Areas management
INN14-07	National and international secretariats for eligible Priority Areas committees
INN14-08	Financial Services – opportunities for standards in the insurance and investment sectors – research
INN14-09	Revision of BS 8536 <i>Facility management briefing, Code of practice</i> incorporating Government Soft Landings (GSL) and Performance Evaluation (POE)
INN14-10	International influence - funding to support the attendance of three experts to attend international (ISO) meetings to convert PAS 1192-2:2013 <i>Specification for information management for the capital/delivery phase of construction projects using building information modeling (BIM level 2)</i> into an ISO standard
INN14-11	Construction and Built Environment Policy and Strategy Committee (CB/-) – committee leadership
INN14-12	Strategic relationship with EPSRC Centre for Innovative Manufacturing in Through-life Engineering Services at Cranfield University: year four
INN14-13	BS 8900 <i>Guidance for managing sustainable development of organizations</i> – briefing events for SMEs
INN14-14	Sustainability Standards Navigator – awareness raising activities
INN14-15	Broadening environmental stakeholder involvement in standards – the UK Sustainability Network for Standardization (SNS)
INN14-16	Guidance to accompany ISO 20121 <i>Event sustainability management systems</i>
INN14-17	Security techniques (identity management and privacy technologies) (IST/33/-/5) – committee leadership
INN14-18	CCTV national framework – stakeholder workshops
INN14-19	Standards for the delivery of government policy – research
INN14-20	European Defence Standards Reference System (EDSTAR) – review of technical domains
INN14-21	The value of standards in stakeholder transactions – research
INN14-22	Standards for manufacturing in support of the Industrial Strategy

Financial Services: opportunities for standards in the insurance and investment sectors – research

Following the publication in 2013 of joint research report *Backing Market Forces – How to Make Voluntary Standards Markets Work for Financial Services Regulation*, BSI commissioned two sector studies as follow on research, working with sub-sectors of the financial industry (insurance and investment) to identify standards and key stakeholders required to support the sector's effective regulation.

The project will engage directly with financial industry sub-sectors identified in *Backing Market Forces* as being suitable for standards. Four stakeholder workshops and four qualitative interviews/surveys were delivered. Two outcomes reports, one for insurance and one for investment management, were delivered in October 2014. As well as soft copies on the BIS website, hard copies were printed for distribution.

CCTV national framework – stakeholder workshops

The Surveillance Camera Commissioner's Office, which is based within the Home Office, set up a CCTV Standards Group that has been developing a best practice framework for public/town centre spaces, with input from BSI, the British Security Industry Association, the Security Industry Authority (SIA), the police, local authorities and the Sector Skills Council (security), amongst other bodies.

The group has been tasked with creating a uniform CCTV Surveillance Camera Framework (guidance and practice) to meet legal and licensing obligations referred to by the Surveillance Camera Code of Practice. It is essential to raise awareness of this important work to ensure better use of standards in this area, which will help to improve performance and encourage wider understanding. Raising awareness is also important to gain full input from stakeholders in the framework's development.

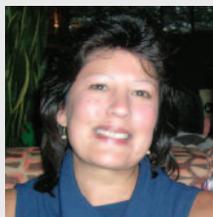
Case studies



Sustainable procurement

Lead Programme Manager, Colin McKerracher, attended the third meeting of the ISO committee in Singapore on sustainable procurement. The

principal UK expert was new to international standards work and needed support in ISO processes, procedures and standards drafting. UK experts' participation in developing the ISO standard has brought good alignment with existing British Standard BS 8903 and the ISO standard will be important to UKPLC and public sector procurers. They have seen an evolution in sustainable procurement practice, supported by uptake of the existing British Standard. The new ISO standard needed to be part of that evolution, otherwise significant investment made by UK companies and public bodies would have been wasted.



Safety of diving equipment

Programme Manager, Susan Revell, travelled to the Standards and Metrology Institute of Malta to support the UK delegation at a meeting for revision of the

European standard on self-contained underwater breathing apparatus. She presented a UK proposal for addressing safety issues that have led to fatalities in the diving industry (including Royal Navy and North Sea oil rig divers), and provided more general assistance to the UK delegation relating to CEN procedures and processes. This work has the support of the HSE and MoD members of the UK committee for underwater breathing apparatus.



This project initially consisted of facilitated stakeholder workshops. Their input was collated and recommendations were then made to address gaps in current standards. Three workshops took place in November 2014 in London, Bristol and Manchester to encourage more input from stakeholder groups and raise awareness of the upcoming national framework. Workshop outputs were formed into a summary report/white paper with recommendations. The London workshop was filmed and the video is available on BSI's YouTube channel.

Staff travel fund

An allowance for staff travel is available within the Support for Standards Development budget. It enables our staff to accompany UK committee members to meetings and provide guidance and support that enables technical experts and delegates to maximize their influence during overseas meetings – which ultimately benefits the UK. This funding continues to provide valuable support to UK committee members.

2.6 Support for participation in standardization



Objectives

Financial support to UK delegates for meetings relating to international standardization through the Assisted International Travel Scheme (AITS).

- Continued management of AITS spend by allocating the fund across four phases. The projected spend against budget for each will be monitored to prevent overspend
- Monitor use of the fund for 2014/15 to ensure maintenance of UK presence at core meetings
- Monitor use of the fund for 2014/15 to ensure it is used predominantly by SMEs (small and medium-sized enterprises)

Assisted International Travel Scheme

The AITS fund supports UK participants in international standards work by contributing towards their travel costs. The presence of UK delegates at international standards meetings ensures UK interests are represented when international standards are created or updated. Without this assistance many experts and delegates would not be able to participate.

In 2014/15, AITS funding of £1,062k was awarded. The scheme supported 2,542 UK committee members attending international meetings in various roles throughout the funding year.

During 2014/15, the fund was used mainly by SMEs (in line with government priorities for SME access). Although this funding is crucial for smaller businesses that lack resources to attend, it also allows technical staff within larger companies to justify travel costs and time away from their employers.

Case study



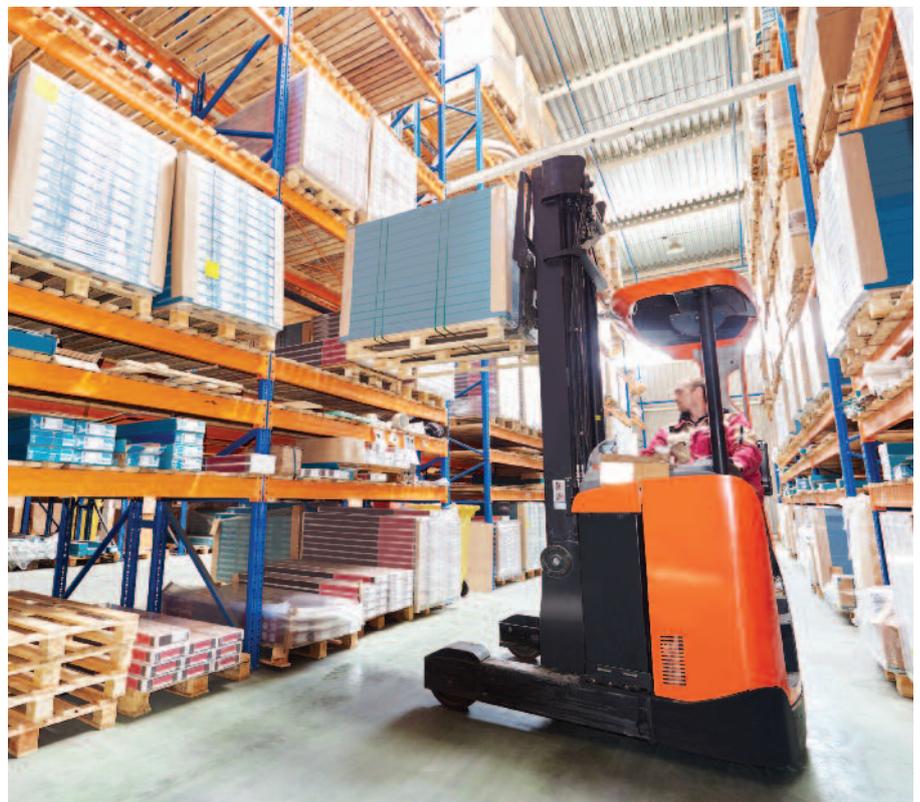
Safety of industrial trucks

Bob Hine is an expert in the safety of industrial trucks (forklifts), which is a high profile subject at European level and requires continuity of expert participation from

industry and regulators. Mr Hine's involvement as Chairman of the BSI committee MHE/7 Industrial trucks and the European CEN/TC150 Industrial trucks – safety through the financial support that the AITS funding provides, allows the British Industrial Truck Association to contribute to the shortfall.



Through continuous development of standards at CEN and ISO level, great strides have been made to develop standards that improve the design of industrial trucks to minimize workplace injuries and fatalities. AITS funding is vital in supporting Mr Hine's continued involvement as an expert. He is a technical consultant to the British Industrial Truck Association and has been involved in the materials handling industry for 45 years.





Support for consumer participation in standardization



Objectives

Manage effective consumer and public interest (CPI) participation in standardization through their contributing innovative ideas and playing a key role in shaping standards.

- Support for consumer participation in standardization (including assisted consumer travel)
- Organize Consumer & Public Interest Network (CPIN) meetings and training focussing on topics relevant to the consumer and public interest (at least two CPIN meetings and at least one at an appropriate external venue)
- Maintain awareness of standards. Arrange the preparation/revision of at least one publication and/or at least one relevant background research/specific project to ensure evidence base
- Maintain the number and relevance of individuals involved in the process to match CPIN priorities
- Ensure attendance of CPI representatives at UK and international standardization meetings in accordance with relevant areas of interest (at least 100 during the year)

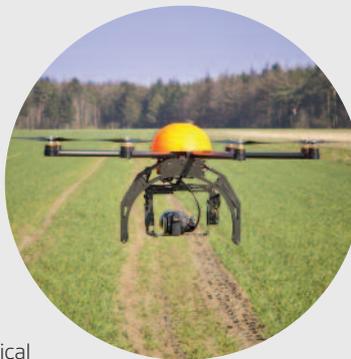
Case study



Agricultural and forestry machinery

For more than 21 years Keith Hawken has been the Chairman of national standards committees involved with agricultural tractors, forestry

machinery, implements, mowers, outdoor power equipment, trailers and crop protection equipment, as well as ISO Chairman for harvesting and conservation equipment since 2008. He is the Technical and Standards Director of the Agricultural Engineers Association, one of the oldest trade associations established in the UK and founded in 1875.



Mr Hawken commented: "AITS funding is vital to the overall cost we incur to fly the UK banner globally by using British innovation skills from member companies, in the development of safety standards and sustainability projects. With AITS funding we receive about half the cost of meeting travel and logistics expenses, but this enables participation at many meetings we could not otherwise attend, as we try to shape the many complex machines we are making available to help crop production to feed the world."

He added: "With the EN ISO 4254 Agricultural machinery – Safety series after we had explored testing differences in Texas, Brazil, China as well as Europe we are designing and producing safe machinery that is able to be sold all over the world, and with our standards peers appreciative of our respected research and development portfolio here in the UK. The AITS scheme helps our member expertise punch above its weight at standards meetings, where we are often outnumbered, and so this is essential to keep UK companies at the cutting edge of technology, by continued standards activity in a tough cost environment".



Members of the Underwater breathing apparatus national committee (PH/4/7) with the Chairman (also Chair of the European committee on Diving apparatus, CEN/TC9/SC7) after he had been presented with his Special Commendation award for outstanding services to standardization in this field.

Consumer involvement in standardization

Throughout the year CPI representatives have been involved in 130 UK and international standards technical committee meetings and working groups. Topics have included adventurous activities, biometrics, complaints handling, customer services, electrical toys, exposure to electro-magnetic radiation, gas cooking appliances, nanotechnology, performance of vacuum cleaners, robots and robotic devices, safety of electric tools, safety of audio and video equipment, sensory analysis, dishwasher fires, e-cigarettes, dementia-friendly communities and playground equipment.

CPI representatives plan their objectives in meetings to develop specific standards and report against these goals. Some examples of the purpose and benefits of consumer involvement include:

Children's interests

The consumer representative on the UK committee for sports, playground and other recreational equipment attended an ANEC (European consumer voice in standardization) Child Safety Working Group meeting to discuss key issues. These included the European

proposal to reduce the head injury criteria for playground surfacing in the revision of the European standard on critical fall height, and the need to develop better information about accidents in playgrounds and the type and severity of injuries.

Inclusivity – accessibility

This reporting year has been dominated by finalizing the revision of ISO/IEC Guide 71 *Guidelines for standards developers to address the needs of older persons and persons with disabilities* (CEN Guide 6) – by the Joint Technical Advisory Group (JTAG), created in May 2011 for this purpose, and by the realization of plans to firmly locate and restructure future work on accessibility within BSI.

The CPIN Accessibility Coordinator formally represented BSI on the ISO/IEC Guide 71 JTAG, and with colleagues from the UK, played a leading role in supporting and developing the 'Accessibility Goals' approach, the substantially innovative contribution to this revision. This has formed an important part of the revised approach BSI will take in 2015 to addressing accessibility in our standards development work going forward.

Product safety

The CPIN continues to cover the extensive work of the European committee on Safety of household and similar electrical appliances. The prime objective is to progress 'exclusion clause' amendments to the *European standard EN 60335 Safety of household electrical appliances*.

Diligent work by the CPIN representative over several years has culminated in removing clauses at European level that excluded certain users – including children and vulnerable adults – from using normal household domestic appliances.

Increasing consumer awareness of standardization

Material was submitted for the summer 2015 edition of the *ISO Consumer update*, an electronic newsletter with some 2,000 subscribers worldwide. An article about standards education was submitted to the Malaysian Association of Standards Users, including information about involving stakeholders. A contribution about stakeholder involvement, including consumers, was also part of a BSI contribution to *China Standardization* magazine. In December 2014, we published consumer-focused leaflets about customer service standard BS 8477, robots and personal care standard BS EN ISO 13482 and sustainable development (various standards)..

Policy, planning and informative meetings

BSI hosted a meeting of the ANEC (European consumer voice in standardization) Services Working Group in May 2015. Its Chair is the former CPI Services Coordinator, giving the UK strategic advantage. The meeting also enabled UK representatives in the services area to meet members of ANEC and be updated on projects in which UK consumer representatives are involved at national or European level. The ANEC Child Safety Working Group meetings in March 2015 were also hosted by BSI.

The summer CPIN all members' meeting took place in June 2014 at the Royal Botanical Gardens, Kew, where the theme was the future. A panel of external experts debated: 'The future will be bright for consumers in 2020 and beyond' – True or False? The theme at the winter meeting, held at BSI in December 2014, was children's interests. BSI's Director of Standards presented special commendations and distinguished service certificates to CPIN members.

Case study



Sustainability

Consumer Representative Phil Creed's work on sustainable and traceable cocoa (working with the European (CEN) and international (ISO) committees) has been a



significant success. These committees have one newly published standard (BS ISO 2451 Cocoa beans - specification) and one with three parts under development (BS ISO 19381 Sustainable and traceable cocoa). BS ISO 19381 has now been expanded to include a fourth part.

A large part of this work has involved coming to agreement among cocoa producing countries (CPCs) and finalizing decisions. The effort put in has resulted in greater participation from CPCs and in particular farmers from Cote d'Ivoire, who are now more confident in the production of a credible standard for sustainable cocoa. There is a strong consensus from all the CPC stakeholders that consumers should have easy access to all information on certified sustainable cocoa and how it is used in products. This is far from the case at the moment.

Africa accounts for 68% of the world's cocoa production and Cote d'Ivoire is the largest (by volume) single national producer, responsible for a third of the world's cocoa. Unlike larger, industrialised agri-businesses, most cocoa comes from small, family-run farms with limited leverage that often rely on outdated farming practices. The continued increase global demand for cocoa products means that these standards being developed are key to the support and improvement of cocoa farm sustainability.

Mr Creed has been instrumental in pushing for better clarification of methods used in cocoa trading and chocolate manufacturing, as well as how these can be best explained to consumers. Although more challenges lie ahead, meetings so far have improved communication between the CEN and ISO committees, which will contribute towards the development of more fair, practical and transparent standards.

ISO Consumer Policy Committee (COPOLCO)

The COPOLCO plenary and workshop was held in Milan in May 2014 with the theme '*Building confidence in a Business-to-Consumer relationship: roles and expectations*'. Also discussed during working group meetings was a range of other topics concerning key areas for consumers, consumer participation, product safety and the global market. The UK delegation included two BSI staff members, representatives of OFCOM and the Trading Standards Institute, and two CPI Network members.

Continuous professional development

The first of two face-to-face days of new continuous professional development training was held in March 2015 for new representatives and CPIN members with technical committee experience. Newer members received training in consumer principles and tackling consumer issues in their technical committee work. More experienced participants could refresh their knowledge. A series of webinars throughout 2015 will follow.

3 Working in the UK national interest

BSI continued to self-fund work carried out by the international projects, education and committee member training functions, which performed well during the year.

We also support consumer and public interest in standards development by funding the BSI Consumer & Public Interest Unit (CPIU) and *honoraria* payments for the volunteer Consumer & Public Interest Coordinators.

The committee member engagement project launched in August 2013 has continued, gathering more feedback from members and developing numerous initiatives to improve engagement. These included producing a new leaflet for committee member recruitment, introducing a welcome pack for new members, collecting demographic data from members, and developing a committee member logo.

In November 2014 we inaugurated the first annual BSI Standards awards for committee members, with ten members honoured. Additional members were recognized, with the introduction of a new special commendation award. Finally, we recruited for a new permanent post of Membership Development and Engagement Manager, who will take on overall responsibility for committee member engagement within BSI.

During the year, Dr Scott Steedman remained in his role as Vice President (Policy) for CEN, continuing our record of holding leadership positions in the European and international standards organizations to ensure UK influence.

Working with donor agencies, we delivered a range of projects to support the standards and quality infrastructures in countries across the globe, including key trading partners, emerging economies and developing countries.

Throughout 2014-15, BSI continued to give UK SMEs access to the standards development process and the development of standardization strategy. In particular, our SME forum continues to provide valuable insights into the standardization needs of UK SMEs. Information gathered from a workshop helped to inform our response to the ISO Strategy 2016-2020 consultation.

In late 2014, the BIS-funded SME Landscape research project was completed, providing a wealth of information about what UK SMEs need from standardization. Stage 1 of the research provided facts and figures on the number, size, business function and location of SMEs. Stage 2 focussed on sources of information for SMEs and what they need from standards and from BSI as the UK National Standards Body. The findings will be combined with those of the 'Economic Contribution of Standards to the UK Economy' research project to develop a BSI small business strategy.

3.1 Working with government

In his 2012 report, *No stone unturned: in pursuit of growth*, Lord Heseltine presented a wide-ranging economic plan to improve the UK's ability to create wealth. One of his recommendations was for BSI to work closely with Innovate UK (formerly the Technology Strategy Board) and the Research Councils to create standards for new technologies and services at the earliest opportunity.





The ten recipients of the first BSI Standards Awards. Awards were given in the categories of Leadership, Emerging Standards Maker, International Standards Maker and the top honour, the Wolfe Barry Award (recipient fifth from right).

In 2013 we started working on four Innovate UK pilot studies concerning offshore renewable energy, synthetic biology, cell therapy and assisted living. These projects have been completed. We researched the role standardization could play in the rapidly developing sphere of offshore renewable energy (e.g. wind, tidal and wave power), and worked with SynBiCite, the Imperial College-led Innovation and Knowledge Centre in synthetic biology, to develop a standards strategy to help accelerate development of synthetic biology. We also worked with the Cell Therapy Catapult, a London-based centre of excellence for regenerative medicine (established by Innovate UK in 2012), to build the UK's position as a global leader in cell therapy. David Willetts, former Minister for Universities and Science, identified synthetic biology and cell therapies/regenerative medicine as one of the "Eight Great Technologies" the UK should prioritize.

In November 2014 we inaugurated the first annual BSI Standards Awards for committee members, with ten members honoured.

BSI won funding from the BIS Collaborative Projects budget and successfully carried out four policy projects highlighting the role of standards in UK economy, business, innovation and quality infrastructure (see 4.1).

3.2 CEN, CENELEC and ETSI

The CEN and CENELEC project called 'Bridging the gap between standards and research' (or 'BRIDGIT') ended in March 2015. Final activities included a training session for CEN/CENELEC on approaching their own research communities and understanding how to engage with the European Horizon 2020 research funding calls. Educational videos for use by CEN and CENELEC members was also produced, together with numerous brochures that are now available on the CEN/CENELEC research website.

CEN and CENELEC started work on new guidance on standards and regulations, helping to articulate more clearly the differences between voluntary standards and regulation, and how the two organizations could work together to support better regulation. CEN and CENELEC also engaged in discussion with their members on the core purposes of each organization.

BSI worked with CEN and CENELEC in Europe and with BIS in the UK on a response to the European Commission's 'Vademecum on European standardization', which sets out new rules for the development and execution of Commission standardization mandates. BSI also submitted a contribution to the European Commission's independent review of the European Standardization System.



The official project launch of the EU funded SMMSS (Support to the Modernisation of Mongolia's Standardisation System) project in Ulaanbaatar, Mongolia in October 2014. BSI's International Projects team is leading on the delivery of this large-scale initiative.

We hosted the latest round of the EU-US task force meetings in London to discuss increased cooperation in the making and use of standards in support of transatlantic trade.

BSI reported to CEN, CENELEC and ETSI under EU Regulation 1025/2012, covering transparency in national standards, use of ICT, and involvement of SMEs, environmental stakeholders, consumers and unions in national committees.

BSI's Director of Standards, Dr Scott Steedman, in his role as CEN Vice President (Policy), took part in a briefing session on standards for members of the European Parliament in Brussels. The event showcased the benefits of standards, and in particular how they support European technical regulations.

3.3 ISO, IEC and other international issues

To support ISO's consultation to its members (including BSI) on its new strategy 2016–2020, BSI undertook an extensive engagement programme, inviting comment from all UK stakeholders, including the BIS Taking Standardization Forward committee. The draft strategy was published on BSI's online draft review system. From hundreds of comments we received from stakeholders, we prepared comprehensive feedback on the consultation on ISO's strategy for the next five years.

ISO also started work on new guidance on standards and regulations (see also work in CEN and CENELEC above), to update existing documents and materials.

At the 2014 ISO General Assembly in Rio de Janeiro, we arranged bilateral meetings with numerous partner standards bodies and signed an MoU with Singapore standards body SPRING.

We also hosted a senior-level ISO event in October 2014 to consider priorities and ideas for international standards in infrastructure.

3.4 UK engagement

We continue to organize Standards Forum events around the country for BSI committee members. The theme of the March event, held in Cardiff, was Cyber security. Two special commendation awards were presented to recognize significant contributions to standards development. Two leaflets were developed and launched at Cardiff, one to promote the BSI Knowledge Centre facility, which is free for committee members to use, and the second on the benefits of participation in standards development. These are now included in our welcome pack for new committee members. Workshops during the day included a session on return on standards investment, while we also held an induction course for new committee members. Two further Standards Forums are scheduled, in Sheffield (June) and London (November).

We've partnered with the Rwanda Standards Board (RSB) to support a major reform of the country's quality infrastructure.

BSI and the UK Accreditation Service (UKAS) held a joint reception at the House of Lords in June 2014 that was attended by some 170 civil servants and BSI/UKAS staff. The event provided a valuable opportunity to explain how standards can help deliver government policy.

We successfully applied for funding from the BIS Collaborative Projects budget and during the latter half of the funding year carried out four policy projects highlighting the role of standards in the UK economy, businesses, innovation and quality infrastructure (see section 4.1).

3.5 Education

BSI's Education Development Manager and others continue to promote standardization in UK higher education institutions.

We held the first young engineering professionals workshop at the Royal Academy of Engineering's Prince Philip House in early 2015. The theme was the future of engineering and the focus was on interdisciplinary working in three key areas to UK industry: internet of things, smart cities and robotics. We welcomed Warren East and Dame Ann Dowling as keynote speakers and Dr Scott Steedman hosted the event. We used the day to choose three UK representatives for the IEC Young Professionals Programme, held at Minsk in October 2015. The day was so successful that we plan to repeat it in 2016.

In partnership with other European standards bodies, we've set up a project group to create education content that will be available freely throughout Europe. From June 2015, a textbook about standardization, accompanying slides and multiple choice questions have been available from the Danish Standards Foundation website, with a chapter written by BSI. There will also be teaching case studies available, with contributions from seven UK universities.

Two open forum events were held at Birmingham City University and Southampton Solent University for ISO 9001 (Quality Management) and ISO 45001 (Occupational Health and Safety) respectively, featuring open committee meetings that local businesses and students could observe, followed by a Q&A session with committee members. The aim was to demystify standards and allow those present to contribute to the development process.

Following the open forum, students at the university were invited to a lecture and workshop on the value and importance of standardization. Feedback from both events has been excellent and we've scheduled more for 2015 at University of Manchester and University of Nottingham.

We have also contributed to an eLearning project, built through EU funding and managed by NEN, seeking to educate SMEs about the business benefits of standardization. The eLearning module covers the process and benefits of standardization as well as how SMEs can contribute. This project will launch in summer 2015.

3.6 International projects

Our international projects team coordinates technical assistance and provides support for quality infrastructures in developing countries. The function of the team is to design, manage and implement projects to strengthen quality institutions worldwide.

While helping to improve fundamental market infrastructure throughout the world, technical assistance projects also enhance the UK's influence worldwide. The improved infrastructures that result are often in fast-growing regions and our work helps to make markets more accessible to trade with the UK.



Below are some highlights of work carried out more recently by our international projects team (a full list is provided in Appendix 5.3).

Developing Egypt's quality infrastructure

BSI, UKAS and the Swedish Board for Accreditation and Conformity Assessment partnered with the Egyptian Accreditation Council (EGAC) to develop Egypt's quality infrastructure.

Over three years, the partners proposed reforms to the regulatory and legislative framework in line with EU best practice. They also helped build EGAC's institutional and technical capacity through a range of training programmes and study visits for assessors and experts. This component focused on obtaining international recognition for formal multilateral agreements with ILAC (International Laboratory Accreditation Cooperation) and IAF (International Accreditation Forum), as well as establishing relations with European Cooperation for Accreditation (EA).

The project raised international awareness of EGAC and enhanced its capacity. Egypt is now a signatory to ILAC and IAF and is part of an EA cooperation agreement under regional accreditation body Arab Accreditation.



Official visit of members of the Mongolian Parliament to BSI to gain an understanding of the role of BSI and the UK Quality Infrastructure, September 2014.

Strengthening Rwanda's quality infrastructure and export capacity

We've partnered with the Rwanda Standards Board (RSB) to support a major reform of the country's quality infrastructure.

Over three years BSI provided strategic assistance by developing a five-year business plan for RSB. We also delivered capacity-building training courses to help RSB prepare its testing laboratories for accreditation and gain international recognition for its product and ISO 9001 quality management system certification schemes. In addition, we conducted

countrywide standards awareness workshops for Rwanda's private sector and ran training on food safety management systems and HACCP (a system that helps food business operators look at how they handle food and introduces procedures to make sure the food produced is safe to eat).

As a result, RSB's organizational structure has been improved and its scope of services considerably extended. The private sector has also gained a greater understanding of the role of standards and the importance in international trade of adopting food safety and quality management systems.



3.7 Committee member training

BSI delivers free training courses for those directly involved in the standards-making process. These courses cover a broad range of technical and interpersonal subjects that aid new and established committee members in undertaking their roles. In March 2015, BSI and the **International Electrotechnical Commission (IEC)** jointly delivered a special one-day training event for conveners and chairmen involved in IEC committee work.

4 Other sources of funding

With funding from the BIS Collaborative Projects budget, four strands of work took place during the year under the overarching theme of the benefits of standards to the UK.

4.1 BIS-funded policy projects highlighting the role of standards in UK economy, businesses, innovation and quality infrastructure

The economic contribution of standards

We commissioned independent economics research organization Cebr (the Centre for Economics and Business Research) to carry out macroeconomic and microeconomic research into the economic contribution of standards to the UK economy. The macroeconomic part of the research updates and extends research previously published by DTI in 2005, 'The empirical economics of standards'. Included was a survey of more than 500 businesses in seven key sectors. Key findings were that voluntary standards: contributed 28.4% of UK GDP growth recorded in 2014 (£8.2bn at 2014 prices); supported 37.4% of UK annual labour productivity growth over the period 1921 to 2013, and impacted on UK exports to an annual value of £6.1bn in 2014. Following delivery of the research in March 2015, planned outputs include publishing the research report and a BSI summary, and launching videos and dedicated BSI web pages.

Vicky Pryce, Cebr Chief Economic Adviser, said: "Standards play a vital and often invisible role in supporting economic growth and open up channels for boosting productivity and innovation. They are an underused tool, giving businesses that aspire to a higher level the opportunity to work together to share innovation. The benefits range from enhanced quality of products and efficiency of processes to better functioning supply chains. The UK has played a leading role globally at each stage of the standards evolution process and this report calls for the continued capitalization of its strong position as a world leader, in the industries where we have competitive advantage."

Return on standards investment

We commissioned an independent economist to produce an algorithm describing a practical, context-related mechanism by which all types of businesses can best estimate their return on investment in standards. The algorithm was used to develop a free online application into which businesses can input key sectoral and other data to estimate their potential returns on standards investment.

Standards and intellectual property

Independent researchers were commissioned to undertake joint research into the relationship between standards and intellectual property (IP). Their report showed that standards development and use interact effectively with the IP framework to promote economic performance for firms and the economy as a whole. Intellectual property rights help to stimulate the generation of new knowledge and

standards act to disseminate it. They concluded that there is potential for extending the engagement of firms and other organizations in this key area and encouraging more strategic use of the standards development and IP infrastructure through the BIS-convened Innovation Infrastructure Partners and bilateral collaboration between BSI and IPO.

UK Quality Infrastructure partnership

We led a dialogue with the National Measurement and Regulation Office, the National Physical Laboratory and UKAS to jointly promote quality infrastructure development to overseas governments. This led to the creation of the UK Quality Infrastructure (UKQI) partnership; planned outputs include a dedicated ukqi.org website and separate 12-page brochure, both promoting UKQI's services using global case studies.





4.2 Developing standards in emerging technologies

In his 2012 report, *No stone unturned: in pursuit of growth*, former Deputy Prime Minister Lord Heseltine recommended that BSI, Innovate UK (formerly the Technology Strategy Board) and Research Councils UK work together to ensure that new standards are created earlier in the development of new technologies.

Standards play an important role in driving innovation and are seen as a useful alternative to regulation or legislation. Lord Heseltine was particularly keen to see if the UK could gain first-mover advantage by developing standards in new or emerging technology areas. To this end, work commenced in July 2013 to foster collaboration between BSI and Innovate UK to accelerate development of emerging technologies in synthetic biology, cell therapies, offshore renewable energy (ORE) and assisted living. The programme has been successfully completed and we are looking forward to collaborating with Innovate UK again in the near future.

The 2013-2015 programme has been successfully completed and we are looking forward to collaborating with Innovate UK again in the near future.

Synthetic biology is the application of engineering principles and digital technologies to biological processes to enable the creation of more productive and sustainable manufacturing. We've been working with major UK experts in synthetic biology to develop a strategy for standards that help to create a digital biomanufacturing industry and accelerate the rate of commercial success using the technology. The strategy report – *The ascent of digital biomanufacturing – creating a new manufacturing industry through the development of synthetic biology standards*, was published in September 2014, with a follow-up executive summary completed in March 2015. *PAS 246 Guide to the systematic design and manufacturing processes in synthetic biology using digital biological information* was published in April 2015.

Cell therapies are medicinal products created using human cells, tissues or organs that have potential to treat previously incurable illnesses. Our work with the Cell Therapy Catapult aims to enable the manufacturing processes of these products to be developed quicker. The final strategy report, *A framework for standards to support innovation in cell therapy manufacturing* was published in September 2014, and *PAS 157 Raw materials selection in the design of human cell therapy manufacturing processes for clinical applications – Guide*, was published in April 2015.





Offshore renewables

The UK is already a world leader in offshore renewable energy (ORE), but to maximize the benefits of technological development pioneered here and fuel rapid market growth, knowledge must be codified. We've been working with the ORE Catapult Centre and Carbon Trust to identify priority areas for standards development: mapping existing standards, consulting with industry experts on priority areas for future standardization and developing pilot codes of practice. The final strategy report – *Offshore renewable energy standardization review* – was published in September 2014, with a follow-up executive summary completed in March 2015. PD 6900 *Environmental Impact Assessment for Offshore Renewable Energy Projects – Guide*, was published in April 2015.

Assisted living

To enjoy a good quality of life, living independently from institutionalized care, the current provision of products and service delivery for elderly people will need to change. Disruptive innovation may be one solution to establish the delivery of long-term care in a new environment. BSI has worked with Innovate UK on the Long Term Care Revolution, to create standards and strategies that set out principles for these new approaches. Our strategy report – *A Framework for standards to support innovation in Long Term Care* – was published in September 2014. Two new standards have also been created and they are freely available from the BSI website. PAS 277 is aimed at health application developers and is aimed at improving quality across the lifecycle of such solutions. PAS 278 is targeted at any organization that provides information and advice to people planning to live independently from institutionalized care.

4.3 Smart Cities initiative

Smart city technologies based on digital infrastructure/services offer an alternative way to monitor and manage physical and social resources in the built environment. The smart cities of the future will use data capture and communication management technologies to deliver high quality services to citizens. Smart approaches to transport, utilities and waste management could transform the efficiency and sustainability of urban communities, significantly reducing service provision costs and carbon emissions.

With funding from BIS we continue to work with stakeholders to develop Smart Cities standards. Our Smart Cities initiative seeks to explain the role standards can play in accelerating the implementation of Smart Cities.

BSI and the Future Cities Catapult joined forces to create the Cities Standards Institute (CSI) in March 2015. The virtual institute is based at the Future Cities Catapult and is helping to grow the Smart Cities market through developing a coherent standardization work programme aimed at city authorities, industry and innovators.

The CSI builds on previous work delivered for the BIS Services Unit to develop five standards in this area: PAS 180 on Smart Cities terminology; PAS 181 Smart Cities framework; PAS 182 Smart Cities data concept model, PD 8101 planning of Future City developments and PD 8100 Overview of Smart Cities.

A consortium of partners has decided the next steps for these standards, which are being developed using the formalized BSI standards development process. Specific projects include:

- Creation of the Cities Standards Institute
- Development of PAS 183, 184 and 185 (topics chosen by the CSI members)
- Research and strategy development projects around topics such as open city data, BIM and Smart Cities convergence and digital infrastructure mapping
- Delivery of international strategy related activities

BIS, Innovate UK and the Future Cities Catapult have provided seed funding and this UK-based work is being fed into development of European and international standards, helping to create a global market for companies that implement them.



4.4 Support and commissioning from other HMG bodies

Below is a list of projects carried out by BSI during the year for other government bodies.

Government Department	Work	Completed or open
BIS (Retail, Construction and Rail Unit)	License fee agreement to cover soft (PDF) copy downloads of six documents (BS 1192:2007, BS 1192-4:2014, BS 8536-1:2015, PAS 1192-2:2013, PAS 1192-3:2014, PAS 1192-5:2015) from the BSI website for one year (1 April 2015 – 31 March 2016)	Completed
BIS (Services Policy Unit)	PAS 182, Smart City concept model – Guide	Completed
BIS (Services Policy Unit)	PD 8100, Smart Cities Overview	Completed
BIS (Services Policy Unit)	PD 8101, Smart Cities Planning Guidelines	Completed
CPNI	PAS 170:2014, Low energy impact test method for vehicle security barriers	Open
CPNI	PAS 300, Civilian armoured vehicles – Test method	Completed
CPNI	PAS 1192-5, Specification for security-minded building information modelling, digital built environments and smart asset management	Open
CPNI	PAS 97:2012 revision, Specification for mail screening and security	Open
DECC	PAS 51215:2014, PAS specification for the competency of energy assessors	Completed
DECC	PAS 2031:2012 revision, Certification of energy efficiency measure (EEM) installation services	Completed
DEFRA	PAS 44:2009 revision, Official identification for cattle – Specification	Completed
DEFRA	PAS 66:2009 revision, Official identification eartags for sheep and goats – Specification	Completed
DEFRA	PAS 96:2010 revision, Guide to the deterrence, detection and defeat of ideologically motivated and other forms of malicious attack on food and drink and their supply arrangements	Completed
DH	PAS 5748:2011 revision, Specification for the planning, application and measurement of cleanliness services in hospitals	Completed

Government Department	Work	Completed or open
Environment Agency	Fund BSI to run the secretariat of ISO/TC113/SC2 'Hydrometry - Notches, weirs and flumes'.	Open
Environment Agency	PAS 1188:2009 revision, Flood protection products	Completed
European Marine Energy Centre (EMEC)	Fund BSI to run the secretariat of IEC/TC114 'Wave Energy' (agreement for July 2013 – July 2016)	Open
HS2 Ltd	Tunnelling standardization workshop and revision of BS 8002:1994, BS 8004:1986 and BS 8081:1989	Open
HS2 Ltd	PAS 8811, Code of practice for client procedures for temporary works	Open
HS2 Ltd	PAS 8812, Guide to the design of temporary works	Open
HS2 Ltd	PAS 8810, Code of practice for tunnel linings	Open
Innovate UK	PAS 157, Raw materials selection in the design of human cell therapy manufacturing processes – Guide	Completed
Innovate UK	PAS 246, Systematic design and manufacturing processes in synthetic biology using digital biological information – Guide	Completed
Innovate UK	PAS 277, Health and wellness apps – Quality criteria across the life cycle – Code of practice	Completed
Innovate UK	PAS 278, Principles for the provision of information and advice to help older people plan for independent living – Code of practice	Completed
Innovate UK	PD 6900, Environmental impact assessment for offshore renewable energy projects – Guide	Completed
The Green Construction Board	PAS specification for measurement of infrastructure carbon	Open

5 Appendices

Appendix 5.1

BSI Standards Development committees by subject area

The table below lists the standards development committees that are run by BSI, grouped by technical subject area. Those that are ticked (✓) 'BIS contribution' are non-commercially viable committees whose work supports HMG priorities and which received a contribution towards their running costs from BIS in 2014/15.

Subject area	Technical committee reference	Committee title	BIS contribution
Built Environment Design	B/562	Security of buildings	
Built Environment Design	CB/10	Design Advisory Committee	✓
Built Environment Design	CB/500	Procurement	
Built Environment Design	CB/501	Flood risk & watercourses	
Built Environment Engineering	CB/40	Built environment engineering	✓
Chemicals	AW/81	Common names for pesticides	
Chemicals	CII/26	Reagents	
Chemicals	CII/34	Methods of test for surface active agents	
Chemicals	CII/37	Fertilisers and related chemicals	
Chemicals	CII/47	Pyrotechnic articles	✓
Chemicals	CII/59	Chemicals for drinking water treatment	
Chemicals	CII/60	Surface chemical analysis	
Chemicals	CII/61	Explosives for civil uses	
Chemicals	CII/62	Treatment of water for boilers	
Chemicals	CII/63	Chemical spill control	
Chemicals	STI/1	Pigments	
Chemicals	STI/10	Test methods for paints	
Chemicals	STI/14	Colour measurement and schedules	
Chemicals	STI/21	Paint systems and surface preparation for metallic substrates	
Chemicals	STI/28	Paint systems for non-metallic substrates	
Chemicals	STI/3	Paints, media and related products	
Chemicals	STI/33	Electrodeposited and related coatings	✓
Chemicals	STI/34	Hot dip galvanized coatings	
Chemicals	STI/36	Vitreous enamel coatings	
Chemicals	STI/40	Thermal spraying and thermally sprayed coatings	✓
Construction	B/201	Fences and gates	
Construction	B/204	Structural design of low rise buildings	
Construction	B/208	Stairs and walkways	
Construction	B/209	General building codes	
Construction	B/213	Trees	
Construction	B/3	Ad hoc co-ordination group for fibre reinforced cement products	
Construction	B/502	Aggregates	
Construction	B/503	Sanitary appliances	
Construction	B/504	Water supply	
Construction	B/505	Wastewater engineering	
Construction	B/506	Chimneys	✓
Construction	B/507	Paving units and kerbs	
Construction	B/509	Road equipment	

Subject area	Technical committee reference	Committee title	BIS contribution
Construction	B/510	Road materials	
Construction	B/511	Buildings mobile and temporary	
Construction	B/512	Ladders	✓
Construction	B/513	Construction equipment and plant and site safety	✓
Construction	B/514	Access and support equipment	
Construction	B/515	Wood preservation	
Construction	B/516	Cement and lime	
Construction	B/517	Concrete	
Construction	B/518	Structural timber	
Construction	B/519	Masonry and associated testing	✓
Construction	B/520	Glass and glazing in building	
Construction	B/522	Structural bearings	
Construction	B/523	Prefabricated components of reinforced autoclaved aerated concrete and lightweight aggregate concrete with open structure	
Construction	B/524	Precast concrete products	✓
Construction	B/525	Building and civil engineering structures	
Construction	B/526	Geotechnics	
Construction	B/538	Doors, windows, shutters, hardware and curtain walling	
Construction	B/539	Ceramic tiles and other rigid tiling	
Construction	B/540	Energy performance of materials components and buildings	
Construction	B/541	Wood based panels	
Construction	B/542	Roofing and cladding products for discontinuous laying	
Construction	B/543	Round and sawn timber	
Construction	B/544	Plastering, rendering, dry lining	
Construction	B/545	Natural stone	
Construction	B/546	Flexible sheets for waterproofing and water vapour control	
Construction	B/547	Sealants for building and construction	
Construction	B/548	Suspended ceilings	
Construction	B/549	Agricultural buildings and structures	
Construction	B/550	Raised access floors	
Construction	B/552	Spectator facilities	
Construction	B/553	Geotextiles and geomembranes	
Construction	B/554	Dimensions and Accuracy - Building construction	
Construction	B/555	Construction design, modelling and data exchange	✓
Construction	B/557	Construction products - Assessment of dangerous substances	✓
Construction	B/558	Sustainability of construction works	✓
Construction	B/559	Access to buildings for disabled people	
Construction	B/560	Conservation of tangible cultural heritage	
Construction	B/564	Noise control on building sites	
Construction	B/565	Landscape operations	
Construction	CB/-	Construction & Built Environment Sector Policy and Strategy Committee	✓
Construction	CB/-/5	CPD/CPR Policy	
Construction	CB/-/6	CEN Construction Sector Policy	
Construction	CB/101	Service Life Planning	
Construction	CB/20	Structures advisory committee	✓

Subject area	Technical committee reference	Committee title	BIS contribution
Construction	CB/203	Design & execution of steel structures	
Construction	CB/30	Construction Products Advisory Committee	✓
Construction	CB/300	Screeds and in-situ floorings	
Construction	CB/502	Maritime works	
Construction	CB/503	Drinking water and wastewater service levels	
Construction	CB/506	Water reuse	
Construction	CB/60	Site operations advisory committee	
Construction	CB/70	Facilities management advisory committee	✓
Construction	CW/35	Wallcoverings	
Construction	FMW/1	Facilities management	✓
Construction	GME/1	Preferred numbers	
Construction	GSE/30	Gas installations (1st, 2nd and 3rd family gases)	
Construction	GSE/4	Flue pipes and fittings for gas-fired appliances	
Construction	JPEL/64	Electrical installations of buildings - Joint committee	
Construction	MHE/3	Cranes and derricks	
Construction	MHE/4	Lifts, hoists and escalators	
Construction	MHE/6	Hoists of builders' type	
Construction	PRI/3	Textile floor coverings	
Construction	PRI/57	Surfaces for sports areas	
Construction	PRI/60	Resilient and Laminate Floor Coverings	
Construction	PRI/70	Elastomeric seals for joints in pipework and pipelines	
Construction	PRI/81	Cork	
Construction	PRI/88	Plastics piping systems	
Construction	PSE/10	Iron pipes and fittings	
Construction	RHE/17	Testing of air conditioning units	
Construction	RHE/2	Ventilation for buildings, heating and hot water services	✓
Construction	RHE/24	Central heating installations	
Construction	RHE/28	Domestic solid mineral fuel appliances	
Construction	RHE/6	Air or space heaters or coolers without combustion	
Construction	RHE/9	Insulated underground pipelines	
Consumer Goods	CPL/116	Safety of motor-operated electric tools	
Consumer Goods	CPL/59	Performance of household electrical appliances	✓
Consumer Goods	CPL/61	Safety of household and similar electrical appliances	✓
Consumer Goods	CPL/705	Weighing instruments	
Consumer Goods	CPL/72	Electrical control devices for household equipment and appliances	✓
Consumer Goods	CPW/172	Optics and Photonics	✓
Consumer Goods	CPW/36	Cinematography	
Consumer Goods	CPW/4	British standards for imaging	
Consumer Goods	CPW/42	Photography	
Consumer Goods	CW/11	Brushware	
Consumer Goods	CW/15	Safety of toys	
Consumer Goods	CW/17	Cutlery and table holloware	
Consumer Goods	CW/217	Cosmetics	✓
Consumer Goods	CW/29	Tableware	
Consumer Goods	CW/32	Matches and lighters	
Consumer Goods	CW/47	Materials in contact with food	

Subject area	Technical committee reference	Committee title	BIS contribution
Consumer Goods	CW/51	Self service trolleys	
Consumer Goods	CW/9	Cooking and catering containers	
Consumer Goods	FW/0	Furniture	
Consumer Goods	FW/6	Flammability performance and fire tests for furniture	
Consumer Goods	PAI/11	Methods of test for paper, board and pulps	
Consumer Goods	PAI/43	Graphic technology	
Consumer Goods	PKW/0	Packaging	
Consumer Goods	PRI/68	Hot water bottles	
Consumer Goods	STI/53	Specifications and test methods for jewellery and horology	✓
Consumer Goods	SW/56	Skateboards	
Consumer Goods	TCI/77	Ropes and cordage and fishing nets	
Consumer Goods	W/-	Consumer Products and Services Sector Policy and Strategy Committee	
Corporate Governance	BCM/1	Business continuity management	
Corporate Governance	G/1	Governance	
Corporate Governance	G/2	Anti procurement fraud	
Corporate Governance	G/3	Anti bribery	
Corporate Governance	HCS/1	Human Capital	
Corporate Governance	RM/1	Risk management	
Electrical Machinery and Components	CPL/34	Lamps and Related Equipment	
Electrical Machinery and Components	EL/1	Light and lighting applications	
Electrical Machinery and Components	EPL/80	Maritime navigation and radiocommunication equipment and systems	✓
Electrical Machinery and Components	GEL/1	Electrotechnical Terminology	
Electrical Machinery and Components	GEL/10	Fluids for electrotechnical applications	
Electrical Machinery and Components	GEL/101	Electrostatics	
Electrical Machinery and Components	GEL/104	Environmental conditions, classification and testing	
Electrical Machinery and Components	GEL/106	Human exposure to low frequency and high frequency electromagnetic radiation	
Electrical Machinery and Components	GEL/107	Process management for avionics	
Electrical Machinery and Components	GEL/109	Insulation co-ordination for low voltage equipment	
Electrical Machinery and Components	GEL/111	Electrotechnical environment committee	✓
Electrical Machinery and Components	GEL/112	Evaluation and qualification of electrical insulating materials and systems	
Electrical Machinery and Components	GEL/15	Solid electrical insulating materials	
Electrical Machinery and Components	GEL/20	Electric cables	
Electrical Machinery and Components	GEL/210	EMC - Policy committee	
Electrical Machinery and Components	GEL/28	Electrical Insulation Co-ordination	
Electrical Machinery and Components	GEL/3	Documentation and graphical symbols	
Electrical Machinery and Components	GEL/600	Earthing	
Electrical Machinery and Components	GEL/603	Cathodic protection	
Electrical Machinery and Components	GEL/605	Pressure gauges and switches	
Electrical Machinery and Components	GEL/606	Qualification of electrical contractors	
Electrical Machinery and Components	GEL/65	Measurement and control	
Electrical Machinery and Components	GEL/7	Overhead electrical conductors	
Electrical Machinery and Components	GEL/70	Protective enclosures of electrical apparatus	

Subject area	Technical committee reference	Committee title	BIS contribution
Electrical Machinery and Components	GEL/81	Protection against lightning	
Electrical Machinery and Components	GEL/93	Design automation	
Electrical Machinery and Components	JPEL/18	Electrical installations of ships and of mobile and fixed offshore units	
Electrical Machinery and Components	PEL/121	Switchgear and Controlgear and their assemblies for low voltage	✓
Electrical Machinery and Components	PEL/14	Power transformers	✓
Electrical Machinery and Components	PEL/17	Switchgear, controlgear, and HV-LV co-ordination	
Electrical Machinery and Components	PEL/2	Rotating electrical machinery	✓
Electrical Machinery and Components	PEL/21	Secondary cells and batteries	
Electrical Machinery and Components	PEL/23	Electrical accessories	
Electrical Machinery and Components	PEL/32	Fuses	
Electrical Machinery and Components	PEL/38	Instrument transformers	
Electrical Machinery and Components	PEL/78	Tools for live working	✓
Electrical Machinery and Components	PEL/85	Measuring equipment for electrical and electromagnetic quantities	
Electrical Machinery and Components	PEL/96	Small transformers	
Electronics	AMT/9	Printed Electronics	
Electronics	EPL/100	Audio, video and multimedia systems and equipment	
Electronics	EPL/103	Transmitting equipment for radio communication	
Electronics	EPL/108	Safety of electronic equipment within the field of audio/video, information technology and communication technology	
Electronics	EPL/278	Intelligent transport systems	✓
Electronics	EPL/29	Electroacoustics	
Electronics	EPL/40X	Capacitors and resistors for electronic equipment	
Electronics	EPL/46	Cables, wires and waveguides, radio frequency connectors and accessories for communication and signalling	
Electronics	EPL/47	Semiconductors	
Electronics	EPL/48	Electromechanical components and mechanical structures for electronic equipment	
Electronics	EPL/49	Piezoelectric devices for frequency control and selection	
Electronics	EPL/501	Electronic Assembly Technology	
Electronics	EPL/51	Transformers, inductors, magnetic components and ferrite materials	
Electronics	EPL/526	Road traffic control signals	
Electronics	EPL/66	Safety of measuring, control and laboratory equipment	
Electronics	EPL/76	Optical radiation safety and laser equipment	
Electronics	EPL/87	Ultrasonics	
Electronics	EPL/94	General purpose relays and reed contact units	
Electronics	EPL/97	Aeronautical ground lighting	
Electronics	GEL/86	Fibre optics	
Electronics	GEL/SB4	Infrastructure of telecommunications networks	
Electronics	L/-/90	Super Conductivity	
Energy	CPL/35	Primary cells	
Energy	ESL/120	Electrical Energy Storage	
Energy	GEL/105	Fuel cell technologies	✓
Energy	GEL/8	Systems Aspects for Electrical Energy Supply	✓
Energy	GEL/82	Photovoltaic Energy Systems	✓

Subject area	Technical committee reference	Committee title	BIS contribution
Energy	GSE/-/4	To brief SFG_U and consider horizontal issues affecting gas utilization	
Energy	GSE/-/5	To brief SFG_I and consider horizontal issues affecting gas infrastructure	
Energy	GSE/2	Gas industry terms	
Energy	GSE/25	Gas Meters	✓
Energy	GSE/32	Gas governors	
Energy	GSE/33	Gas supply	
Energy	GSE/38	Installation and equipment for LNG	
Energy	GSE/40	Gas supply equipment for natural gas vehicles	
Energy	L/13	Smart Grid policy	✓
Energy	NCE/2	Radiation protection and measurement	
Energy	NCE/8	Reactor instrumentation	
Energy	NCE/9	Nuclear fuel cycle technology	
Energy	PEL/11	Overhead Lines	
Energy	PEL/114	Marine energy - Wave, tidal and other water current converters	✓
Energy	PEL/13	Electricity Meters	✓
Energy	PEL/205	Mains signalling	
Energy	PEL/213	Cable management	
Energy	PEL/22	Power electronics	
Energy	PEL/27	Electroheating	
Energy	PEL/33	Power capacitors	
Energy	PEL/36	Insulators for power systems	
Energy	PEL/37	Surge Arresters - High Voltage	
Energy	PEL/42	Testing techniques for high voltages and currents	
Energy	PEL/57	Power systems management and associated information exchange	✓
Energy	PEL/73	Short circuit currents	
Energy	PEL/88	Wind turbines	✓
Energy	PEL/894	Remote Meter Reading	✓
Energy	PEL/95	Measuring relays and protection systems	
Energy	PEL/99	Erection and operation of power installations	
Energy	PSE/17	Materials and equipment for petroleum, petrochemical and natural gas industries	
Energy	PSE/265	Carbon Capture Transportation and Storage	✓
Energy	PSE/4	Identification of piping systems	
Energy	PSE/6	Hose clips	
Energy	PTI/12	Petroleum Measurement and Sampling	
Energy	PTI/13	Petroleum Testing and Terminology	
Energy	PTI/15	Natural Gas and Gas Analysis	
Energy	PTI/16	Solid mineral fuels	
Energy	PTI/17	Solid biofuels	
Energy	PTI/2	Liquid Fuels	✓
Energy	PTI/20	Sustainability of bioenergy	✓
Energy	PTI/7	Lubricants and process fluids	
Energy	PVE/15	Storage Tanks for the Petroleum Industry	
Energy	PVE/19	LPG containers and their associated fittings	
Energy	RHE/31	Calorific values of fuels; and thermographs	

Subject area	Technical committee reference	Committee title	BIS contribution
Energy	SEM/1	Energy Management	✓
Energy	SMG/1	Smart Meter Group	✓
Environment/CSR	B/508	B/508Waste Management	
Environment/CSR	BDY/1	Biodiversity management	
Environment/CSR	E/-	Engineering Sector Policy & Strategy Committee	
Environment/CSR	E/-/20	Power engineering steering committee	
Environment/CSR	EH/1	Acoustics	
Environment/CSR	EH/2	Air quality	
Environment/CSR	EH/3	Water quality	✓
Environment/CSR	EH/4	Soil quality	✓
Environment/CSR	EH/5	Sludge characterization	✓
Environment/CSR	EH/6	Effects of materials on water quality	
Environment/CSR	EH/7	Climate Change Strategy	
Environment/CSR	H/-/4	Environmental testing programmes	✓
Environment/CSR	RHE/25	Solar Heating	✓
Environment/CSR	SDS/1	Sustainable development Co-ordination Committee	✓
Environment/CSR	SES/1	Environmental management	
Fire	FSH/0	Strategic Policy Group for Fire Standardization	✓
Fire	FSH/1	Fire Safety Cables	
Fire	FSH/12	Fire detection and alarm systems	
Fire	FSH/14	Fire precautions in buildings	
Fire	FSH/16	Hazards to life from fire	✓
Fire	FSH/17	Fire brigade equipment	✓
Fire	FSH/18	Fixed fire fighting systems	✓
Fire	FSH/19	Fire Precautions in Railway Transport	
Fire	FSH/2	Fire extinguishers	
Fire	FSH/21	Reaction to fire tests	
Fire	FSH/22	Fire resistance tests	✓
Fire	FSH/24	Fire safety engineering	
Fire	FSH/25	Smoke, heat control systems and components	✓
Fire	FSH/9	Fire terminology	
Fire	FSS/0	Fire safety and security systems	✓
Fire	GEL/89	Fire hazard testing	✓
Fire	PH/14	Firefighters' personal protective equipment	
Fire	PH/4	Respiratory protection	✓
Food and Drink, Agriculture	AGE/15	Equipment for crop protection and application of liquid fertilizer	
Food and Drink, Agriculture	AGE/20	Powered lawn and garden equipment	
Food and Drink, Agriculture	AGE/29	Forestry machinery	
Food and Drink, Agriculture	AGE/30	Irrigation and drainage equipment	
Food and Drink, Agriculture	AGE/32	Agricultural implements and trailers	
Food and Drink, Agriculture	AGE/6	Agricultural tractors and forestry machinery	
Food and Drink, Agriculture	AW/-/2	Food Technical Committee Chairmen	
Food and Drink, Agriculture	AW/1	Nursery stock	
Food and Drink, Agriculture	AW/10	Animal feeding stuffs	
Food and Drink, Agriculture	AW/100	Agriculture and food	
Food and Drink, Agriculture	AW/12	Sensory analysis	

Subject area	Technical committee reference	Committee title	BIS contribution
Food and Drink, Agriculture	AW/15	Coffee	
Food and Drink, Agriculture	AW/17	Cleaning and disinfection of dairy equipment	
Food and Drink, Agriculture	AW/20	Topsoil, other growing media and turf	
Food and Drink, Agriculture	AW/21	Fruit and vegetables juices	
Food and Drink, Agriculture	AW/22	Milk tankers	
Food and Drink, Agriculture	AW/234	Fisheries and Aquaculture	
Food and Drink, Agriculture	AW/24	Farm milk tanks	
Food and Drink, Agriculture	AW/275	Food analysis - Horizontal methods	
Food and Drink, Agriculture	AW/307	Oilseeds, animal and vegetable fats and oils and their by-products	
Food and Drink, Agriculture	AW/32	Milking machine installations	
Food and Drink, Agriculture	AW/4	Cereals and pulses	
Food and Drink, Agriculture	AW/40	Tobacco and tobacco products	
Food and Drink, Agriculture	AW/415	Sustainable and traceable cocoa	✓
Food and Drink, Agriculture	AW/425	Halal Food	
Food and Drink, Agriculture	AW/5	Chemical analysis of milk and milk products	
Food and Drink, Agriculture	AW/54	Essential oils	
Food and Drink, Agriculture	AW/6	Chemical analysis of meat and meat products	
Food and Drink, Agriculture	AW/8	Tea	
Food and Drink, Agriculture	AW/9	Microbiology	
Food and Drink, Agriculture	AW/90	Quality systems for the food industry	
Food and Drink, Agriculture	AW/91	Allergens	
Food and Drink, Agriculture	CW/158	Beverage dispensing systems	
Health & Safety	EXL/23	Explosion and fire precautions in industrial and chemical plant	
Health & Safety	EXL/31	Equipment for explosive atmospheres	
Health & Safety	FSM/1	Forensic Science Processes	✓
Health & Safety	GME/27	Safety in school workshops	
Health & Safety	HCM/1	Health risk assessment of chemicals	
Health & Safety	HS/1	Occupational health and safety management	
Health & Safety	MCE/23	Safety of metal producing mills	
Health & Safety	MCE/3	Safeguarding of machinery	
Health & Safety	PH/1	Safety, protective and occupational footwear	
Health & Safety	PH/2	Eye protection	✓
Health & Safety	PH/3	Protective clothing	✓
Health & Safety	PH/5	Personal Fall Protection	
Health & Safety	PH/6	Head protection	✓
Health & Safety	PH/7	Hearing protectors	
Health & Safety	PH/8	Graphical symbols	✓
Health & Safety	PH/9	Applied ergonomics	✓
Health & Safety	RHE/18	Refrigeration safety	
Health & Safety	RHE/21	Cryogenics safety	
Health & Safety	SME/32	Ships and marine technology - Steering committee	✓
Healthcare	CH/100	Healthcare and medical equipment (European and International)	✓
Healthcare	CH/101	Healthcare and medical equipment (National)	
Healthcare	CH/106	Dentistry	
Healthcare	CH/121	Anaesthetic and respiratory equipment	✓
Healthcare	CH/150	Implants for surgery	✓

Subject area	Technical committee reference	Committee title	BIS contribution
Healthcare	CH/157	Mechanical contraceptives	✓
Healthcare	CH/168	Prosthetics and orthotics	
Healthcare	CH/170	Surgical instruments	
Healthcare	CH/172	Ophthalmic optics	✓
Healthcare	CH/173	Assistive products for persons with disability	✓
Healthcare	CH/194	Biological evaluation of medical devices	
Healthcare	CH/198	Sterilization and Associated Equipment and Processes	
Healthcare	CH/205	Non-active medical devices	✓
Healthcare	CH/210	Quality management and corresponding general aspects for medical devices	
Healthcare	CH/212	IVDs	
Healthcare	CH/216	Chemical disinfectants and antiseptics	
Healthcare	CH/239	Rescue systems	
Healthcare	CH/240	First Aid Kits	
Healthcare	CH/403	Aesthetic Surgery and Aesthetic Non-Surgical Medical Services	
Healthcare	CH/62	Electrical Equipment in Medical Practice	
Healthcare	CH/84	Catheters and syringes	
Healthcare	CII/58	Biotechnology	
Healthcare	RGM/1	Regenerative medicine	✓
ICT	AMT/-/2	Robots and robotic devices	✓
ICT	AMT/-/4	Biomimetics	
ICT	AMT/4	Industrial data and manufacturing interfaces	✓
ICT	AMT/5	Industrial architectures and integration frameworks	
ICT	AMT/7	Industrial communications: process measurement and control, including fieldbus	
ICT	AMT/8	Additive manufacturing	
ICT	ICT/-	Information and communications technology co-ordination and strategy committee	
ICT	ICT/-/1	Information systems co-ordination	✓
ICT	ICT/-/2	Automated Manufacturing Technology Co-ordination ISO/TC184	
ICT	ICT/-/4	eBusiness coordination committee	
ICT	ICT/-/5	European ICT co ordination committee for CEN, CENELEC, ETSI and ICTSB	
ICT	ICT/-/6	ICT Accessibility Co-ordination	✓
ICT	ICT/-/7	Internet filtering	
ICT	IDT/1	Document Management Applications	✓
ICT	IDT/2	Information and documentation	
ICT	IST/-/99	Participating IST members	
ICT	IST/12	Financial services	
ICT	IST/15	Software and systems engineering	
ICT	IST/15/-/9	Information technology asset management	
ICT	IST/17	Cards and personal identification	
ICT	IST/3	IT Printers and Cartridges	
ICT	IST/31	Computer graphics, image processing and environmental data representation	✓
ICT	IST/33	IT - Security techniques	

Subject area	Technical committee reference	Committee title	BIS contribution
ICT	IST/34	Automatic identification and data capture techniques	
ICT	IST/35	Health informatics	
ICT	IST/36	Geographic information	
ICT	IST/37	Coding of picture, audio, multimedia and hypermedia information	✓
ICT	IST/38	Cloud Computing and Distributed Platforms	✓
ICT	IST/40	Data management and interchange	
ICT	IST/41	Document description and processing language	
ICT	IST/43	Information technology for learning, education and training	✓
ICT	IST/44	Biometrics	✓
ICT	IST/45	Web Accessibility	
ICT	IST/46	Sustainability for, and by IT	✓
ICT	IST/5	Programming languages, their environments and system software interfaces	
ICT	IST/6	Data communications	✓
ICT	IST/60	IT Service Management and IT Governance	
ICT	IST/70	Sensor Networks	✓
ICT	JTISC/-	Joint TickIT industry steering committee	
ICT	TCT/-	Telecommunications Sector Assembly	
ICT	TCT/001	UK ETSI work allocation panel	
ICT	TCT/2	Analogue telecommunication networks	
ICT	TCT/301	UK ETSI - Radio matters	
ICT	TCT/3GP	3rd generation partnership project	
ICT	TCT/6	Digital networks	
ICT	TCT/7	Telecommunications - Installation requirements	
ICT	TCT/AAT	Access and terminals	
ICT	TCT/BRN	Broadband radio access network	
ICT	TCT/DEC	Digital enhanced cordless telecoms	
ICT	TCT/ECM	Standardizing information and communications systems	
ICT	TCT/EEN	Environmental engineering	
ICT	TCT/ERM	Electromagnetic and radio spectrum matters	
ICT	TCT/ERM/11	ERM Revision of ETS 300 328	
ICT	TCT/ERM/17	TG17 - Broadcast	
ICT	TCT/ERM/25	TG25 - Aeronautical	
ICT	TCT/ERM/26	TG26 - Maritime	
ICT	TCT/ERM/32	Private mobile radio	
ICT	TCT/ERM/37	ERM intelligent transport	
ICT	TCT/ERM/39	Code division multiple access (CDMA)	
ICT	TCT/ERM/EM	Electromagnetic compatibility	
ICT	TCT/ERM/GSMO	ERM/MSG Joint group on GS	
ICT	TCT/ERM/SR	Short Range Devices (TG23, 28, 29, 30, 34, 36)	
ICT	TCT/ERM/TF	Electromagnetic Task Force for ERM & MSG for harmonised Standards for IMT - 2000	
ICT	TCT/ERM/TGTL	Tank level probing radar	
ICT	TCT/ERM/UW-A	Ultra wide band (TG31A)	
ICT	TCT/ERM/UWBC	Ultra wide band (TG31B, TG31C)	
ICT	TCT/HFS	Human factors	

Subject area	Technical committee reference	Committee title	BIS contribution
ICT	TCT/JTC	Joint Technical Committee for Broadcast (EBU/CENELEC/ETSI)	
ICT	TCT/MSG	Mobile standards group	
ICT	TCT/RTC	Railway Telecommunications	
ICT	TCT/SES	Satellite earth stations and systems	
ICT	TCT/SES/FI	Satellite earth stations and systems - Fixed	
ICT	TCT/TIS	TISPAN	
ICT	TCT/TM4	Transmission and multiplexing 4	
ICT	TCT/TM4/MP	Point to multipoint	
ICT	TCT/TM4/PP	Point to point	
ICT	TCT/TMX	Transmission and multiplexing (except tm4)	
ICT	TCT/TTR	Terrestrial trunked radio	
Infrastructure	CB/50	Infrastructure	✓
Lab Equip & Processes	CII/9	Microbeam analysis	
Lab Equip & Processes	LBI/1	Laboratory safety and equipment	
Lab Equip & Processes	LBI/16	Glass electrodes and pH scale	
Lab Equip & Processes	LBI/30	Cleanroom technology	
Materials	BTI/1	Biotechnologies	
Materials	CII/24	Raw materials for the aluminium industry	
Materials	I/-	Miscellaneous standards materials and chemicals	
Materials	I/-/1	Safety of Candles and Related Products	
Materials	I/-/2	Brownfield developments	
Materials	ISE/1	Iron and steel standards co-ordinating committee	
Materials	ISE/100	Steel, General Issues	
Materials	ISE/101	Test methods for metals	
Materials	ISE/102	Methods of Chemical Analysis for Iron and Steel	
Materials	ISE/103	Structural Steels Other Than Reinforcements	
Materials	ISE/104	Concrete Reinforcing and Pre-Stressing Steels	
Materials	ISE/105	Steels for Heat Treatment, Alloy Steels, Free-Cutting Steels and Stainless Steels	
Materials	ISE/106	Wire Rod and Wire	
Materials	ISE/107	Steels for Pressure Purposes	
Materials	ISE/108	Magnetic Alloys and Steels	
Materials	ISE/109	Coated and Uncoated Flat Products to be Used for Cold Forming	
Materials	ISE/110	Steel Tubes, and Iron and Steel Fittings	
Materials	ISE/111	Steel Castings and Forgings	
Materials	ISE/29	Tinplate and blackplate	
Materials	ISE/58	Iron ores	
Materials	ISE/65	Sintered metal components	
Materials	ISE/NFE/8	Corrosion of metals and alloys	
Materials	MI/1	Materials Industries Standards Co-ordination Committee	✓
Materials	MI/2	Bio-based products	✓
Materials	NFE/22	Lead and lead alloys	
Materials	NFE/27	Tin and tin alloys	
Materials	NFE/34	Copper and copper alloys	
Materials	NFE/35	Light metals and their alloys	
Materials	NFE/36	Copper lead and zinc ores and concentrates	

Subject area	Technical committee reference	Committee title	BIS contribution
Materials	NFE/8	Zinc	
Materials	NTI/1	Nanotechnologies	✓
Materials	PRI/-/1	GB Co-ordination for International work on plastics standards	✓
Materials	PRI/-/2	GB Co-ordination for International work on rubber standards	✓
Materials	PRI/10	Terminology for rubbers and plastics	✓
Materials	PRI/20	Accuracy of rubber and plastics test equipment	
Materials	PRI/21	Testing of plastics	
Materials	PRI/22	Physical testing of rubber	
Materials	PRI/23	Test methods for rubber and non-black compounding ingredients	
Materials	PRI/24	Testing of rigid and flexible cellular materials	
Materials	PRI/26	Burning behaviour of plastics and rubbers	✓
Materials	PRI/42	Fibre reinforced thermosetting plastics and preregs	
Materials	PRI/5	UK steering committee for CEN/TC 210 GRP tanks	
Materials	PRI/50	Rubber - Raw, natural and synthetic, including latex and carbon black	
Materials	PRI/52	Adhesives	
Materials	PRI/54	Vulcanised rubber compounds	
Materials	PRI/62	Static thermoplastics tanks	
Materials	PRI/71	Flexible cellular materials	
Materials	PRI/72	Rigid cellular materials	
Materials	PRI/73	Industrial rubber products	
Materials	PRI/75	Plastics and rubber film and sheets	
Materials	PRI/76	Laminated sheet for decorative purposes	
Materials	PRI/80	Welding thermoplastics	
Materials	PRI/82	Thermoplastic materials	
Materials	PRI/89	Plastics recycling	
Materials	PRI/90	Rubber and rubber products - Environmental aspects	✓
Materials	RPI/1	Refractory products and materials	
Materials	RPI/13	Advanced technical ceramics	
Materials	TCI/100	Co-ordination of activities in textiles and clothing	
Materials	TCI/24	Physical testing of textiles	
Materials	TCI/33	Textile machinery	
Materials	TCI/66	Apparel and interior textiles	✓
Materials	TCI/69	Footwear, leather and coated fabrics	
Materials	TCI/80	Chemical testing of textiles	
Materials	TCI/81	Colour fastness and colour measurement of textiles	
Materials	TCI/82	Textiles care labelling, dry cleaning, domestic laundering and drying	
Mechanical Machinery & Components	FME/9	Fasteners	
Mechanical Machinery & Components	GME/21	Mechanical vibration, shock and condition monitoring	✓
Mechanical Machinery & Components	GME/24	Grease guns and cartridges	
Mechanical Machinery & Components	GSE/19	Catering equipment (gas)	
Mechanical Machinery & Components	GSE/20	Non-domestic space heaters (gas)	
Mechanical Machinery & Components	GSE/22	Safety and control devices for gas and oil burners and gas burning appliances	✓
Mechanical Machinery & Components	GSE/24	Dedicated LPG appliances	
Mechanical Machinery & Components	GSE/26	Test gases	
Mechanical Machinery & Components	GSE/27	Automatic gas and oil burners	

Subject area	Technical committee reference	Committee title	BIS contribution
Mechanical Machinery & Components	GSE/29	Gas-fired central heating boilers (domestic and non-domestic) and domestic gas-fired water heaters	✓
Mechanical Machinery & Components	GSE/35	Gas cooking appliances (domestic)	✓
Mechanical Machinery & Components	GSE/36	Independent gas-fired space heaters	✓
Mechanical Machinery & Components	GSE/37	Gas fired sorption and laundering appliances	
Mechanical Machinery & Components	GSE/42	Gas fittings and connections including metal hose and hose assemblies	
Mechanical Machinery & Components	MCE/1	Chains and chain sprockets for power transmission and conveyors	
Mechanical Machinery & Components	MCE/10	Belts & Pulley Drive	
Mechanical Machinery & Components	MCE/11	Fluid seals and their housings	
Mechanical Machinery & Components	MCE/12	Plain bearings	
Mechanical Machinery & Components	MCE/13	Steam turbines	
Mechanical Machinery & Components	MCE/14	RIC engines	
Mechanical Machinery & Components	MCE/15	Hydraulic turbines	
Mechanical Machinery & Components	MCE/16	Gas turbines	
Mechanical Machinery & Components	MCE/17	Fans	
Mechanical Machinery & Components	MCE/18	Fluid power systems and components	
Mechanical Machinery & Components	MCE/19	Centrifuges	
Mechanical Machinery & Components	MCE/20	Aerial ropeways	
Mechanical Machinery & Components	MCE/21	Filters for gases and liquids	
Mechanical Machinery & Components	MCE/22	Engines for road vehicles	
Mechanical Machinery & Components	MCE/5	Gears	
Mechanical Machinery & Components	MCE/6	Pumps and pump testing	✓
Mechanical Machinery & Components	MCE/7	Rolling bearings	
Mechanical Machinery & Components	MCE/8	Compressors, pneumatic tools, pneumatic machines and vacuum technology	
Mechanical Machinery & Components	MHE/1	Chains and fittings	
Mechanical Machinery & Components	MHE/12	Lifting Platforms	
Mechanical Machinery & Components	MHE/14	Rail dependent storage and retrieval equipment - Safety	
Mechanical Machinery & Components	MHE/15	Textile slings	
Mechanical Machinery & Components	MHE/16	Load restraint assemblies	
Mechanical Machinery & Components	MHE/2	Wire ropes	
Mechanical Machinery & Components	MHE/31	Automatic power operated pedestrian doors	
Mechanical Machinery & Components	MHE/7	Industrial trucks	
Mechanical Machinery & Components	MHE/8	Steel shelving, bins and lockers	
Mechanical Machinery & Components	MHE/9	Continuous mechanical handling equipment	
Mechanical Machinery & Components	MRE/1	Mining mechanical equipment and machinery	
Mechanical Machinery & Components	MRE/3	Mining electrical equipment	
Mechanical Machinery & Components	MTE/1	Machine tools	✓
Mechanical Machinery & Components	MTE/12	Tools for pressing and moulding	
Mechanical Machinery & Components	MTE/13	Grinding wheels, abrasive tools, paper and cloths, and powders	
Mechanical Machinery & Components	MTE/15	Hand tools	
Mechanical Machinery & Components	MTE/18	Tools tips and inserts for cutting applications	
Mechanical Machinery & Components	MTE/20	Power driven saws	
Mechanical Machinery & Components	MTE/21	Cartridge-operated fixing tools	
Mechanical Machinery & Components	MTE/23	Woodworking machines	
Mechanical Machinery & Components	PRI/66	Rubber and plastics tubing, hoses and hose assemblies	✓
Mechanical Machinery & Components	PRI/67	Conveyor belts	

Subject area	Technical committee reference	Committee title	BIS contribution
Mechanical Machinery & Components	PRI/69	Components and fluids for vehicle braking systems	
Mechanical Machinery & Components	PSE/1	Tubes for water well casing	
Mechanical Machinery & Components	PSE/14	Bellows assemblies	
Mechanical Machinery & Components	PSE/15	Flanges	
Mechanical Machinery & Components	PSE/18	Industrial valves, steam traps, actuators and safety devices against excessive pressure	
Mechanical Machinery & Components	PVE/-/1	Pressure equipment briefing committee	
Mechanical Machinery & Components	PVE/1	Pressure Vessels	
Mechanical Machinery & Components	PVE/10	Piping systems	
Mechanical Machinery & Components	PVE/17	Air receivers - General	
Mechanical Machinery & Components	PVE/18	Cryogenic vessels	
Mechanical Machinery & Components	PVE/2	Water Tube And Shell Boilers	
Mechanical Machinery & Components	PVE/20	Cast iron and mild steel sectional tanks	
Mechanical Machinery & Components	PVE/3	Gas containers	✓
Mechanical Machinery & Components	PVE/393	Equipment for storage tanks and filling stations	
Mechanical Machinery & Components	RHE/10	Heating boilers	
Mechanical Machinery & Components	RHE/12	Calorifiers	
Mechanical Machinery & Components	RHE/13	Oil burning equipment	
Mechanical Machinery & Components	RHE/16	Performance requirements for control systems	
Mechanical Machinery & Components	RHE/19	Commercial refrigerated food cabinets (cold room and display cases)	
Mechanical Machinery & Components	RHE/22	Underfeed stokers	
Mechanical Machinery & Components	RHE/26	Pressure vessels for refrigerating systems	
Mechanical Machinery & Components	RHE/30	Heat exchangers	
Mechanical Machinery & Components	RHE/4	Testing of refrigerant compressors	
Mechanical Machinery & Components	RHE/7	Expansion vessels using an internal diaphragm	
Mechanical Machinery & Components	TDW/4	Technical Product Realization	
Metrology	CPI/113	Hydrometry	✓
Metrology	CPI/29	Humidity and temperature conditioning requirements	
Metrology	CPI/30	Measurement of fluid flow in closed conduits	✓
Metrology	LBI/37	Particle characterization including sieving	
Metrology	LBI/50	Fine Bubble Technology (FBT)	
Quality	AUS/1	Revision of ISO 19011	
Quality	CAS/1	Conformity assessment	
Quality	DS/1	Dependability	
Quality	KMS/1	Knowledge management systems	
Quality	MS/1	Work study and organization and methods	
Quality	MS/2	Project, programme and portfolio management	
Quality	QS/1	Quality management and quality assurance procedures	
Quality	RMI/1	Reference Materials	
Quality	SS/1	Statistical terminology and symbols	
Quality	SS/2	Statistical Interpretation of Data	
Quality	SS/3	Application of statistical methods in standardisation	
Quality	SS/4	Statistical Process Management	
Quality	SS/5	Acceptance sampling schemes	
Quality	SS/6	Precision of test methods	
Quality	SS/7	General metrology, quantities, units and symbols	✓

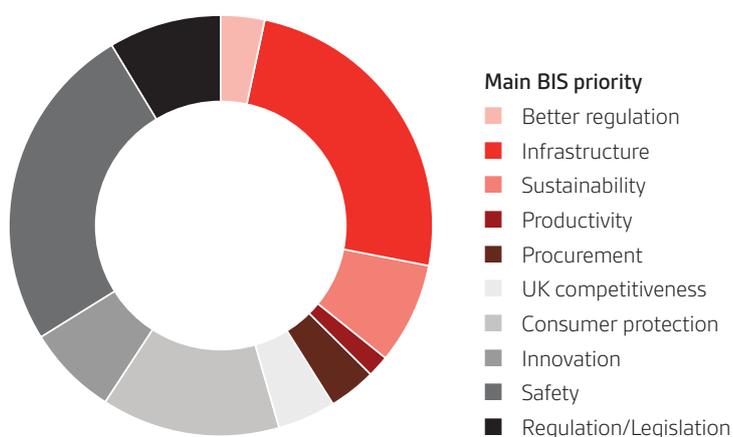
Subject area	Technical committee reference	Committee title	BIS contribution
Quality	TS/1	Terminology	
Safety	CW/1	Safety of child use and child care products	✓
Safety	CW/2	Safety of child use and child care horizontal issues	✓
Safety	SW/136	Sports, playground and other recreational equipment	✓
Safety	SW/65	Children's playground equipment	
Security	AMS/1	Asset management	
Security	DEF/1	Defence standardization	
Security	GW/1	Electronic security systems	
Security	GW/2	Secure storage of cash, valuables and data media	✓
Security	GW/3	Manned security services	
Security	GW/8	Security Managements Systems in Complex Environments	
Security	SSM/1	Societal security management	✓
Services	DES/1	Design for All	
Services	FSW/1	Funeral services	
Services	IMS/1	Innovation management	✓
Services	MS/3	Logistics in manufacturing and distribution	
Services	MS/4	Design management systems	
Services	MS/6	Methodologies for business process improvement using statistical methods	
Services	S/-	Management Systems Sector Policy and Strategy Committee	
Services	SVS/-	Service standardization strategy group	
Services	SVS/0	Customer service - Fundamental principles	
Services	SVS/1	Business Services	
Services	SVS/10	Learning Services Providers	✓
Services	SVS/11	Transport services	
Services	SVS/12	Brand Valuation Services	
Services	SVS/14	Pest management services	
Services	SVS/15	E-services	
Services	SVS/18		
Services	SVS/2	Tourism services	✓
Services	SVS/20	Automotive Services	
Services	SVS/3	Market research	
Services	SVS/4	Postal services	
Services	SVS/6	Financial services	✓
Services	SVS/7	Property Services	
Services	SVS/8	Community Services	
Services	SVS/9	Recruitment services	
Transport	ACE/00	Aerospace drafts	
Transport	ACE/1	International and European Aerospace Policy and Processes	
Transport	ACE/12	Aerospace fasteners and fastening systems	
Transport	ACE/57	Air cargo and ground support equipment	
Transport	ACE/58	Environmental and operating conditions for aircraft equipment	
Transport	ACE/6	Aerospace avionic electrical and fibre optic technology	
Transport	ACE/61	Metallic materials for aerospace purposes	
Transport	ACE/65	Non-metallic materials for aerospace purposes	
Transport	ACE/66	Aerospace electromagnetic compatibility	

Subject area	Technical committee reference	Committee title	BIS contribution
Transport	ACE/68	Space systems and operations	✓
Transport	ACE/69	Aerospace hydraulic systems, fluids and components	
Transport	AUE/-/1	International work on road vehicles	✓
Transport	AUE/1	Vehicle lighting and signalling	
Transport	AUE/11	Braking systems	✓
Transport	AUE/12	Safety related to occupants	✓
Transport	AUE/13	Commercial and public service vehicles	
Transport	AUE/14	Motor cycles and mopeds	✓
Transport	AUE/15	Safety related to vehicles	
Transport	AUE/16	Data Communication (Road Vehicles)	✓
Transport	AUE/17	Vehicle security	✓
Transport	AUE/18	Tanks for the transport of dangerous goods	✓
Transport	AUE/20	Vehicle on-board diagnostics, repair and maintenance information	✓
Transport	AUE/3	Renovation of tyres for motor vehicles	
Transport	AUE/32	Electrical and electronic components and general system aspects (Road vehicles)	
Transport	AUE/4	Tyres and wheels for motor vehicles	✓
Transport	AUE/7	Automobile occupant restraint systems	✓
Transport	AUE/9	Automobile details and accessories	
Transport	GEL/9	Railway Electrotechnical Applications	
Transport	GME/25	Cycles	
Transport	GME/33	Small craft	✓
Transport	PEL/69	Electric vehicles	✓
Transport	RAE/1	Railway Applications	
Transport	RAE/2	Railway Applications - Track	
Transport	RAE/3	Railway Applications - Rolling Stock Products	
Transport	RAE/4	Railway Applications - Rolling stock systems	
Transport	TW/1	Freight containers and swap bodies	
Welding	WEE/-/1	Briefing committee for welding	
Welding	WEE/1	Definitions and symbols for welding	
Welding	WEE/17	Metal-arc welding of steel	
Welding	WEE/18	Gas welding and cutting appliances	
Welding	WEE/19	Brazing and braze welding	
Welding	WEE/2	Destructive Testing of Welds	
Welding	WEE/21	Pipework welding	
Welding	WEE/28	Inert-gas arc welding	
Welding	WEE/29	Resistance welding	
Welding	WEE/36	Qualification of welding personnel and welding procedures	
Welding	WEE/37	Acceptance levels for flaws in welds	
Welding	WEE/39	Welding consumables	
Welding	WEE/40	Health and safety in welding	✓
Welding	WEE/42	Prefabrication Primers for Welding	
Welding	WEE/43	Welding of steel for concrete reinforcement	
Welding	WEE/45	Welding of stainless steel	
Welding	WEE/46	Non-destructive testing	
Welding	WEE/6	Electric arc welding equipment	

Appendix 5.2

Outputs of committees supported by Standards Development funding

The chart below shows the 664 published standards from committees with a named programme manager, by main BIS priority. In addition to this 868 standards were published as a result of access to international standardization provided by the Committee Service Centre.



Appendix 5.3

Technical assistance provided to developing countries

Work carried out by BSI's international projects team (see section 3.6).

Project title	Status	Funded by	Description
Twinning contract with Armenia: harmonization with EU standards and institution building of the State Inspectorate of Protection of Markets and Consumer Rights	Closed in year	EC	The purpose was to develop and enforce national market surveillance practices in line with internationally recognized best practices in the sector, with the aim of preparing the country for wider international agreements concerning the free movement of goods.
Twinning contract with Lebanon: support to the Ministry of Economy & Trade – Quality Unit	Closed in year	EC	Led by BSI, the aim was to increase the competitiveness of Lebanese products on international markets through better conformity to national and international technical standards, while improving the health and safety and protection of Lebanese consumers and the environment.
Technical assistance: standards drafting training for the Standards Development Department of the Central Organization for Standardization and Quality Control (COSQC) of Iraq	Started and closed in year	UNIDO	The objective was to enhance the trade capacities and performance of the Republic of Iraq and foster integration into the regional and multilateral trading system. The project also sought to enhance the technical capacities of COSQC by training technical writers of the COSQC's standards department so they can develop national standards in accordance with international best practices through two studies tours to BSI London in 2014 and 2015.

Project title	Status	Funded by	Description
Technical assistance: programme for supporting the production of basic grains for food security in Nicaragua (PAPSSAN)	Ongoing	EC	The aim is to develop the market for certified seeds at local and national level, supplying surplus certified seeds produced in other territories to meet demand in other regions, while improving food security. This will allow producers to buy fresh seed adapted to their local environmental conditions at the lowest possible prices. The project will strengthen and build the capacity of small and medium-sized producers in production, business development and processing, marketing, provision of equipment and access to services. It will also provide support and equipment to cooperatives and other organizations through financing investments in equipment and infrastructure required for the production, processing and marketing of seeds.
Technical assistance: support to China's Sustainable Trade and Investment System	Ongoing	EC	The overall objective is to support China's economic, trade and investment reform in line with its sustainable development path. The purpose is to provide technical assistance to strengthen the design and implementation of trade and investment policy, legislation and regulation at central and provincial level. BSI and CEN are managing delivery of Component II: Quality Infrastructure/Technical Barriers to Trade, which aims to: <ul style="list-style-type: none"> 1. Improve the legislative and regulatory framework for developing new and revising old technical regulations, standards, conformity assessment, market surveillance and accreditation systems, while strengthening compliance to standards and regulation. 2. Build capacity to support China's quality infrastructure bodies, trade, sector and consumer associations, including establishing and strengthening partnerships/cooperation with international bodies and counterparts.
Technical assistance: INOGATE Technical Secretariat and integrated programme in support of the Baku Initiative and the Eastern Partnership energy objectives	Ongoing	EC	The INOGATE Programme is an international energy cooperation initiative between the EU and partner countries Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. The objective is to contribute to the progress of INOGATE partner countries to achieve Baku Initiative and the Eastern Partnership objectives. The programme supports a reduction in dependency on fossil fuels and imports, improvement of the security of energy supply and climate change mitigation.
Twinning support to the the Rwanda Standards Board to strengthen quality infrastructure and facilitate Rwandan businesses to export	Ongoing	TradeMark East Africa (TMEA)	Managed solely by BSI, this project seeks to assist the institutional development of the Rwanda Bureau of Standards by offering strategic support, while raising awareness in the nation's private sector of standards and increase capacity building in this area.

Project title	Status	Funded by	Description
Technical assistance: India Lot 1: Food Safety and SPS, Technical Regulations and Standardization, and Support to Post Clearance Audit (PCA) in Customs	Ongoing	EC	We are leading this lot and contributing to the overall objective of the Capacity Building Initiative for Trade Development (CITD) to support India in strengthening its capacity to achieve economic growth and sustainable development through further integration into the global trading system. The aim is to achieve this by increasing the safety and quality of products, while reducing costs and impediments to trade. The project addresses the need to enhance the capacity of India's trade-related regulatory institutions and enforcement systems to meet international standards and requirements and business needs, while supporting India's trade-related training institutions in strengthening their capacities.
Technical assistance: capacity building for the Ministry of Industry and Trade within the Framework of the EU-Jordan ENP Action plan	Ongoing	EC	Led by BSI, this project contributes to enhancing the institutional capacity of the Jordanian Ministry of Industry and Trade and Services (MITS) in dealing with trade and industry development in Jordan following the revised EU-Jordan Action Plan and is conducive to increased growth and job creation. The project's specific objective is to strengthen the ability of various MITS departments to address the economic challenges of Jordan in their respective fields of competence.
Twinning contract with Azerbaijan: support for the development of a modern system of standardization and technical regulations	Ongoing	EC	The purpose of this BSI-led project is to support the State Committee for Standardization, Metrology and Patents of the Republic of Azerbaijan in the development of a standardization and regulatory system that complies with European requirements and meets requirements for implementation of the WTO Technical Barriers to Trade (TBT) Agreement.
Technical assistance: support to modernization of Mongolia's standardization system	Ongoing	EC	BSI is the lead partner in this EuropeAid project to assist Mongolia in developing its standardization infrastructure. The specific objective is to support the Mongolian Government's initiative to adopt European principles, norms and standards relating to the free movement of goods through institutional capacity building. The project will provide technical assistance to the Mongolian authorities in modernizing and improving the Mongolian standardization system, notably through policy development, enacting legislative reform, standards setting and reinforcing the country's market surveillance and inspection regime. Such assistance will take the form of workshops, seminars, studies and study assignments.
Technical assistance to the EU-RGoC programme entitled 'Promotion of inclusive and sustainable growth in the agricultural sector: fisheries and livestock' in Cambodia	Ongoing	EC	The specific objective is to trigger sustainable and inclusive socio-economic growth in Cambodia's fisheries and livestock sub-sectors, through support by government, civil society and development partners in line with programme-based approach principles. Results to be achieved include: capacity building in the Ministry of Agriculture, Forestry and Fisheries on overall sector planning, monitoring and evaluation; review and recommendations concerning the agricultural sector [and sub-sector] strategies and policies development; and reinforcement of the sector's policy dialogue and aid coordination platform.

Project title	Status	Funded by	Description
Twinning contract with Egypt: building the Capacity of the Egyptian National Institute of Standards in the field of Metrology	Started in year	EC	The overall objective of this BSI-led project is to support the performance of Egyptian quality infrastructure within national reform priorities and in line with the EU and international best practices. The purpose is to contribute to legislative reform in metrology and to the strengthening of the institutional and technical capacity of the Egyptian National Institute of Standards in the field of Metrology as the primary holder of metrology in line with the relevant European best practice in standards, norms and processes.
Twinning contract with Egypt: support the Egyptian quality and regulatory environment in line with international best practice (EOS – Egyptian Organisation for Standardisation)	Started in year	EC	The objective is to support the performance of Egyptian quality infrastructure within national reform priorities and in line with the European and international best practices for building capability towards signing Agreements on Conformity Assessment and Acceptance of industrial products (ACAA) with the EU or international mutual recognition agreements. The purpose is to strengthen EOS, the Egyptian Organisation for Standardisation, towards improving its role in the regulatory framework governing the Egyptian quality infrastructure for the domain of technical regulations, standards and conformity assessment.
Technical assistance: support to the Alignment of Technical Regulations and Enhancement of the quality infrastructure in Turkmenistan	Started in year	EC	The objective is to support development of a 'business-enabling' environment by updating the approach to standards and technical regulations and quality infrastructure, improving the compatibility between Turkmen standards and technical regulations and international practices. Another key aim is to increase opportunities for market access for economic operators and the perspective of further alignment of technical regulations to WTO standards. We're lead partner on this project, which provides technical assistance to Turkmenistan towards its further participation and integration in international quality infrastructure activities, through development of capacity, adoption of modern systems and techniques of operation across the overall operations of Turkmenistan, and the sectors of standardization, certification, metrology and accreditation.
Technical assistance: enhancing capacity of sanitary and phytosanitary arrangements to facilitate trade in the Greater Mekong sub-region (Cambodia, China, Lao PDR, Myanmar, Thailand, Vietnam)	Started in year	ADB	The objective is to support the Asian Development Bank and governments of the Greater Mekong sub-region in the delivery of three outputs: an analysis of sanitary and phytosanitary issues and cooperation between customs and SPS agencies in the countries of the region; capacity development and regional cooperation mechanisms; and a monitoring and evaluation framework.



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