

# Report to the Department for Business, Energy and Industrial Strategy

Use of funding for the financial year 1 April 2020 to 31 March 2021

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## 1. Introduction

As the UK National Standards Body (NSB), the British Standards Institution (BSI) represents UK economic and social interests at the international and European standards organizations, manages the national standards-making process, and supports organizations of all sizes and sectors by developing market-led and stakeholder-relevant standards through open public consultation and full stakeholder engagement. Active participation in global standards organizations ensures that standards used to demonstrate compliance with regulations are acceptable to UK stakeholders.

Standards are the collective and distilled knowledge of a range of experts; standards promote good practice and complement regulation rather than replace it. BSI works closely with the UK government in many areas of standardization. Government representatives participate in our technical committees along with representatives from business, academia and consumer and other interest groups. Together, we ensure that products, processes, new technologies and services incorporate the needs of all interested parties using their expert knowledge.

Standards benefit many types of stakeholders:

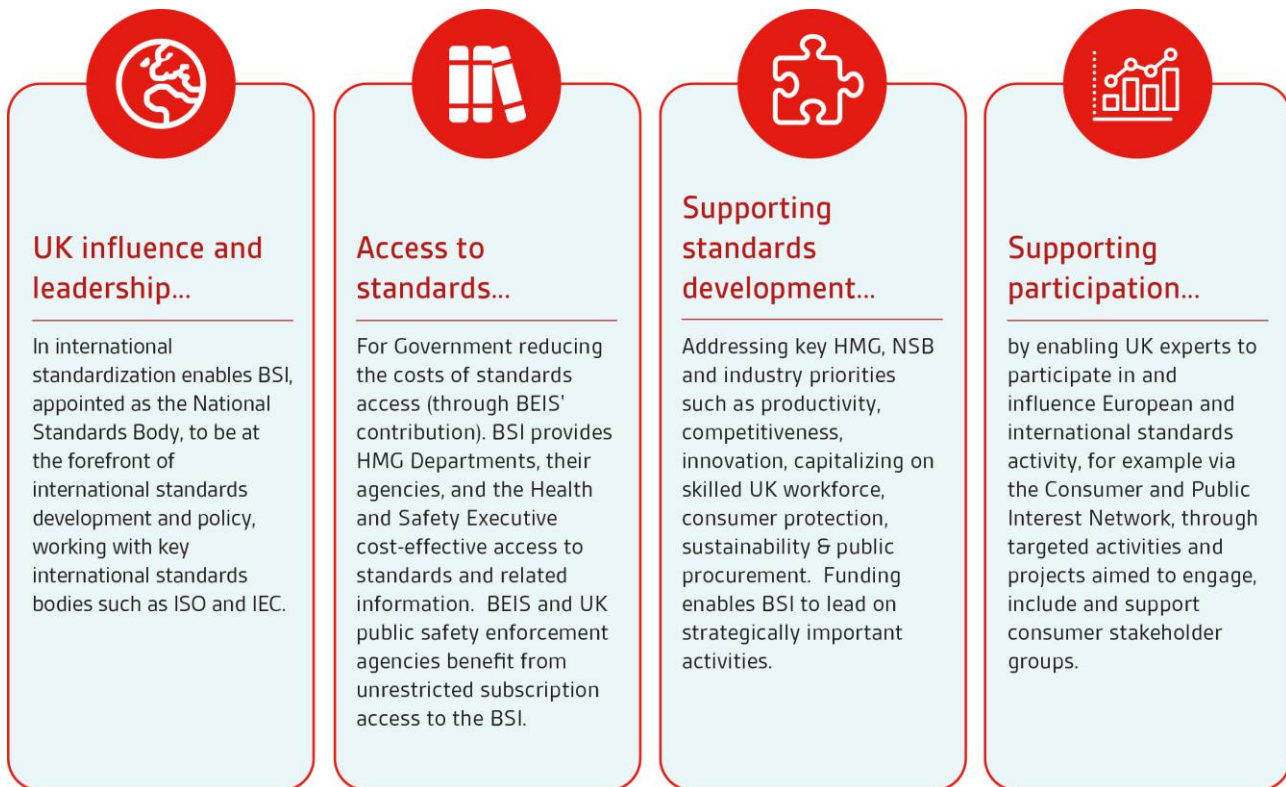
- **Regulators** – building alternative approaches to regulation, improving Government (HMG) processes, harmonizing standardization globally, increasing trust throughout the supply chain and encouraging innovative and emerging technology uptake and business growth
- **Industry** – increasing competitiveness of businesses and enabling trust to trade internationally, enhancing productivity and sustainability within business, improving profitability by offering safer products and services developed through more efficient processes, increasing management tools and business behaviours
- **Society** – putting societal issues at the forefront of standardization, such as the environment and climate change, sustainability, equality and diversity, ethics, and welfare
- **Consumers** – encouraging safer and more secure products and services from food to online services, providing more reliable products and services, and encouraging cheaper prices for products through better industry management and processes.

BSI's relationship with HMG is constituted through a memorandum of understanding (MoU)<sup>1</sup> which sets out BSI's role as the NSB. BSI receives annual funding from HMG through the Department for Business, Energy and Industrial Strategy (BEIS). The use of this funding is the focus of this report.

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<sup>1</sup> DTI (2002) *Memorandum of Understanding between the United Kingdom Government and The British Standards Institution* [Online]. Available at: [Memorandum of Understanding Between BSI and BEIS \(publishing.service.gov.uk\)](#) {Accessed on 20 May 2021}

Figure 1 shows the four main aims of the activities carried out by BSI and supported by a contribution from BEIS:



**Figure 1:** Four aims of the annual core funding grant from BEIS

This year, in addition to standards development activities through committees, eleven strategically important and timely projects were supported through this funding, including, but not limited to, appliances which use energy more efficiently, safety specifications for button (coin) batteries, market framework development to drive investment in consumer-protected decarbonization-friendly heat networks, ensure consumer virtual protection, consumer engagement with standards, diversity and inclusivity and the pipeline to designate European standards post-EU exit.

The allocation for the funding year 2020-21 was £2,482,461. This addresses three main themes, as shown in Figure 2.

**£ 1,065K**  
Subscriptions

Supporting BSI's leadership position within international standardization bodies and enabling cost-effective access to standards for HMG departments and agencies.

**£ 736K**  
Standards Development Programmes

Core funding for BSI's critical NSB role of standards development. BEIS contribution keeps BSI and the UK at the forefront of standards development aligned strategically to UK Government and prioritizes the public interest



**£ 681K**  
Strategically important projects

Targeted activities addressing current priority areas for BEIS and the UK including consumer protection, diversity & inclusion, and EU-Exit transition

**Figure 2:** Distribution of £2.4M BEIS grant for 2020-21 across the main themes (refer to Figure 1).

## 2. Summary of funding

<b>Eligible Expenditure</b>	<b>Latest allocation (£k)</b>
<b>BSI membership for HMG</b>	365
<b>BSOL access for UK Product Safety Enforcement Authorities</b>	200
<b>Contribution to membership of ISO/IEC</b>	500
<b>TOTAL (Subscriptions)</b>	<b>1,065</b>
<b>NSB activity &amp; public interest standards development</b>	700
<b>Other Priority Areas Programme</b>	398
<b>Energy Smart Appliances Programme</b>	222
<b>UK Heat Network Market PAS</b>	85
<b>Button Batteries PAS</b>	13
<b>TOTAL (Standards Development)</b>	<b>1,417</b>
<b>Assisted International Travel Scheme</b>	-
<b>Support for consumer &amp; public interest participation in standardization</b>	-
<b>TOTAL (Support for participation)</b>	-
<b>TOTAL FUNDING</b>	<b>2,482</b>

**Table 1:** Eligible expenditure for 2020-21 - summary

### 3. Influencing and leadership

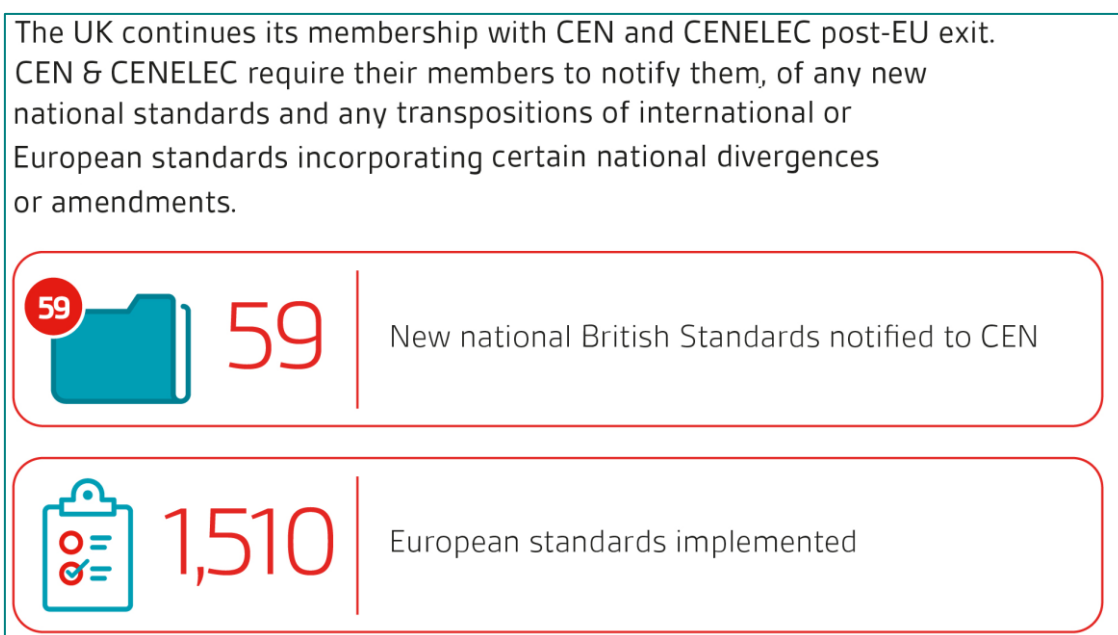
#### 3.1. Subscriptions: Contribution to BSI membership of international standards bodies

Influencing international standards is paramount to ensure the UK's future global competitiveness. BEIS support enhances BSI's capacity to influence international standards bodies (ISO, IEC), as the UK's representatives, by contributing to BSI's membership of those organizations. BSI continues to be a full and active member of the European standards organizations, CEN and CENELEC, although BEIS funding is no longer applied to support the cost of the UK subscription to these bodies.

Membership allows BSI access to influence standards policy development by:

- participating and voting in governance policy meetings
- influencing the development and maintenance of European Standards
- holding seats on European and international technical committees (such as Chair and Convenor)
- adopting internationally relevant and recognized standards at the national level
- nominating UK experts and stakeholder representatives to participate in committees and working groups.

In addition, BSI's Group 1 membership of these organizations through 2020-21 has enabled the UK to lead the development of international and European standards of key concern to the UK and to drive and shape the current and future strategies and priorities of these organizations in line with UK interests. As in previous years, BSI benefited from access to permanent seats on top-level and influential governance boards in both CEN and CENELEC.



**Figure 3:** BSI notifies CEN of any new British Standards it has developed; and adopts new and amended European standards.

BSI provides leadership of international and European standards committees in key areas for the UK in order to “grow back better” such as environmental management, quality management, risk management, governance of organizations, occupational health and safety, vulnerable consumers, and Building Information Modelling (BIM). In addition to international leadership in these priority areas, BSI also led the development of the key standards at the national level which were adopted at the international level and are now used in countries all around the world, reducing barriers to trade. Recent priority areas for BSI included ageing societies and sustainable finance – BSI holds the leadership of the ISO technical committees for these important areas (ISO/TC 314 - ‘Ageing Societies’; and ISO/TC 322 - ‘Sustainable Finance’ (ISO/TC 322)).

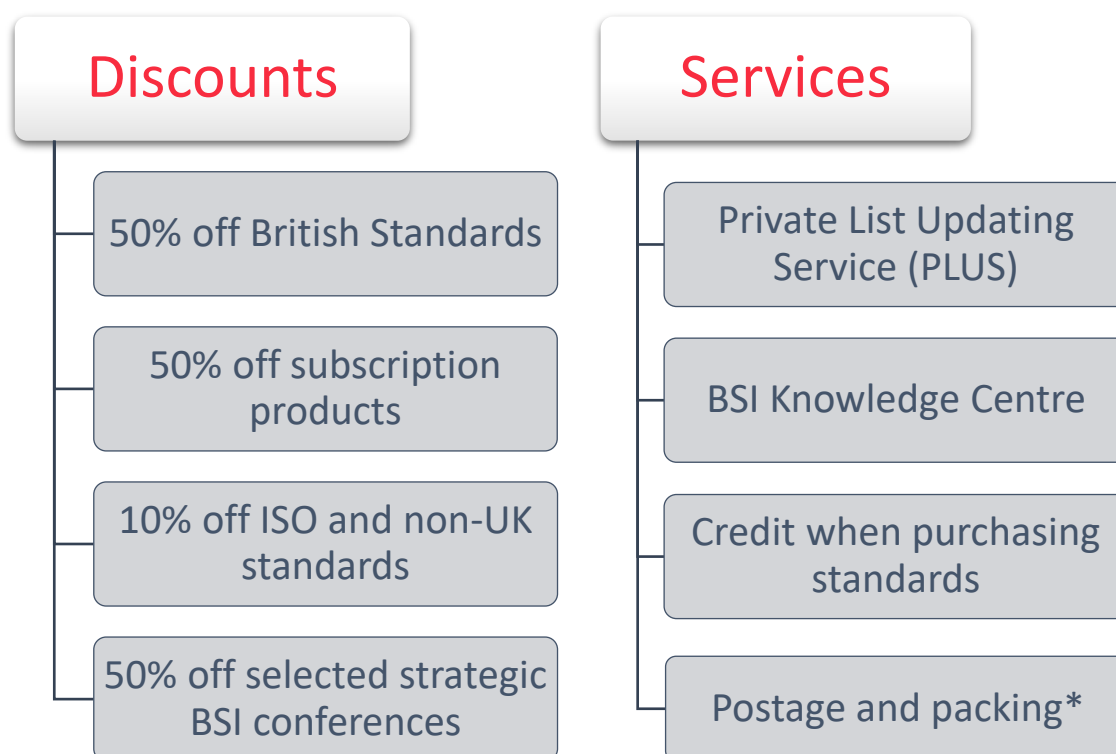
BSI’s Director-General, Standards, Dr Scott Steedman, continued in his role as the Vice President (Policy) of ISO during 2020-21. In this role, Dr Steedman chairs the ISO Strategy and Policy Committee, the ISO Oversight Committee, and the ISO IT Strategy Advisory Group. Under the leadership and direction of Dr Steedman, ISO developed and published the new ISO Strategy 2030 in 2020.



### 3.2. Subscriptions: Access to comprehensive BSI standards portfolio for Her Majesty's Government

A central BSI membership agreement permits HMG departments and executive agencies cost-effective access to standards and related advisory and information services.

During the funding year, all HMG departments and executive agencies were given access to BSI member discounts<sup>2</sup> and services<sup>3 4</sup>, including:



**Figure 4:** Access to specific discounts and services to HMG organizations as per BSI's agreement with BEIS (\* Until Summer 2021).

BEIS contributed £365k to enable Government departments and their agencies to purchase standards products at a discounted rate. Seventy-four organizations benefited from the membership agreement. In addition, BEIS staff have access to the British Standards Online (BSOL) platform as the lead HMG department working with BSI. Standards provided through this access are free of charge. In this period, BEIS staff downloaded 971 unique standards with a value of £238k at no cost; this was almost four hundred more standards than accessed by BEIS staff in 2019-20.

<sup>2</sup> Includes international and European standards adopted as British Standards, and British Standards Online (BSOL) products.

<sup>3</sup> PLUS validates and tracks a member's standards list and automatically updates the list with new standards versions, only available to members.

<sup>4</sup> Knowledge Centre includes advanced subject searches and fast identification of international equivalents from more than 200 standards organizations.



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Government departments and executive agencies purchased standards at discounted rates through BSI membership

BSI continued to work with BEIS to promote standardization within government. As part of its membership, BSI's account managers worked closely with several government departments to manage their key accounts. As a result, BSI has developed productive relationships with HMG contacts, which ensured individual department and agency requirements were met.

### 3.3. BSOL access for UK Product Safety Enforcement Authorities



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unique UK Product Safety Enforcement Authorities accessed British Standards Online platform



BEIS contributed £200,000 to enable subscription access to UK product safety enforcement authorities (UK PSEA) so that they could access content available on British Standards Online (BSOL). UK PSEAs used BSOL 4,032 times using 161 unique email domains to download documents, of which over 1,270 unique standards documents were accessed. This use represents an equivalent individual purchase value of £434,208. The non-member price for accessing an equivalent non-subscription-based suite of standards, per unique user and standard, is around £600k<sup>5</sup>.

**Figure 5:** Visual display of the combination of common words that appear in the titles of the standards accessed by UK PSEA.



4,032

amount of times UK Product Safety Enforcement Authorities accessed standards on British Standards Online platform

<sup>5</sup> Calculated as a sum of the non-member price for individual standards, including their variety of revisions, per unique user, which is determined by email address.

### 3.4. Enabling free access to PAS 7100 (Product Recalls) for SMEs

PAS 7100, an important Publicly Available Specification (PAS<sup>6</sup>) on Product Recalls was published in March 2018. The PAS standard is a code of practice for consumer product safety-related recalls and other corrective actions, providing practical guidance on good practice in consumer non-food product safety for businesses and for market surveillance authorities. Downloads of copies of PAS 7100 were made available free of charge from the BSI Shop for a period of two years, which was made possible with BEIS support and commenced in November 2018, for internal business use by SMEs<sup>7</sup>. Although free access was supported through funding until October 2020, PAS 7100 remains free to download as of publication of this report.

### 3.5. BSI's contribution to efforts to reduce the impact of Covid-19



**100** standards were made freely available by BSI to adapt to and safeguard against Covid-19

BSI responded rapidly to the Covid-19 pandemic with initiatives to support government, businesses, and the public:

- **Free standards and webinars** – BSI made over a hundred standards freely available to help with the response to Covid-19. These covered ventilators, personal protective equipment (PPE), hygiene products (including hand sanitizer) and business continuity / risk management. These standards were made available to help new manufacturers produce medical and PPE equipment and support organizations cope with economic uncertainty. Over 92,000 standards had been downloaded by July 2020 by around 9,000 organizations. Free webinars on business continuity and crisis management were held in partnership with the Emergency Planning College (Cabinet Office Civil Contingencies Secretariat), with over 3,000 participants.
- **PPE Guidance and support** – BSI produced a document to support new manufacturers of PPE. The guidance, which complements government guidance, describes testing and certification requirements to ensure PPE is safe and effective when being used in health and social care environments. BSI also produced guidance for FCO trade officers to assist in the procurement of PPE. BSI Group's product testing and certification supported rapid deployment of PPE by developing new procedures that provide fast-track routes to establishing the performance of products. BSI supported BEIS with urgent requests and offered extended operating hours to meet increased and urgent demand for PPE testing. Support was also provided to the Scottish Government, local authorities, manufacturers, and universities.

<sup>6</sup> A PAS is a fast-track and consultative standardization document developed and formatted based on the British Standards model with a reduced timescale for development. It is developed by a steering group of stakeholders selected from relevant fields and led by BSI.

<sup>7</sup> BSI Group (2018) Supporting better product recalls [Online]. Available at: <https://www.bsigroup.com/en-GB/pas7100-supporting-better-product-recalls/>. {Accessed on 21 May 2021}

- **International cooperation** – BSI worked with partners across Europe to share good practice and to coordinate activities in support of the Covid-19 response. BSI also worked with the NSB for China, the Standardisation Administration of China (SAC), which translated a range of Chinese PPE standards into English. Through the Commonwealth Standards Network (CSN), BSI shared best practice across the Commonwealth. BSI worked with DFID to evaluate opportunities to integrate Covid-19 related activity in support of ODA<sup>8</sup> eligible countries across the Commonwealth.
- **Community face coverings** - BSI responded to an urgent request from the Cabinet Office to develop a new guidance document for face coverings. The guidance was required to support the supply of face coverings for use during the winter season. BSI developed and published this guidance in only seven weeks, using its new BSI FLEX approach to standards development.

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<sup>8</sup> Official Development Assistance is the international criteria for funds provided to developing countries or multi-lateral institutions to reduce poverty and promote development. Source: [Official Development Assistance - GOV.UK](#)

### **3.6. Activities that support influencing and leadership at the UK and international level**

#### **International standards bodies**

BSI's leadership and influence in ISO and IEC are described in section 3.1.

At the regional level BSI retained full membership of the three European standards organizations, [CEN](#), [CENELEC](#) and [ETSI](#), the latter of which specializes in information communications technology (ICT) and telecoms standards. These are the only three bodies authorized to use the 'EN' designation.

Dr Scott Steedman and David Bell are Board members of CEN and of CENELEC, respectively. BSI was represented on the CEN and CENELEC Technical Boards and all policy level bodies responsible for key priority areas. Such representation and influence in the European standardization system is key for UK industry and other stakeholders. BSI has continued to play a leading role in all CEN and CENELEC areas, including the development of the CEN/CENELEC Strategy 2030 and strategic outreach to other countries. In addition, BSI provided leadership by managing key CEN and CENELEC technical committees.

BSI is an ETSI National Standards Organization (NSO), maintaining an active role in the UK delegation to ETSI, running public consultations and voting on ETSI's European standards.

BSI also assisted the [Department for Digital, Culture, Media and Sport \(DCMS\)](#) in managing the UK's involvement in the International Telecommunication Union (ITU-T).

In March 2021, BSI provided its annual report to CEN, CENELEC and ETSI, required of all CEN and CENELEC members and ETSI NSOs, covering transparency in national standards, use of ICT, and involvement of SMEs, environmental stakeholders, consumers, and labour representatives in national standards development committees.

#### **UK engagement**

BSI engaged widely across Government to communicate the role of standardization in support of Government policy objectives. It has highlighted the role of standards in promoting trade, improving productivity, accelerating innovation, protecting consumers the environment, and providing an alternative to regulation. BSI also engaged with the Scottish and Welsh Governments.

BSI responded to numerous consultations and inquiries, offering advice to Government, regulators, and Parliament on how standards can be used to support policy and regulatory objectives.

**EU-Exit** – BSI continued to work with HMG and other stakeholders to maximize opportunities arising from the UK's exit from the EU in January 2020. This included planning and delivery of work to support the UK's new regime of designated standards (see below), the development of national trade policy and negotiation of trade deals. BSI provided support to HMG as it took full control of regulatory policy at the end of the transition period in January 2021.

An important part of BSI's approach has been to maintain the UK's leadership position in international standards-making activity. This includes full membership of the European Standards Organizations post-transition. These organizations form an important part of the broader framework of international cooperation within the international standards system led by ISO and IEC<sup>9</sup>.

BSI worked on the governance of CEN and CENELEC to secure a new membership proposition for the UK that will reflect the UK's new status in the European regional context. A transitional phase will last until the end of 2021; the new membership model for CEN and CENELEC was agreed in June 2021, enabling a smooth transition of BSI to a new category of full membership.

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<sup>9</sup> To note: CEN and CENELEC are private members' associations across 34 countries, rather than EU agencies.

**Designated standards** – with the introduction of a new UK regulatory marking, UKCA, from 1 January 2021 in Great Britain, HMG is now designating standards for regulatory conformity. The use of a 'designated standard' provides the presumption that a product conforms to relevant regulations.

Designation is a new process that shows how standards give a presumption of conformity to certain UK regulations in Great Britain

BSI is supporting HMG in the delivery of the designated standards scheme and has introduced new processes to identify standards as they reach certain development stages in the CEN, CENELEC and ETSI. As part of Government's Designated Standards Working Group led by OPSS, BSI contributed its expertise and has engaged with numerous stakeholders within government to deliver training to teams responsible for regulations, for example, the [Medicines and Healthcare products Regulatory Agency](#), [Health and Safety Executive](#), and BEIS. BSI has also connected with relevant government teams to build a wider network to support information sharing and guidance on the process of designation.

BSI has invested in upgrades to its online BSOL and BSI Shop services to show which standards are designated. It has updated the national foreword<sup>10</sup> text used when we adopt relevant European standards, to increase the understanding of consumers, business, and other stakeholders about how the standard relates to regulations in GB and in Northern Ireland. In addition, BSI is investigating ways to demonstrate which standards in BSOL and BSI Shop are cited in the Official Journal of the European Union, the European Journal that lists all cited harmonized EN standards to show the links between the same standards and European regulations. This is important as harmonized EU standards remain valid for the Northern Ireland market.

Looking forward, BSI is analyzing the impacts on regulatory divergence between the UK and the EU on our standards development process and committee contributors. A new EU medical devices regulation (MDR) came into operation in May 2021 with significant impact – UK regulations in Great Britain are no longer the same as those in the EU or Northern Ireland. To address this, BSI worked with government to agree the best approach to deliver national annexes which reference related regulations for GB that show the new relationship between the designated standards and UK regulation.

This is the first significant change in the relationship between UK Government, national regulations and the standards portfolios in decades, and BSI has strategically aligned itself to partner effectively with Government and collaborate to respond to the new standards environment. For BSI this has led to new engagement with our committee members, clarifying the implications of the changes on the work they do and raising awareness of the links between standards and regulations to support closer working with Government.

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<sup>10</sup> National foreword: the text that sits at the front of a standard and part of the 'front matter' that is added to each adoption.



**Regulation for the Fourth Industrial Revolution** – The programme of workshops, started during the previous year and conducted jointly with quality infrastructure partners [National Physical Laboratory](#) and [UKAS](#)<sup>11</sup>, alongside the [Better Regulation Executive](#) and [OPSS](#), continued, moving online owing to the pandemic. Following the initial workshop on agile standards, further workshops covered digitalization, international influence, partnerships and research, and links to policy and regulation. BSI's partners in the national quality infrastructure (NPL and UKAS) were also invited to speak to members of the new Regulatory Horizons Council, an advisory group managed by the Better Regulation Executive, about the project and more broadly about the potential of standards. The final set of engagement activities centred on stakeholder workshops to test understanding of the project findings. The project's report and action plan was published in July 2021 in conjunction with the Government's Innovation Strategy.

**Task Force for Innovation, Growth and Regulatory Reform (TIGRR)** – The Prime Minister announced the formation of a new task force in February 2021, which consisted of three MPs, the Rt Hon Sir Iain Duncan Smith MP, the Rt Hon Theresa Villiers MP, and George Freeman MP, supported by officials. The Task Force was tasked with identifying and developing proposals to drive innovation, growth and competitiveness through regulatory reform, post EU-Exit. The outputs were fed back directly to the Prime Minister. BSI engaged closely with the members of the Task Force and officials during the preparation of the TIGRR report and recommendations, an activity which continued into 2021-22.

**Integrated Review** – BSI was recognized in HMG's [Integrated Review of Security, Defence, Development and Foreign Policy](#), published in March 2021. The report set out the UK's overarching national security and foreign policy objectives to 2025. It made significant reference to the role of standards bodies as instruments of UK soft power and recognizes the importance of using regulatory diplomacy to influence the rules, norms and standards that govern technology and the digital economy. BSI is named as a key partner for Government to ensure transparency and accountability are embedded from the outset in the design and deployment of new technologies. This follows substantial engagement to position BSI as a partner for Government in developing new public policy approaches.

**Crown Commercial Services** – BSI became a strategic advisory partner to the [Crown Commercial Services](#) on its new "Smart Hub" for Local Authorities and NHS Trusts. Smart Infrastructure is a global opportunity worth £2trn-£4.8trn<sup>12</sup>. The Hub sets out the key principles that Local Authorities and Government bodies need to follow to deliver Smart digital and infrastructure projects and is part of government's drive towards cyber principles for secure procurement. The partnership will build on BSI's existing engagement with central Government and enhance awareness among Local Authorities of the role of standards in support of more resilient and secure procurement.

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<sup>11</sup> United Kingdom Accreditation Service, the National Accreditation Body for the United Kingdom.

<sup>12</sup> Keith Bowers, Volker Buscher, Ross Dentten, Matt Edwards, Jerry England, Mark Enzer, J Schooling, A Parlikad (2017) Smart Infrastructure: Getting more from strategic assets. Technical paper. [Online]. Available at: [the-smart-infrastructure-paper.pdf \(cam.ac.uk\)](#). {Accessed on 9 July 2021}



**UK Soft Power Group** – BSI is an active member of the UK Soft Power Group, an independent organization run by the [British Council](#) that brings together a range of relevant actors, to coordinate the promotion of UK soft power assets and influence government about policies to better promote and exploit those assets.

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*“The UK, like other nations, is directly affected by new conditions [international access to state information, the digital empowerment of individuals and groups, the growing role of global protest networks and NGOs, the complexity of modern trade supply chains and multinational corporate operations, accelerated urbanisation, the increasing asymmetry of modern warfare, and transnational challenges]. They create a demand for new approaches in the exercise and deployment of our influence. These new methods involve generating international power through influencing other countries to want the same things as the UK, by building positive international relationships and coalitions which defend our interests and security, uphold our national reputation and promote our trade and prosperity. This has been described as the exercise of 'soft power', as distinct from the use of force and coercion for a nation to assert itself, labelled as 'hard power'.”*

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The Select Committee on Soft Power and the UK’s Influence, UK Parliament<sup>13</sup>

**Security and Defence** – BSI had frequent engagement with the [National Cyber Security Centre](#), [Government Communication Headquarters](#) and [Centre for Protection of National Infrastructure](#) on the Government’s cyber and security strategy and the new Cyber Principles. BSI also engaged with the MoD’s [Defence Standardization Unit](#) on the use of civilian standards.

**Digital and Telecoms** – BSI collaborated closely with the Digital Standards Team within the [Department for Digital, Culture, Media and Sports](#) (DCMS) to explore opportunities across digital, data and telecoms standards. BSI played an active role in a cross-government digital standards coordination team led by DCMS, that is shaping the strategic direction for international standards for emerging technology, including AI and Quantum.

In addition to this work, Dr Scott Steedman led the shaping of the standards working group strategy for the Government’s Telecoms Diversification Task Force, chaired by Lord Livingston. The [Task Force published a report](#) on how Government can create more resilience in the UK telecommunication network and explored the role of BSI in delivering diversification of the telecoms supply chain.

BSI continued to support the UK delegation to the International Telecommunication Union (ITU-T) for the [World Telecommunication Standardization Assembly](#) scheduled to take place in March 2022. BSI was active in the UK delegation to ETSI and attended the NSO meetings and the [ETSI General Assembly](#).

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<sup>13</sup> Select Committee on Soft Power and the UK’s Influence (2014) Persuasion and Power in the Modern World [Online]. Available at: [House of Lords - Persuasion and Power in the Modern World - Select Committee on Soft Power and the UK’s Influence \(parliament.uk\)](#) {Last accessed on 8 July 2021}

**G7** – BSI supported the Government on its ambitions for the G7 presidency. BSI participated in a DCMS roundtable with other G7 members on Digital Technical Standards that focused on strengthening the multi-stakeholder standards system internationally.

The event was part of a series of stakeholder engagement activities organized by Government to help shape the [G7 Ministerial Declarations on Digital and Technology](#). The declarations recognized the significant and positive role that digital technical standards have in supporting the global economy and society and explored the real-world impact of standards on citizens and societies.

BSI extensively engaged with the [Foreign, Commonwealth and Development Office](#) (FCDO) to support the inclusion of standards within G7 discussions, resulting in a range of references to standards in the G7 summit communique relating to the role that standards can play to support trade and innovation. BSI is following up the specific opportunities including enhanced coordination between G7 NSBs.

**COP 26** – BSI submitted proposals to the [Cabinet Office](#) for participation in COP26 covering each of the UK Presidency's six themes:

1. Adaptation & Resilience
2. Nature
3. Energy Transition
4. Clean Transport
5. Finance
6. Cities & the Built Environment.

BSI worked with ISO to develop a proposal which will be submitted to [UNFCCC](#) (United Nations Framework Convention on Climate Change) in summer 2021. BSI also applied for observer status of UNFCCC.

**Strategic Trade Advisory Group (STAG)** – [STAG](#) is a high-level forum for discussion between HMG organised by the [Department for International Trade](#) (DIT) and a cross-section of stakeholders on issues linked to UK trade policy, including the negotiation of trade agreements. STAG is chaired by the Minister for International Trade, Ranil Jayawardena.

Following a call for expressions of interest over the summer of 2020, BSI's Director-General, Dr Scott Steedman was re-appointed to the 'consumer protection and standards' seat on STAG in early September 2020. BSI's seat on STAG is vital to support the interests of BSI's stakeholders in the negotiation of UK trade agreements and in the development of broader UK trade policy, where these issues may be discussed with government at ministerial level. During 2020-21 there were three formal meetings of STAG with a number of further extraordinary sessions organized in relation to the negotiation of trade agreements and the UK's multilateral agenda in the World Trade Organisation.

To further support the DIT, Dr Steedman also had meetings with Minister Jayawardena and the Minister of State for Trade Policy, Greg Hands, to explore the role of international standards in furthering the UK Government's objectives in trade policy and on market access issues facing UK exporters.

Following a request from BSI and its stakeholders, DIT created a thematic working group on technical barriers to trade (TBT). This provides a dedicated group to support government on the role of quality infrastructure in trade agreements. The inaugural meeting of the working group was held in February 2021.

**PAS 440:2020 Responsible Innovation** – The PAS standard for Responsible Innovation, PAS 440 sponsored by Innovate UK, was launched at BSI's Standards Conference in April 2020. This new PAS provides guidance for companies that want to innovate responsibly and demonstrate responsible behaviour. Where new technologies are likely to be disruptive or create public concern, this PAS will help companies think through, in a structured way, the issues raised by their proposed innovation. This will help companies determine that their processes are developed with broader implications in mind and provide them with a framework that demonstrates to wider society that their decisions are responsible. Government departments, including the [Centre for Data Ethics and Innovation](#) (CDEI) and DCMS, were engaged as part of the stakeholder interviews that informed the development of this standard.

**British Standards Society (BSS)** – [BSS](#) is the society of standards users. BSI provides support to BSS by funding their membership subscription to [IFAN](#) (International Federation of Standards User Groups). In addition, BSI hosted the BSS AGM in its Chiswick offices in July, and in October BSI hosted the IFAN Board meeting, Members Assembly, IFAN AsiaPac Working Group, IFAN WG16 Education and IFAN European Working Group in London and supported the attendance of a BSS delegate to the meetings.

**Devolved Government Engagement** – BSI furthered its engagement with the devolved administrations on their strategic priorities and areas where standardization can support government. This included engagement with the Scottish Government on its [Vision for Trade Strategy](#), consumer protection policy, better regulation, COP26, food and drink, and digital strategies.

BSI engaged with the Welsh Government Trade and Goods team and agreed to present at the Welsh Government's Trade Professionals week in April 2021 on the role of standards in support of delivery of the government's policy objectives on sustainability and trade.

**Industry Engagement** – BSI continued to engage with industry through our relationships with industry organizations, particularly trade associations that nominate experts to BSI committees. BSI also developed its relationships with cross-sector business organizations such as the [Confederation of British Industry \(CBI\)](#). By engaging with UK industry, BSI ensures that the views of UK industry are well-represented and considered in BSI's policies.

**Industry Advisory Forum** – BSI continued to facilitate the involvement of UK industry in the CEN/CENELEC 'Industry Advisory Forum', a group of industry leaders from across Europe. The group was set up to facilitate an open exchange of views on standardization issues and to inform CEN/CENELEC on industry standardization priorities. The UK's representative maintained leadership of a working group to advise on the digitalization of industry. BSI's mirror group of UK industry experts continued to meet to ensure a broad representation of UK industry. BSI remains the only CEN/CENELEC member to involve its industry stakeholders in this way.

**SME engagement** – BSI continued to follow the requirements of EU Regulation 1025/2012 up to 31 December 2020. The [2020 BSI's report on SMEs](#) can be accessed at the BSI website.

**Innovate UK EDGE standards toolkit** – BSOL (BSI's standards subscription service) was made available to 250 [Innovate UK EDGE business growth advisors](#), who support 6,000 SMEs. BSI provided further support in the form of training, standards "surgeries", dedicated webpages, and access to our information specialists. The aim is to help innovative businesses to grow.

**Standards Conferences** - BSI's April and November conferences were held online and were our biggest and most international Standards Conferences to date.

BSI worked with [AAMI](#), the US-based standards developing organization for medical devices, to host a major [conference](#) to help the global medical device and healthcare industries to understand issues around placing safe products on the market, the role of standards to support regulation and requirements for product marking.

## International Engagement

BSI completed the delivery of phase two of the UK Aid funded Commonwealth Standards Network (CSN), a programme to promote the use and development of international standards to facilitate intra-Commonwealth trade and investment, leading to economic growth and positive developmental outcomes in those nations. A full summary of phases one and two of the CSN, including a case study of CSN in action, is included at [Section 6 \(Impact Case Studies\)](#). The network consists of 52 (of 54) Commonwealth members accounting for 99% of intra-Commonwealth goods exported. The programme delivered a range of interventions including short term training programmes for national standards bodies, stakeholder workshops and the delivery of collateral including a framework of international standards, a CSN toolkit and a fully operational web portal ([www.commonwealthstandards.net](http://www.commonwealthstandards.net)).

The programme further delivered technical assistance programmes in Africa (Rwanda, Uganda, Zambia), Oceania (Papua New Guinea and Vanuatu), and the Caribbean (Belize, Dominica, Saint Lucia, Saint Vincent & the Grenadines). As a result of Covid-19, BSI had to steer delivery towards virtual training and assistance, facilitated a range of support for ODA eligible countries with their Covid-19 response and delivered a range of e-learning material. Whilst the UK Aid

funding has finished, BSI will maintain the CSN network to further peer-to-peer learning across the Commonwealth and the dissemination of UK good practice. Phase 1 of the programme (May 2018-March 2020) was awarded an A+ performance rating from DFID and was extended by 12 months for Phase 2 (managed by FCDO) to run until the end of March 2021, with an increased emphasis on National Quality Infrastructure.

BSI continued to promote the role of standards in support of UK interests and maintained high levels of engagement. Bilateral engagement took place with a range of strategically important countries including Canada, Australia, Japan and China; BSI provided input into a Chinese Government consultation on measures for the [Administration of National Standards in China](#). In support of UK-Vietnam trade, BSI provided a further fifty-two standards, covering sports and outdoor activities, to Vietnam's NSB ([STAMEQ](#)) for adoption in Vietnam, This will help UK businesses to access the Vietnamese market. BSI signed a Memorandum of Understanding (MoU) with the Korean Telecommunications Technology Agency (TTA), to help promote the increased use of international standards to support the development of the IT industry.

BSI also contributed to FCDO-run workshops on the role of standards and quality infrastructure in supporting UK interests and international trade. Staff from BSI and ISO delivered presentations to desk staff in embassies and high commissions around the world.

## Education

BSI continues to promote standardization to university postgraduates and early-career professionals. This included working with education partners to develop and deliver a range of learning activities and resources.

BSI's engagement included supporting university teaching of standards through its growing 'guest talks' programme, the extension of the Student Research Programme (offering practical support to master's level students and their research projects) and Public Committee Meetings. In addition, BSI expanded its support for the teaching of standards through the production of new materials and resources, such as best video content, infographics and slide decks.

BSI also launched the [BSI Education Podcast](#), with the aim of raising awareness and encouraging the usage of standards, and promote participation in standardization. The episodes covered the concepts and history of standards, and the people and organizations involved, with spotlights on individual standards, the relationship between standards and key economic issues, the role of standards in specific sectors, and the power of standards to drive change in organizations and countries.

## ISO Week 2021, the Standards Experience 2021 and the IEC General Meeting 2024

BSI is scheduled to host three major events in the coming years:

1. [ISO Week London 2021](#)
2. Standards Experience 2021
3. 2024 General Meeting of the International Electrotechnical Commission (IEC)

Both ISO Week in 2021 and the IEC General Meeting in 2024 will bring together senior international figures and thought leaders to discuss the key issues for standardization and to take decisions on the future direction of the organizations. These conversations will focus on future growth, resilience, innovation, and development throughout the world, with a specific emphasis on contributing to the UN's Sustainable Development Goals (SDGs). As host, BSI will be at the heart of the events, demonstrating the UK's leading role in international standardization.



ISO Week will take place in London in September 2021 at the QEII Conference Centre in Westminster, with additional events at the Institution of Civil Engineers (ICE). This event will be a virtual event, with ISO officers travelling to the UK (subject to travel restrictions) and those who are unable to travel, joining the event via a bespoke platform. This model will set the blueprint for future annual meetings of ISO.

BSI has opened the Standards Experience at the beginning of July 2021, in the Library at the ICE, which is scheduled to run for 9-12 months and will focus on the power of knowledge and consensus and the role they play in accelerating positive change and how they support the UN SDGs.

The IEC General Meeting event will take place in late 2024. Details are to be arranged but it is likely to be held outside of London. Delegations from all member countries of IEC are expected to participate.

## Committee member training

BSI continued to deliver free training courses for those directly involved in the standards-making process. The courses cover a broad range of technical and interpersonal subjects that aid new and established committee members in undertaking their roles. Due to increased demand, the induction course now runs monthly. For UK committee members acting as Convenors of international standards working groups, BSI offers a one-to-one advisory service for those needing guidance and support, and we have co-hosted events with other standards organizations. In March, with the onset of Covid-19, BSI moved all its training course to an online offering and developed introductory webinars to support new members.

	<b>Apr-Jun 2020</b>	<b>Jul-Sep 2020</b>	<b>Oct-Dec 2020</b>	<b>Jan-Mar 2021</b>	<b>Year total 2020-21</b>
<b>Courses ran</b>	6	16	9	18	<b>49</b>
<b>Expressions of interest received<sup>14</sup></b>	372	54	246	711	<b>1,383</b>
<b>Maximum capacity<sup>15</sup></b>	36	192	108	216	<b>552</b>
<b>No. delegates</b>	45	140	71	208	<b>464</b>
<b>Fill rate</b>	125%	73%	66%	96%	<b>84%</b>
<b>Satisfaction rate<sup>16</sup></b>	88%	84%	79%	87%	<b>85%</b>

**Table 2:** Statistics for UK Committee Member training during 2020-21.

<sup>14</sup> Number of applications received to attend a course, although not all applications progressed to a confirmed booking.

<sup>15</sup> 12 delegate places were available at each course. During April – June 2020, the new online format was trialed with only half the usual number of places.

<sup>16</sup> BSI requests that delegates provide a score out of 5. The average score for all delegates is converted into a percentage to create the satisfaction rate.



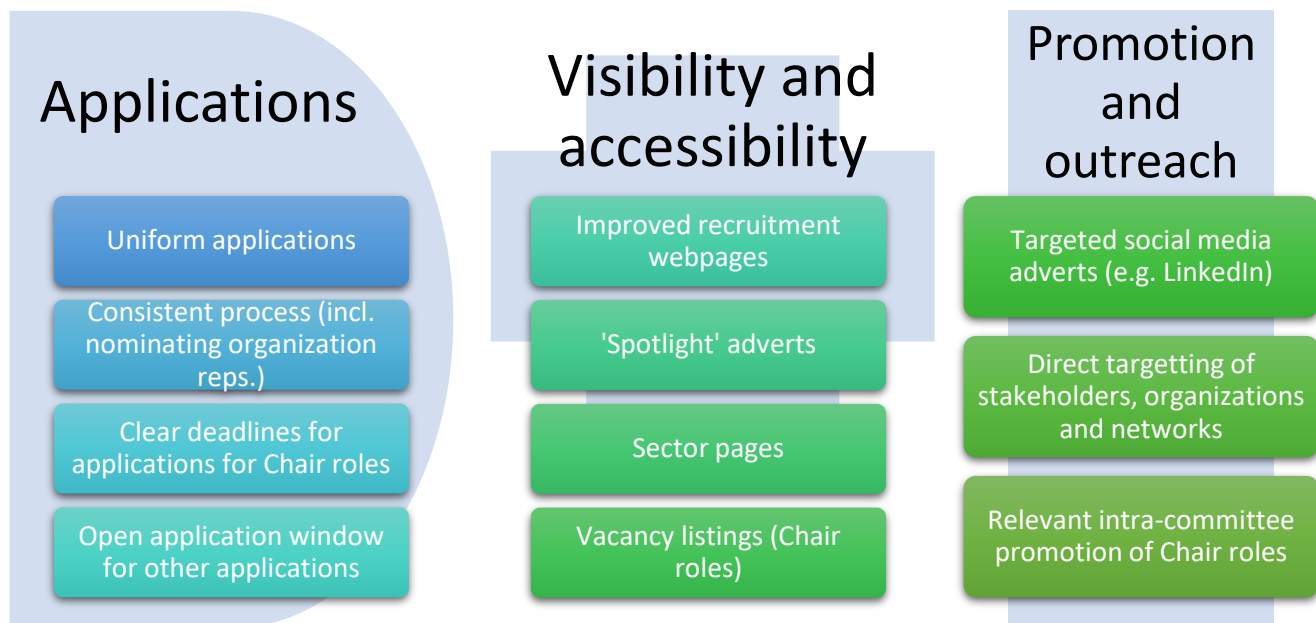
## 4. In focus: Diversity and inclusion

**New Approach to Recruitment** - A new approach to Technical Committee membership recruitment, focused on inclusion and diversity in the recruitment, accessibility and promotion of committee chairs and members’ roles, was launched in February 2020. Throughout the year, a project team developed a new approach to recruitment of committee members and chairs. Based on feedback and to achieve BSI’s diversity and inclusion objectives, BSI outlined the following focus areas:

- Recruitment to increase the number of new members and new chairs, improving the overall diversity and the diversity of applicants, and communication of open roles and other relevant external communications
- Provision of a consistent approach to recruitment which encourages recruitment across all walks of life and for leadership roles
- Improvements and standardization of the recruitment data collected within the UK’s Data Protection Act (2018)
- Provision of greater clarity and transparency about the application processes

The Project Team approached the challenge with practicality in focus, with current resources. The visible and external core elements of recruitment which have changed include:

- Applications
- Visibility/accessibility of opportunities
- Promotion and outreach of opportunities



**Figure 6:** Most prominent changes to the core elements of recruitment within these themes.

The Team also developed numerous tools and resources for BSI colleagues as well as training focused on the new process and interviewing. Despite the new approach, the core criteria, selection process and core responsibilities for the chair and member roles remain the same.



**BS0 revision to reflect BSI's commitment to diversity and inclusion** – Work has progressed to revise BS0, a standard for standards, a document by which BSI sets out how British Standards and related documents are developed and maintained, to ensure diverse and inclusive committees. Specifically:

- BSI's commitment to ensure diversity and inclusion in its committees.
- Applications are welcome from any interested party, from a wide range of individuals and stakeholders.
- Organizations are encouraged to consider diversity and inclusion when selecting individuals to put forward as their nominated representative on a committee.
- 'Trading standards' was introduced as a new nominating organization category.

**BSI Flex 236: Enabling the development of inclusive standards: understanding the role of data and data analysis** – A new project for a BSI Flex, funded by BEIS, is now underway with a technical author in place. BSI Flex 236 will explore the role of data, in very general terms, in standards and how we can enable standards developers to identify and understand limitations, gaps, biases in the data and information they are using to create standards and what they should do about it. Product Information Management has already taken place and there is tremendous enthusiasm for the potential impact of this standard – “potentially earth-shattering” – and it has already started to attract positive interest from other government departments. The role of data in standards is at the forefront of European and international group discussions for gender responsive standards. This Flex is an opportunity for BSI and the UK to demonstrate thought-leadership on gender equality and wider inclusion in standards. The Flex will be a guide and will cover:

- Classification of the ways data is selected, assessed, and used in standards development, including a segmentation of different data types (text, images, audio) and associated processing (filtering, statistics, deterministic algorithms, AI).
- Considerations on the way data and models can introduce bias or exclusion into the standards development process. This includes both data used to create the standard and data or data collection specified as part of the standards.
- Classification of the nature of impacts of data bias or exclusion and the communities affected. This can include impacts related to protected characteristics (race, gender, etc.) as well as non-protected characteristics (height, weight, dietary needs etc.).
- Consideration of risk assessments and screening methods to check and appraise the inclusiveness of data in standards development.

## 5. Support for standards development

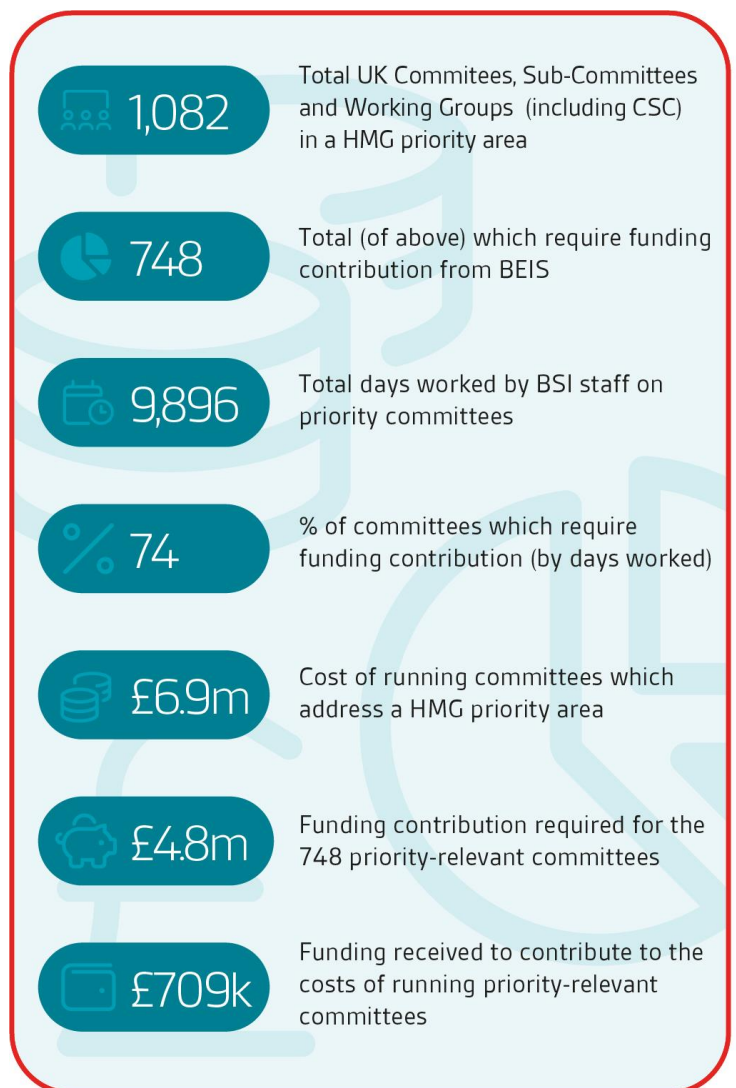
This funding stream provides support for our standards development programme, including programme management (committee secretary) support for eligible BSI committees, access to international standardization provided for committees by our Committee Service Centre (CSC), BSI staff travel in support of standards development through the Staff Travel Fund (STF) and priority area standards programmes and specific projects. Most of the total funding is made available for activities in areas that promote key HMG policies, such as competitiveness, innovation, protection of consumer interests, sustainability, and procurement.

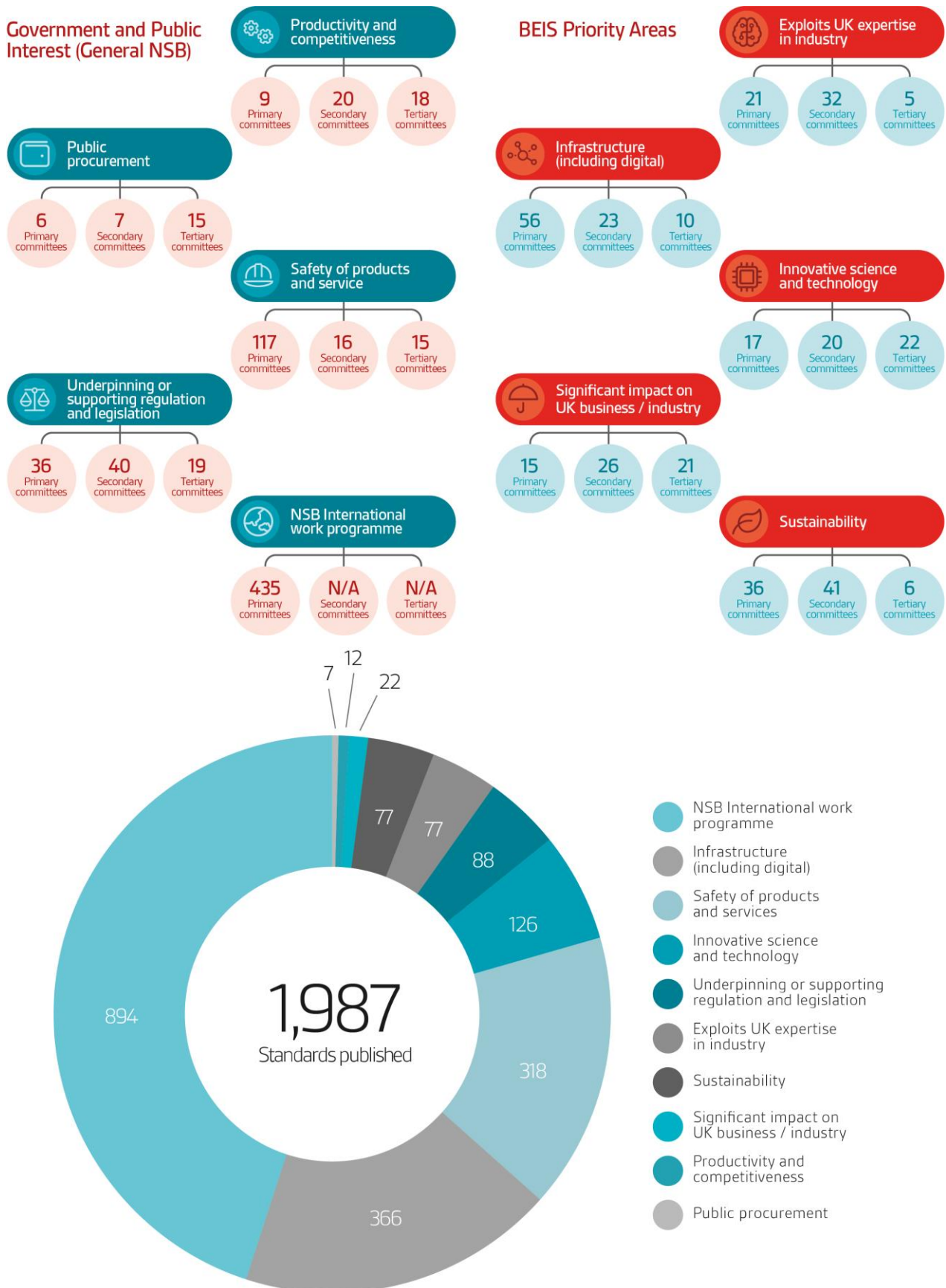
### 5.1. General standards development programme update

As set out under the areas of applicability at Annex 2 of the Grant Funding Agreement 2020-21 ("Funding Activities"), funding is applied to non-commercially viable standards development activity (market failure) which supports HMG priorities in relation to:

- Government or public interest (i.e. regulation, consumer protection and safety).
- NSB international work programme (i.e. 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 which protects UK interests, exploits UK expertise, and has significant impact on UK industry, including international secretariats).

Staff resources are usually assigned to UK committees to manage and run them, along with corresponding European or international committees with BSI as the secretariat. BEIS funding contributed towards programme-management support for 313 UK standards technical committees in 2020-21. A further 435 committees receive a contribution to their running costs through the Committee Service Centre (CSC). BSI acts as the gateway for UK parties to take part in international standardization, through the CSC. Committees within the CSC framework are prioritized as the 'NSB international work programme'.





**Figures 6 & 7:** A total of 758 UK committees require a funding contribution as they are non-commercially viable. 1,987 new and amended standards were published by these committees in 2020-21. This figure demonstrates that these committees and the standards they produce cover a wide range of priority areas.

Committees facilitated the publication of 1,987 new and updated standards. Their programmes are mainly European and international standards, with a small proportion of purely national standards. Of the figure above, 894 standards were published through committees facilitated by the CSC. Separately, 3,030 documents were published via ETSI.

Please refer to **Annex 1** for details of the committees supported.

## **5.2. Staff Travel Fund (STF)**

An allowance for travel is available within the Support for Standards Development budget. This allowance enables BSI staff to accompany UK committee members to meetings and provide guidance and support that enables UK technical experts and delegates to maximize their influence during overseas meetings; these activities ultimately benefit the UK. This funding continues to provide valuable support to UK committee members.

During the year, no travel was booked by BSI staff to support committee members at external meetings due to Covid-19. However, BSI staff were still able to support and guide their committee members at international and European meetings by attending them virtually, with the added benefit that the BSI staff were able to attend more meetings because there was no additional cost and time needed to travel.

BSI undertook a survey in February 2021 about the involvement of BSI staff at virtual meetings and how their participation differs to physical attendance at committee meetings using the STF. Nine out of ten regular or occasional users of the fund have continued to support their UK delegates at international virtual meetings, or which half state that they were able to attend more meetings in this way. The case study below highlights one BSI staff member's account of supporting their UK delegates entirely based at home.

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### **Case study: Sustainable support of the UK Committee member community**

International standardization on Smart and Sustainable Cities and Communities started in ISO and IEC in 2012 and has seen great success in the uptake of standards on the subject ever since, with active interest and participation from 42 countries around the world, including the UK. However, standardization at European level was slow to start, with a CEN committee not set up until 2019-2020, currently only focused on the identification and adoption of existing international standards rather than the development of new EN standards.

Specifically, CEN/TC 465 addresses the development of requirements, frameworks, guidance and supporting tools and techniques to be used in the development of smart and sustainable cities and communities. The proposed standardization plan will be developed to assist cities and community decision making, and support their implementation of sustainability and sustainable development; with a focus on the development of a holistic and integrated approach in response to the needs of European Cities and Communities in both rural and urban areas.

The UK and BSI has been involved from the outset in the establishment of CEN/TC 465, through its national technical committee SDS/2 (Smart and sustainable cities and communities), assigned as the mirror committee to CEN/TC 465, for which it actively participates and supports its UK-nominated vice-chair.

As a newly established group, it is essential that BSI engages and supports the UK delegation of nominated experts in their participation and attendance at CEN/TC 465 meetings, to maintain the UK's position at the forefront of smart and sustainable cities and communities standards development, and support CEN/TC 465 in the co-ordination and adoption of relevant international standards ensuring the UK cities are represented and our expertise shared.

Andreea Vieru, the Committee Manager for SDS/2, has attended in support of the UK delegation all CEN/TC 465 meetings since its first one was held in March 2020. All five meetings thus far have been virtual – the attendance levels and engagement from member countries has been encouraging. Andreea was able to support the UK nominated vice-chair as well as all other UK experts in attendance, and develop new and maintain existing key working relationships, maintaining the UK's strong position in European and international standardization. The UK's feedback on the setting up of this new group and the development of its business plan was essential in ensuring that standardization post EU-Exit at European level does not overlook the needs of the UK.

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### **5.3. Priority Areas standards development programme**

The Priority Areas programme fund provides for standards programmes and individual priority-led projects – a varied programme of standardization activity that supports policy priorities and the regulation agenda, ranging from standards strategy and delivery work to awareness-raising activities.

Public sector funding was made available for the Energy Smart Appliances (ESA) programme and two PAS development projects, Button Batteries and UK Heat Networks, respectively, using funding from other sources within BEIS.

£222,461 was made available for the extension of the ESA programme to complete its second phase. £85,000 and £12,500 were made available to develop the UK Heat Networks and Button Batteries PAS documents.

To support HMG's strategic and policy objectives, and with a budget usually assigned to national and international travel, BEIS invited BSI to nominate projects that would address BEIS current priorities. Eight proposals were selected which focused on post-EU Exit standards designation, consumer protection and standardization for consumers, engaging HMG in standards, PAS 7100 (on product recalls) and reducing bias in standardization.

#### **2020-21 Standards Development Programme projects**

Projects funded through BEIS directorates:

- Energy Smart Appliances programme – Phase 2
- PAS Development: Button Batteries
- UK Heat Networks – Pre-standardization, Phase 1

Selected projects to address BEIS current priorities:

- Analysis of the use of UK public information and data by UK consumer organizations
- Development of Designated Standards process and pipeline
- Inclusive Data and Analysis – dealing with unconscious bias in standards
- PAS7100 revision: Supporting Better Product Recalls
- Produce a 'Government handbook on standards'
- Programme to sustain/grow the Consumer and Public Interest Network membership
- Protocol for identifying consumer relevant standards
- Protecting the "virtual consumer" – online marketplaces



## Projects at a glance

### Energy Smart Appliances programme – Phase 2

**The aim of the ESA programme, led by BSI, is to facilitate the uptake of safe, secure, and interoperable smart appliances to support the effective management of demand on the electricity network and transition towards a smarter, flexible, zero-carbon grid.**

The programme has been instrumental in fast-tracking standards in an emerging area. At its final stage, the programme has focussed on the development of two PASs on ESA classification and a demand side response<sup>17</sup> framework, and a roadmap, which sets out a series of standardization activities required to support the early implementation of the two standards.

Progress in Phase 2:

- In May 2021, the BSI programme delivered the publication of two PAS documents:
  - [PAS 1878 Energy smart appliances – System functionality and architecture](#)
  - [PAS 1879 Energy smart appliances – Demand side response operation](#)
- BSI carried out a series of workshops and stakeholder interviews to develop an ESA roadmap: *PAS 1878 and PAS 1879 development stage - Roadmap for PAS implementation and next steps*. The roadmap is scheduled to be published by late summer 2021 and sets out an agenda to realize the benefits of demand side management enabled by ESA. The roadmap focuses forward progress in three key areas:
  1. PAS internationalization
  2. Developing the PASs beyond their initial scope and integrated into the wider energy system
  3. Developing an appropriate mechanism to demonstrate compliance to PAS 1878

### PAS 7100 revision: Supporting Better Product Recalls

**This project aims to revise PAS 7100:2018<sup>18</sup> and update the practical guidance for businesses in managing product recalls or other corrective action for non-food consumer products.** The revision will reflect changes in the law, customer traits and industry practice to ensure the PAS continues to provide best practice guidance to ensure product safety for consumers.

<sup>17</sup> Demand side response, or DSR, is the long-term reduction of demand through effective energy management. According to [OfGem.gov.uk](https://www.ofgem.gov.uk), consumers are able to register for tariffs and schemes which reward them for changing how and when they use electricity, using innovative technologies such as smart meters.

<sup>18</sup> BSI (2018) Supporting better product recalls. [Online]. Available at: [PAS 7100 - Supporting Better Product Recalls | BSI \(bsigroup.com\)](https://www.bsigroup.com/Products/PAS-7100-Supporting-Better-Product-Recalls/) {Accessed 7 June 2021}



### PAS Development: Button and coin batteries

**The aim of the PAS is to protect the health of consumers, mainly children, by reducing the risk of exposure and subsequent ingesting of button and coin batteries through the development of a single source of information for enforcement and consumer educational purposes.**

With recent developments in product design and technology, button (non-lithium) and coin (lithium) batteries are now available in a wide range of household items. The key hazard associated with these batteries is the chemical burn that occurs because of ingestion or insertion. The most severe injuries and fatalities occur as a combination of:

- ⊗ Larger battery diameters
- ⊗ Hazardous voltage (specifically anything above 1.229 volts)
- ⊗ Ingestion and its potential to lead to the more severe injuries (versus insertion)
- ⊗ Age-related risk groups (where younger children are more at risk).

The significant difference between the hazards associated with the size, voltage and power is the time it takes for a hazardous reaction to occur; reactions are quicker with the larger coin lithium batteries. Thousands of children have been injured and over 60 children have died globally following the ingestion or insertion of button and coin batteries.

PAS 7055:2021, *Button and coin batteries – Safety requirements – Specification*, is aligned with The General Product Safety Regulations 2005 (GPSR) which requires that new and used consumer products placed on the market are safe. It specifies safety requirements for button and coin batteries up to 32 mm in diameter to mitigate the risk of ingestion. It also defines the safety requirements for manufacturers and producers of button and coin batteries, including the consumer products that use them, and the retailers and distributors of these products.

After the final Steering Group review (February 2021), BSI worked with the Technical Author to prepare the document for approval. BSI received approval of the PAS 7055 draft from OPSS in March 2021. PAS 7055:2021 was published<sup>19</sup> on 30 April 2021.

### Government Handbook on Standards

**BEIS and BSI have a shared objective of raising the awareness of standards across government. As part of the engagement activity, and in preparation for engagement events, a brochure will be produced to explain BSI's role as National Standards Body and how standards can support the delivery of Government's policy objectives.**

The main output of this project is a brochure/handbook to promote the benefits of standards in supporting Government policy objectives, to build on the success of the 'Ministers' Handbook'. Areas covered are likely to include business performance and resilience, innovation, consumer protection, net-zero and an alternative to regulation. The brochure will be distributed to civil servants to promote the role of standards. Draft copy has been produced and is currently under review before moving to the design stage.

<sup>19</sup> BSI (2021) PAS 7055:2021 Button and coin batteries. Safety requirements. Specifications [Online]. Available at: [PAS 7055:2021 Button and coin batteries – Safety requirements – Specification \(bsigroup.com\)](https://www.bsigroup.com/Standards/PAS-7055-2021-Button-and-coin-batteries-Safety-requirements-Specification) {Accessed on 7 June 2021}

## Phase 1: UK heat networks pre-standardization research project

**Heat networks will play a significant role in the long-term decarbonization of heating in the UK, supporting the UK's ambitious targets to reach net zero by 2050. The aim of this project is to identify, scope out and outline the standards infrastructure that can support the development of an effective long-term policy and regulatory framework for the heat networks market; consider and prioritize standards development that in the short-term can accelerate and ensure the safe, transparent and consumer-focused growth of the market.** This project is split into two phases: 1) pre-standardization research outlining high-level recommendations for the creation of a robust heat networks standards infrastructure, and 2) standardization activities and development to address the research. Funding was provided for Phase 1.

BSI published its report of key standardization needs and recommendations in February 2021<sup>20</sup>. This was achieved through mapping existing NSB-led standards and industry guidance, challenge-led and opportunity-driven stakeholder interviews, and research-validation webinars.

The key recommendations put forward to the UK and Scottish Governments include:

- **Standards development:** an initial cluster of standards to address the challenges, and capture the growth opportunities, as identified by key market players.
- **Enabling effective use and uptake of standards:** To support the evolving heat networks market and policy framework, creating a certification and testing regime, developing skills to plug expertise gaps, and ensuring alignment between standards and a long-term policy and vision

The report recommends standards development with wide, cross-heat networks scopes and applicability, through to standards that focus on individual heat networks aspects or processes, to single issue-focused standards. The standards recommended include: a guidance or framework standard; introducing CIBSE's Heat Networks: Code of Practice for the UK<sup>21</sup>.

Summary of benefits:

- Form the basis of an effective long-term market framework
- Ensure the safe, transparent, and consumer-focused growth of the market
- Empower companies and investors to develop products and processes that are aligned with the transition towards heat networks
- Achieve a consistent, integrated, flexible and forward-looking standards infrastructure
- Support the realization of policy principles and provide guidance to industry developing heat networks
- Ensure collaboration between key stakeholders engaged in the investment, design, manufacture and operation of heat networks
- Build upon existing international standardization efforts, avoiding duplication and overlap, and efficient use of available resource and technical expertise
- Disseminate best practice internationally as the UK embarks on a transformation of its heat networks.

<sup>20</sup> Report download available at: [UK Heat Networks | BSI \(bsigroup.com\)](https://www.bsigroup.com)

<sup>21</sup> Code of Practice available at: [CIBSE/ADE Heat Networks: Code of Practice for the UK \(2015,2020 update\)](https://www.cibse.org/ade-heat-networks-code-of-practice).

### Development of Designated Standards process and pipeline – Phase 1

**This project aims to understand and communicate the impact of designated standards at the beginning of 2021 and establish a means of supporting and governing the designation of standards and communicating with government to ensure that BSI can provide the most accurate and effective service.** The main outputs were to: 1) agree a future government process for the designation of standards and confirming the data sources and data exchange between standards development organizations, BSI, and the government, and 2) agree and implement labels to be added to BSI's commercial channels to distinguish designated standards.

This project team is currently still working with the government to finalize the process for data exchange as well as reporting requirements including feedback from national committees on suitability for designation and is nearing completion of labelling designated standards on commercial channels to aid users and clients.

### Inclusive Data and Analysis – dealing with unconscious bias in standards

This project aims to explore how data is used in the development of standards and how data usage impacts on the inclusiveness of standards. The main output of this project is a BSI Flex Standard. It is expected that this BSI Flex will give guidance on how data is used in the development of standards. This includes data used to create standards and where the standard specifies use of data or data collection.

The Flex is expected to cover:

- Classification of the ways data is used in standards development, including a segmentation of different data types: text, images, audio; and associated processing: filtering, statistics, deterministic algorithms, and AI.
- Considerations on the way data can introduce bias or exclusion into the standards development process. This includes both data used to create the standard and data or data collection specified as part of the standards.
- Classification of the nature of impacts of data bias or exclusion and the communities affected. This can include impacts related to protected characteristics (race, gender, etc.) as well as non-protected characteristics (height, weight, dietary needs etc.)
- Consideration of risk assessments and screening methods to check and appraise the inclusiveness of data in standards development.
- Informative examples of the above.

But would not cover:

- Specific aspects of product or service design, although it may refer to where data considerations are important in the product or service lifecycle.
- Legal requirements for equality and diversity, although it may consider how these define data inclusivity decisions.
- Data privacy or security, although it may consider how these define data inclusivity decisions.

This BSI Flex Standard is for use by standards development organizations but could also be used by government for the development of policy and regulation. BSI has secured a Technical Author and ran the project initiation meeting in early May.

### Programme to sustain/grow CPIN membership

**This project aims to build on and strengthen recruitment and retention of CPIN representatives, both of which have been impacted by the new ways of working during the Covid-19 pandemic.** The project aims to deliver knowledge and tools that the Consumer Team can use on an ongoing basis across the areas of recruitment, onboarding, and retention. The main output of this project is a suite of research and training resources across the three stages of recruitment, onboarding, and retention. These include recommendations for improved recruitment strategies; updated training materials and an onboarding plan for new members, and an engagement survey of CPIN reps to inform an effective retention programme. BSI has completed the technical content and pagination of training materials for CPIN members. With continual improvement in mind, BSI has begun design refinements to increase functionality so that materials can be effectively and periodically updated.

The survey results have already provided useful insights for the BSI Consumer team on the challenges and opportunities in sustaining CPIN's membership and was presented to CPIN members at CPIN's virtual summer meeting in July.

### Protocol for identifying the impact of consumer relevant standards

**This project aims to explore how the Consumer Team can identify, from the thousands of standards published each year, those with significant impact on consumers, so that CPIN can direct its resources accurately and ensure the consumer's voice is heard to maximum effect.** The main outputs of this project are recommendations for how the Consumer Team should proceed, prototypes and mock-up assets for a revised prioritization process.

The prototype has been tested by Standards Development Managers and the Consumer Team for ease of use and applicability. Discussions are to take place with relevant BSI teams about a pilot roll-out.

### Analysis of use of public UK consumer organization data

**This project aims to increase understanding across BSI of how publicly available data can be used to: identify priorities for BSI's consumer programme; identify opportunities for collaboration with other stakeholders; inform policy; inform consumer communications.**

BSI delivered a report as the project's main outcome. It includes an evaluation of available data and how it is used by consumer organizations, and analysis of how data can be utilized by CPIN to increase collaboration with the Consumer Forum, develop CPIN activity and meet policy objectives. A database tool for CPIN's use has been developed as part of this project to enable CPIN members to pinpoint relevant sources of public data, according to CPIN's priority areas. The tool and research outcomes was presented to CPIN Representatives at the CPIN virtual summer meeting in July 2021.

### Protecting the Virtual Consumer

**This project aims to explore in depth the role that standards can play in creating safer, better, and fairer online marketplaces where consumers can be confident that their rights can be protected, through transparent and visible operating practices.** The main output of this project was the delivery of a report that outlines key issues in online marketplaces, evaluated against potential/current detriment; identification of where online marketplace issues interact and potentially cause complexity with other issues in CPIN digital priority areas, and principles for good practice in online marketplaces. The report will form the basis of CPD session to be delivered to CPIN Representatives on this emerging area of consumer concern later in 2021.

## 5.4. Support for standards development: Committees spend summary

The total funding requirement for the 758 eligible committees is £4.9M. BEIS support for standards development committees is around £700k. Therefore, BSI covers the difference of over £4m additional funding requirement to ensure these committees are appropriately managed and supported.

Priority areas <sup>22</sup>	No. of committees in priority areas	No. of eligible committees	Total days requiring funding <sup>23</sup>	Funding requirement <sup>24</sup> 20/21 at Funding Year End
<b>Government and Public Interest</b> Consumer safety and protection Public Procurement, Regulation / Legislation, UK competitiveness and productivity	<b>395</b>	<b>168</b>	<b>2,609</b>	<b>£1,813,363</b>
<b>Government and Public Interest</b> NSB international work programme	<b>435</b>	<b>435</b>	<b>1,426</b>	<b>£1,003,587</b>
<b>BEIS-specific priority areas &gt;&gt;</b> Exploits UK expertise in industry Infrastructure (including digital) Innovative science and technology Significant impact on UK business Sustainability	<b>252</b>	<b>145</b>	<b>2,892</b>	<b>£1,994,201</b>
<b>Total (Committees)</b>	<b>1,082</b>	<b>748</b>	<b>6,927</b>	<b>£4,811,151</b>
<b>Standardization supporting innovation</b> Priority Area project programme – invoiceable costs (legacy programme) <sup>25</sup>	-	-	-	<b>£29,723</b>
<b>Total</b>				<b>£4,840,874</b>

**Table 3:** BEIS support for standards development committees is around £700k. BEIS provides a general contribution to the costs of running committees which 1) address a HMG priority and b) are non-commercially viable. BSI supplements the remaining balance (funding requirement).

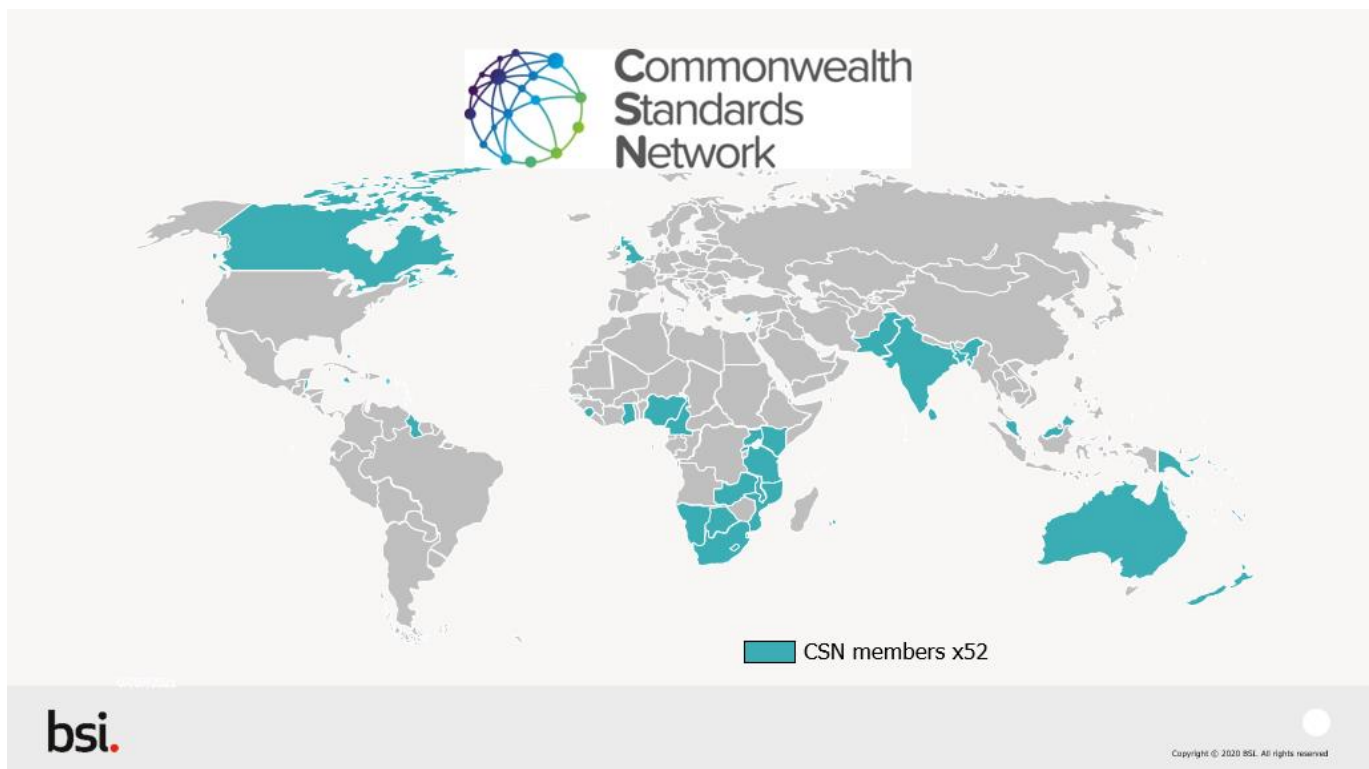
<sup>22</sup> The total cost and days worked are assigned to one focus area only, without overlaps, although some committees are eligible in more than one.

<sup>23</sup> Using the BEIS contribution only, actual days worked are significantly higher than the total displayed.

<sup>24</sup> The cost of the support in the areas shown exceeds funding provided, with BSI covering the shortfall. Costs only account for the amount of BSI staff time required to run these committees, not for any broader running costs. Funding available: £736k is earmarked for running costs of committees.

<sup>25</sup> Funding applied for Priority Areas projects relates to activity delivered in the year.

## 6. In focus: Commonwealth Standards Network Phases 1 & 2

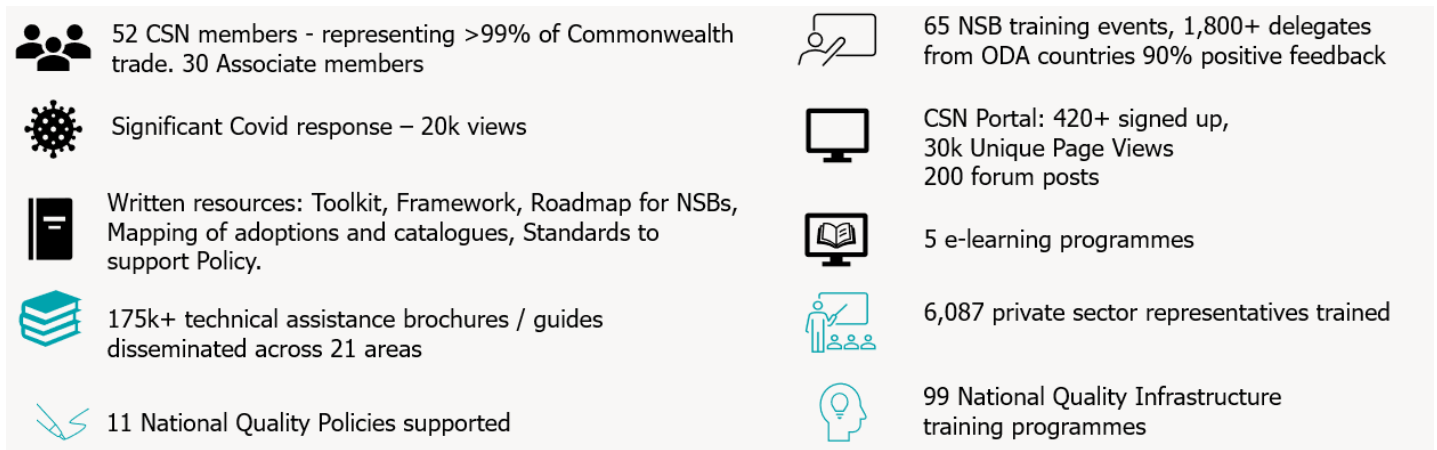


**Figure 9:** The CSN includes members from 52 Commonwealth countries, spread across the globe.

The Commonwealth Standards Network (CSN) project (£6.16m) funded through a FCDO Accountable Grant Arrangement was launched in May 2018. The project involved working with NSBs and key related stakeholders to support trade, economic growth, and prosperity to all Commonwealth Overseas Development Assistance (ODA) countries by promoting increased awareness, development and use of international standards.

The programme has included four project work streams. There is a CSN overarching 'Network' stream that has been supporting all Commonwealth ODA countries: it includes CSN membership of 52 countries, this stream has delivered 65 standards training sessions to more than 1,800 delegates from ODA Commonwealth countries and an online platform which includes written resources and eLearning modules that form an important part of the CSN's legacy.

The programme includes three bespoke technical assistance projects split by region: Africa, the Caribbean and Oceania. The technical assistance projects have developed the skills necessary to support domestic standards development, use international standards effectively for trade, and have empowered NSBs to take an active role in international standards development. The project has targeted Quality Infrastructure institutions (particularly National Standards Bodies) but also actively engages with and supports private sectors throughout.



**Figure 10:** Summary of key outputs of the CSN.



## Case Study: Raising awareness about the benefits of using standards in Uganda






### The challenge: reaching the Ugandan people

Standards play an important role in promoting productivity and efficiency, reducing costs, removing barriers to trade, and driving economic growth. They bring confidence to regulators, businesses, and consumers that products and services are safe, reliable and of good quality. The challenge is to make these standards known and understood to the people who need them.






Standards are available in Uganda; however, these standards are very technical in nature and usually written in English - and with approximately 70% of Uganda's people being small-holder farmers from indigenous backgrounds and speaking in several native languages - it was a challenge to make the key points of the standards understood, and available to farmers in this vastly multilingual country.

### The solution: partnering with the CSN to simplify standards

The CSN worked in partnership with the Uganda National Bureau of Standards (UNBS) to produce simplified standards for five key value chains. Experts from the UNBS Technical Committees identified key 'do's and don'ts' that farmers needed to follow to harvest saleable, good quality produce. The brochures have been printed in 13 languages and include illustrative pictograms and easy-to-understand information for the benefit of farmers. Translated versions were produced according to the language spoken in each crop region. In all, 73,000 brochures have been produced.

RICE SIMPLIFIED GUIDELINES ENGLISH VERSION	SHEA NUTS SIMPLIFIED GUIDELINES ENGLISH VERSION	AVOCADOS SIMPLIFIED GUIDELINES ENGLISH VERSION	PINEAPPLES SIMPLIFIED GUIDELINES ENGLISH VERSION	SOYBEANS SIMPLIFIED GUIDELINES ENGLISH VERSION
				

QUALITY AVOCADOS	HARVEST	SORTING AND GRADING	STORAGE	PACKAGING
<p>Quality avocados (fruits) to be supplied fresh to the customer shall be:</p> <ul style="list-style-type: none"> <li>Mature green, brownish or purple colour</li> <li>Whole, Sound, and Clean</li> <li>Free of insect pests that affect appearance</li> <li>Free from damage caused by pests</li> <li>Firm</li> <li>Free of bruises</li> <li>Free of foreign smell or taste</li> <li>Free of abnormal external moisture</li> <li>Free of bitter taste or fibres</li> <li>Shall possess a 10mm clean cut stalk if present or be dry and intact at the place of stalk attachment and</li> <li>Shall have a dry matter content of at least 21% at the time of harvest.</li> </ul> 	<p><b>Do not harvest:</b></p> <ul style="list-style-type: none"> <li>Immature fruit</li> <li>During extremely hot weather</li> <li>During or soon after rain</li> <li>By shaking or using sticks</li> </ul> <p><b>Do:</b></p> <ul style="list-style-type: none"> <li>Harvest mature fruit only</li> <li>During cool times of the day</li> <li>Leave 10mm of stalk intact</li> <li>Put fruits into clean containers in a cool place out of the sun</li> </ul> 	<p><b>Do not mix:</b></p> <ul style="list-style-type: none"> <li>Different varieties, sizes, shapes and colours</li> <li>Defective/infested/damaged fruits with sound ones</li> </ul> <p><b>Do:</b></p> <ul style="list-style-type: none"> <li>Sort according to varieties, shape and colour</li> <li>Classify the fruits according to physical condition and appearance into:</li> </ul> 	<p><b>Do not store in:</b></p> <ul style="list-style-type: none"> <li>Dirty or hot places</li> <li>The same room with animals, chemicals, or where any other human activity is performed</li> <li>Non-aerated containers, or</li> <li>Directly on the ground</li> </ul> <p><b>Do store:</b></p> <ul style="list-style-type: none"> <li>Off the ground</li> <li>In a well-aerated cool, dry, clean place</li> <li>In clean well-aerated containers</li> <li>In vermin-proofed areas</li> </ul> 	<p><b>Do not use:</b></p> <ul style="list-style-type: none"> <li>Packaging that causes damage to the fruits during handling, transportation and storage</li> <li>Non food grade packaging</li> </ul> <p><b>Do:</b></p> <ul style="list-style-type: none"> <li>Use only safe food grade packaging materials that suitably protect the avocados during handling, transportation and storage</li> </ul> 

### The results: increased business

Translating the standards in the local languages have made them more accessible, easily understood and relatable to the farmers, ultimately leading to better quality products and an improved market for their businesses. Feedback from over 600 smallholder farmers indicated support was the first of its kind; some of the basic quality requirements outlined in the translated brochures quickly enabled them to make the required changes to bring in more saleable products to market, which significantly helped improve their businesses and livelihoods.

## 7. Support for participation in standardization

### 7.1. Assisted International Travel Scheme (AITS)

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.

With the ongoing restrictions to curtail the spread of Covid-19, meetings are primarily held virtually and hence, no AITS funding was required in 2020-21. Virtual working has come with its own challenges to BSI's committee members, as they transition to the new ways of working whilst continuing to deliver new and amended standards effectively.

#### Case study: New Ways of Working – a view from our Committee Members

##### Chris Parker, UK nominated Convenor of ISO/TC 268/WG 4 Smart processes and operating models for sustainable communities

Chris Parker convenes the fourth working group of ISO/TC 268 Sustainable Cities and Communities, the main international technical committee developing standards for smart and sustainable cities and communities, which is mirrored in the UK by SDS/2, and its remit includes urban and rural areas. Chris is key in maintaining international relationships with ISO member countries and experts and bridging the gap between these and BSI/UK.

Prior to the pandemic, all formal WG 4 meetings were held face-to-face, and since the pandemic started Chris has run three virtual sessions. **"Virtual meetings were productive, however, we have seen a decrease in attendance,"** Chris stated, "it was essential [to my role] to ensure that the transition [from physical] to virtual meetings was smooth and the member countries did not feel a difference in the results the WG 4 delivered in its role."

Chris highlighted that whilst face-to-face meetings allow for greater consensus building with key stakeholders in the ISO process, he observed that **those previously unable to travel international for meetings were now able to attend virtually with ease.** He has worked with BSI and ISO to ensure the smooth running of all virtual meetings **to maintain the same level of consensus** the group delivered prior to the pandemic.

##### Michael Mulquin, Chair of IEC Smart Cities Systems Committee

As a UK nominated Chair of the IEC Smart Cities Systems Committee, Michael commented that working during the pandemic was challenging, particularly because work is continuing to accelerate. The Committee's last physical meeting was held in Mexico, 2015. Since, there were two virtual plenary meetings and the next one scheduled for July 2021.

Michael highlighted the importance of **relationship building and issue resolution** in plenary meetings, a greater challenge when meeting virtually. Michael commented, "Our virtual meetings are limited to a three-hour session each day, because of the challenge of our experts being in **many different time zones.** Even then, some of the experts are unavoidably having to join the meetings during the night."

Despite the pandemic Michael's committee has accomplished a great deal in the last 16 months **to maintain the UK as the leading country in the smart cities arena:** the publication of its first **international standard** on electrical supply continuity during disasters, an **IEC Systems Reference Deliverable** on the methodology for concepts building, four **virtual workshops** to extend the pool of experts, and **collaboration** with the IEC ISO ITU Joint Smart Cities Task Force, with the remit of developing coordinated, consistent guidance for cities including service and product provision. Alongside this, the Committee thoroughly reviewed its processes and structures to secure effective future standards development.

## 7.2. Consumer & Public Interest Fund (CPIF)

The mission of [BSI's Consumer and Public Interest Network](#) (CPIN) is to empower and protect consumers through effective consumer representation in British Standards. CPIN Members participate in the development of standards to highlight consumer issues, make sure that real problems are addressed, minimize the risk of consumer harm, and make a positive difference to consumers' lives. 151 committees or standards-making groups (such as Steering Groups for fast-track standards) are currently supported by a member of CPIN.



# 151

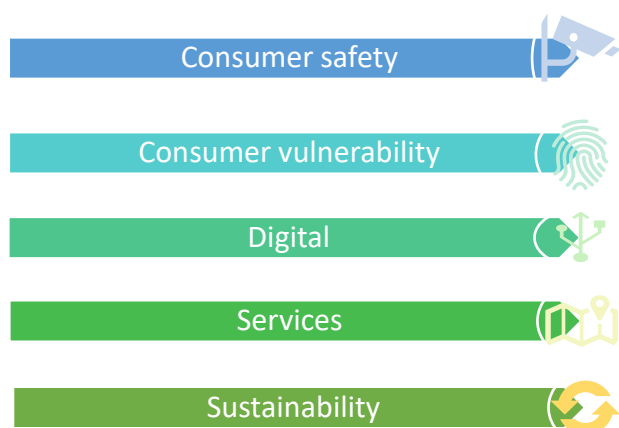
committees supported by a member of the Consumer and Public Interest Network

Activities that are supported by CPIF included:

- Attendance of consumer representatives at UK and international standardization meetings
- CPIN meetings
- Training of consumer representatives
- Awareness-raising publications and background research projects, to develop a robust evidence base.

### CPIN priorities

Committee meetings attended by CPIN representatives span a range of technical areas across the five CPIN Priority areas:



There are a set of leaflets explaining how these priorities are applied by CPIN to their work in standards at the BSI website: [www.bsigroup.com/consumers](http://www.bsigroup.com/consumers).

**Figure 8:** The five CPIN priority areas

### CPIN technical work

Between April 2020 and March 2021, consumer representatives have been involved in approximately 100 UK and international standards technical committee meetings and working group meetings. Standards-makers meetings continue to take place in virtual mode, which has resulted in meetings being reconfigured to take place over several days.

CPIN has been increasingly participating in the development of fast-track standards, including PAS and Flex Standards development, including those sponsored by BEIS. Fast-track standards present a challenge for volunteer CPIN representatives due to their intensive production schedule.

Areas that have benefited from consumer involvement include:

- Consumer safety: button batteries, putting safe products on the market, trampoline parks; fire-risk assessment in domestic buildings
- Consumer vulnerability: ageing societies, baby boxes, toy safety; children's furniture
- Digital: e-Commerce, identity management, privacy by design, smart textiles
- Services: online user identification systems, tourism services, European horizontal service standards
- Sustainability: e-scooters, electric vehicles, service life planning; sustainable finance, and smart and sustainable cities and communities.

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### **Case Study: CPIN and Consumer Forum collaborate in development of PAS 7055: Button Batteries**

Button batteries is an area of emerging serious consumer protection concern. Because of this, the Steering Group to develop the PAS on specifying safety requirements for button batteries requested that consumers are represented in its membership. CPIN responded by assigning one of its members to the Group.

The assigned CPIN representative worked extremely effectively to identify the priority issues of this standard, to ensure that the standard was scoped covering a wide a range of consumer products. In order to develop a strong CPIN position at the Public Consultation stage, and to address all the consumer protection aspects of the PAS, CPIN's representative led a roundtable session with representatives from Consumer Forum members ESF, CAPT and ROSPA.

As a result of this collaboration, the standard, which was published at the end of April 2021, contains practical, consistent steps to protect vulnerable consumers.

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### **Events attended and organized**

Several meetings were organized/attended by consumer representatives and the BSI consumer team during the year:

- CPIN coordinators met monthly to support the delivery of CPIN representatives' work such as allocation of representatives to committees and prioritization of requests for representation.
- The CPIN Steering Group, comprising the Chair, Co-ordinators, and a small group of advisors, met quarterly to help drive CPIN's strategy.
- The Consumer Forum held its annual conference on 18 November 2020, which focussed on 'the Virtual Consumer'. The conference included a Q&A session with Alex Neill, CEO of Resolver, panel presentations on consumer vulnerability, safer online platforms, the

influence of consumer participation in standards for the virtual consumer, and the outlook internationally.

- CPIN held its Annual General Meeting virtually on 1 December 2020, which included a Continual Professional Development session on 'Making recycling easier for consumers' and updates from the Chair of CPIN, CPIN Co-ordinators, Consumer Forum Chair Liz Barclay, and BSI staff on policy matters relevant to CPIN.
- CPIN secretariat supported initiatives driven by CPIN representatives to share knowledge across the board. For example, CPIN recently held a well-subscribed 'Ethics in Standards' workshop to discuss how to navigate ethical challenges across a variety of subject areas.
- The Consumer Forum Council (formally CPISAC) met on 2 March 2021. Thirteen organizations, including government representatives, attended the meeting, which included:
  - A popular interactive session on the challenges and solutions for consumer organizations to engage in standards work,
  - A discussion on the challenges of fast-track standards for the consumer stakeholder, and
  - Updates on initiatives such as the Privacy By Design, for digital work undertaken by consumer organizations.

### Training for Consumer Representatives

During 2020-21, training has been delivered to:

- **New representatives** - Consumer Core Training for new representatives was delivered in March 2021 in a virtual capacity for new CPIN members.
- **Other stakeholders** – on the importance of the consumer voice in standards to a variety of stakeholders, including the Which? Science Team, Commonwealth Standards Network, and the Royal Society of Arts (Textiles).
- **BSI Standards Development Managers** – and in particular its new staff, a bite-sized training session on the role of consumers in standards and their role in consumer protection. Content from the training has been included in group presentations to BSI departments to maximize impact.

### Changes to BSI CPIN

The review of CPIN and how it delivers improvements to British Standards through consumer representation continued and further changes were implemented. Liz Barclay was appointed as the Chair of the BSI Consumer Forum in June 2019 for a two-year term and chaired the Consumer Forum Council which met twice in 2020/2021.

The CPIN Chair attends the Consumer Forum Council and chairs the CPIN Steering Group, which comprises three advisors and five coordinators and meets four times annually.

The five coordinators meet monthly to manage the increasing activity of CPIN members, who are representing consumers in approximately 150 UK committees, across ten sectors. The activity is prioritized by the potential impact of standards to reduce the risk of harm or improve the lives of UK consumers.



## 8. In focus: Enabling safer working practices

The COVID-19 pandemic has fundamentally shifted the way people live and work. BSI has responded to the challenge, primarily through the publication of the Safe Working Guidelines, accounting for the increased risk the disease presents to the health, safety, and well-being of people in all work settings. The Guidelines provide guidance, to all organizations, to deal with the complexities of this changing situation and adapt their own ways of working.

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*“Since the UK Government announced gradual easing of the lockdown, business leaders across the country have been taking steps to ensure that their working environment is safe. Now it is imperative that they come together to achieve their shared goal.*”

*“Our role as the National Standards Body is to bring people together so they can share their expertise and knowledge and agree what good practice looks like. Together we can help to make the working environment safe for all”.*”

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Dr Scott Steedman, Director-General, Standards (BSI)



### Case study: safe working during the COVID-19 pandemic

**Challenge:** In 2020, the COVID-19 pandemic turned the world of work upside down, with everyone facing unprecedented challenges. Organizations needed to react quickly to protect the health of their employees and the public. As part of this, they needed to access up-to-date guidance on the health, safety and well-being of workers.

**Approach:** BSI worked with experts from many sectors and disciplines, with knowledge and experience ranging from HR, health and safety and facilities management, to accessibility and security. The Advisory Group rapidly developed good-practice guidance, applicable to all organizations and workers which complemented information from government, regulators and professional bodies. The Guidelines created a framework for safe working during the pandemic, to protect people from work-related risks from COVID-19. They included practical recommendations on how to identify and manage risks.

**Outcome:** BSI published its first Safe Working Guidelines BSI Flex standard in May 2020, and Versions 2 and 3 followed in July and August. The first version was produced in just two weeks and the subsequent iterations benefitted from comments received during public consultation. The Guidelines were then used as the basis of a new international standard, PD ISO/PAS 45005:2020, *Occupational health and safety management – General guidelines for safe working during the COVID-19 pandemic*. Developed in record time, in response to the urgency of the situation and the immediate need for information, by experts from over 30 countries, the international Guidelines published in December 2020. The document is free-to-access and has been widely used and downloaded over 20,000 times in the UK alone.

Source: BSI

### Special report: Working in the 'new normal'

BSI also produced a [special report on working in the 'new normal'](#), which provides insights from experts from a variety of disciplines on what organizations need to consider as they reopen their facilities. Specifically, BSI asked how organizations can:

- Re-open their facilities and enable access for their workforce, customers, and suppliers
- Adapt their processes and infrastructure to create a working environment that meets or exceeds required social distancing and protective measures
- Restore their business and exploit new opportunities to deliver products and services.

BSI has gathered these insights together in this Special Report. The aim is to give workers, businesses, and consumers some reassurance and confidence as the UK gets back to work in the 'new normal'.



## 9. Annexes

### ANNEX 1: BSI standards development committees

Technical committees are responsible for creating and maintaining our standards across a broad portfolio of subject areas and sectors, from ventilators to agricultural sustainability to online security. There are 1,987 published projects by committees that are supported in part by BEIS' core grant funding, including the 313 non-commercially viable Technical Committees and the CSC. Figure 2 reveals that nearly 50% of projects published are new documents (includes CSC statistics).

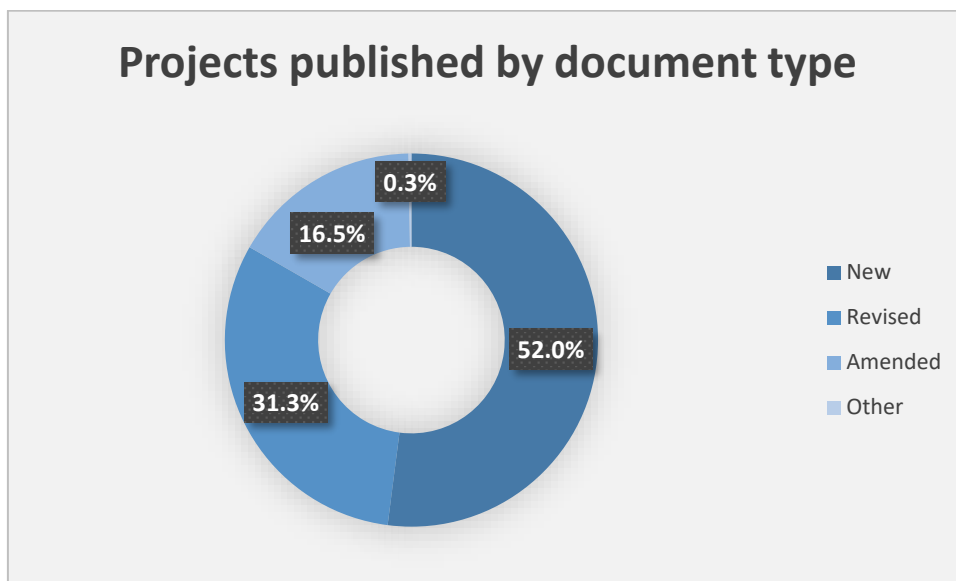


Figure 1: Types of projects published, either new, amended or revised.

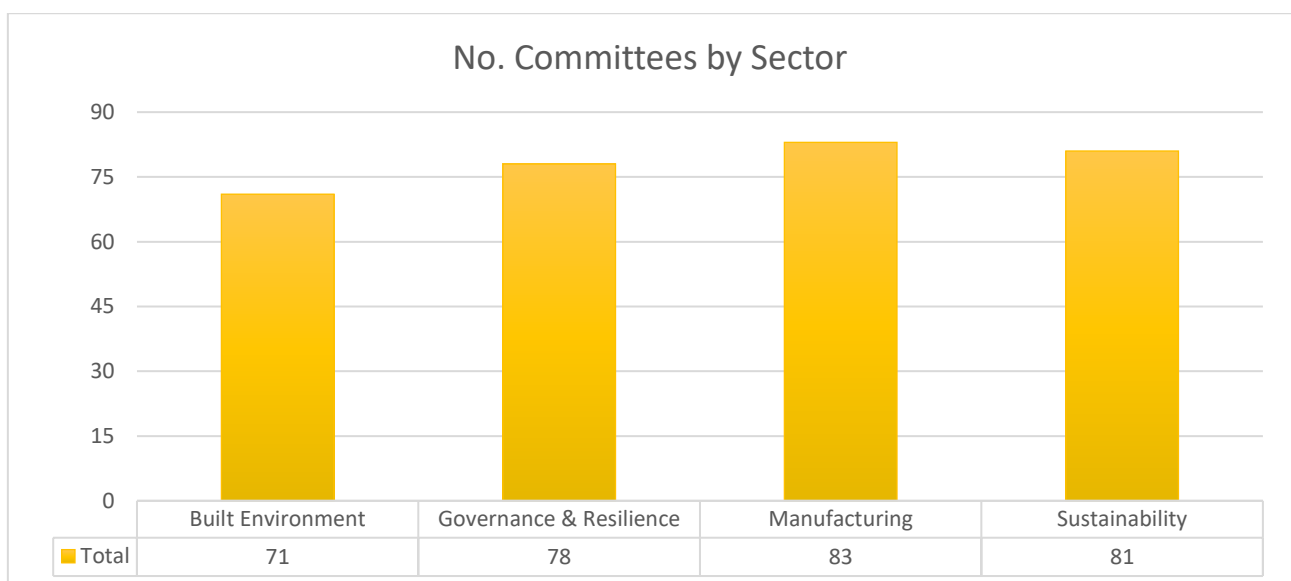


Figure 2: Number of supported committees broken down into sector; excludes CSC.

To search for individual committees or committees by subject area, refer to:

<https://standardsdevelopment.bsigroup.com/>

The table below lists the BSI standards development committees that received a funding contribution through the BEIS grant money in 2020-21. Committees are grouped by subject area. BEIS funding contributes towards committees' running costs when that committee is deemed non-commercially viable but supports HMG priorities.

**Table 1: Standards development committees that are supported by a contribution by BEIS, excluding CSC. There are 313 committees in total.**

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
<b>Exploits UK expertise in industry</b>		
ACE/20/1 UAS - General	Manufacturing	Aerospace
B/209 General building codes	Built Environment	Built environment
B/209/-/6 BS 8000 Co-ordination Group	Built Environment	Built environment
B/514/24 Access towers	Built Environment	Built environment
B/557 Construction products - Assessment of dangerous substances	Built Environment	Built environment
CB/1 Architectural Design & Construction	Built Environment	Built environment
CPW/172 Optics and Photonics	Manufacturing	Materials
FSM/1 Forensic Science Processes	Governance & Resilience	Business improvement
HCS/1 Human Capital	Governance & Resilience	Business improvement
HCS/1/2 International Human Resource Management	Governance & Resilience	Business improvement
MTE/1/2 Machine tools - Accuracy	Manufacturing	Other
PAI/43 Graphic technology	Manufacturing	Materials
PVE/3 Gas containers	Manufacturing	Oil and gas
PVE/3/1 Gas containers - Valve fittings for gas containers	Manufacturing	Oil and gas
PVE/3/3 Gas containers - Transportable gas containers - Cylinder design, construction and testing at the time of manufacture	Manufacturing	Oil and gas
PVE/3/7 Gas containers - Gas cylinder (receptacle) operations	Manufacturing	Oil and gas
PVE/3/8 Gas containers - Hydrogen technologies	Manufacturing	Oil and gas
QS/1/2 Quality Management System Standards	Governance & Resilience	Business improvement
SVS/2 Tourism services	Sustainability	Services
SVS/2/4 Recreational diving services	Sustainability	Services
SVS/2/5 Adventurous activities, expeditions, visits and fieldworks	Sustainability	Services

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
<b>Infrastructure (including digital)</b>		
L/13 Smart Energy Systems coordination group	Sustainability	Energy
AUE/16 Data Communication (Road Vehicles)	Manufacturing	Mobility
AUE/20 Vehicle on-board diagnostics, repair and maintenance information	Manufacturing	Mobility
B/504 Water supply	Built Environment	Built environment
B/504/-/1 Water Supply - External systems and components	Built Environment	Built environment
B/505/21 Drainage systems inside buildings	Built Environment	Built environment
B/505/40 Wastewater Treatment Plants > 50 PT	Built Environment	Built environment
B/507 Paving units and kerbs	Built Environment	Built environment
B/509 Road equipment	Built Environment	Built environment
B/509/1 Road restraint systems	Built Environment	Built environment
B/510 Road materials	Built Environment	Built environment
B/510/19 Bitumen and related products	Built Environment	Built environment
B/510/2 Surface treatments	Built Environment	Built environment
B/525/6 Use of masonry	Built Environment	Built environment
B/526/3 Site investigation and ground testing	Built Environment	Built environment
B/540/7 Thermal insulation for equipment and industrial applications	Built Environment	Built environment
B/540/8 Mirror committee for ISO/TC 163 - Thermal Performance and Energy use in the built Environment	Built Environment	Built environment
B/540/9 Reflective insulation and in-situ testing	Built Environment	Built environment
B/555 Construction design, modelling and data exchange	Built Environment	Built environment
B/555/-/6 Steering panel providing input into the EN ISO 19650 standards	Built Environment	Built environment
CB/- Construction & Built Environment Sector Policy and Strategy Committee	Built Environment	Built environment
CB/101 Service Life Planning	Built Environment	Built environment
CB/2 Engineering Design & Construction	Built Environment	Built environment
CB/4 Service Design	Built Environment	Materials
CB/5 Digitalization of the Built Environment Strategy Committee	Built Environment	Built environment
CB/501 Flood risk & watercourses	Built Environment	Built environment
EH/1/2 Transport noise	Sustainability	Environment
EL/1 Light and lighting applications	Manufacturing	Built environment
EPL/278 Intelligent transport systems	Manufacturing	Mobility
ESL/120 Electrical Energy Storage	Sustainability	Energy
GEL/105 Fuel cell technologies	Sustainability	Manufacturing – Electrical
GEL/50 Low Voltage Direct Current for Electricity Access	Sustainability	Energy

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
GEL/8 Systems Aspects for Electrical Energy Supply	Sustainability	Energy
GEL/82 Photovoltaic Energy Systems	Sustainability	Energy
IDT/2/17 Archives/records management	Governance & Resilience	Business improvement
IST/15 Software and systems engineering	Governance & Resilience	Digital improvement
IST/17 Cards and security devices for personal identification	Governance & Resilience	Digital improvement
IST/44 Biometrics	Governance & Resilience	Digital improvement
IST/60 IT Service Management and IT Governance	Governance & Resilience	Digital improvement
NCE/2 Radiation protection and measurement	Sustainability	Energy
NCE/8 Instrumentation, Control & Electrical Systems of Nuclear Facilities	Sustainability	Energy
PEL/114 Marine energy - Wave, tidal and other water current converters	Sustainability	Energy
PEL/14 Power transformers	Sustainability	Energy
PEL/57 Power systems management and associated information exchange	Sustainability	Energy
PEL/88 Wind turbines	Sustainability	Energy
PH/8/2 Graphical Symbols - Public Information Symbols	Governance & Resilience	Other
PSE/17 Materials and equipment for petroleum, petrochemical and natural gas industries	Sustainability	Oil and gas
PSE/17/2 Transmission pipelines	Sustainability	Oil and gas
SDS/2 Smart and sustainable cities and communities	Sustainability	Other
STI/10 Test methods for paints	Manufacturing	Materials
STI/21 Paint systems and surface preparation for metallic substrates	Manufacturing	Materials
STI/28 Paint systems for non-metallic substrates	Manufacturing	Materials
SVS/11 Transport services	Sustainability	Services
WEE/37/-/9 - Revision of BS 7608	Manufacturing	Manufacturing – General
WEE/46/5 Radiographic Testing	Manufacturing	Materials
WEE/46/9 Acoustic Emission Testing	Manufacturing	Materials

### **Innovative science and technology**

ACE/20 Unmanned Aircraft Systems	Manufacturing	Aerospace
ACE/68 Space systems and operations	Manufacturing	Aerospace
AMT/-/4 Biomimetics	Governance & Resilience	Digital improvement
AMT/10 Robotics	Manufacturing	Digital improvement
AMT/10/1 Ethics for Robots and Autonomous Systems	Manufacturing	Digital improvement

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
AMT/8 Additive manufacturing	Manufacturing	Manufacturing – Digital
AMT/9 Printed Electronics	Manufacturing	Manufacturing – Digital
ART/1 Artificial Intelligence	Governance & Resilience	Digital improvement
BTI/1 Biotechnologies	Manufacturing	Manufacturing – General
CH/315 Ageing Societies	Governance & Resilience	Healthcare
DLT/1 Blockchain and Distributed Ledger Technology	Governance & Resilience	Digital improvement
GEL/65 Measurement and control	Manufacturing	Manufacturing – Digital
ICT/1 Information Systems Co-ordination (RENAMED 20/5/19 was ICT/-/1)	Governance & Resilience	Digital improvement
IMS/1 Innovation management	Manufacturing	Other
IOT/1 Internet of Things	Governance & Resilience	Digital improvement
NTI/1 Nanotechnologies	Manufacturing	Manufacturing – Electrical
PEL/69 Electric vehicles	Sustainability	Mobility

### **Productivity and competitiveness**

AMS/1 Asset management	Governance & Resilience	Business improvement
AMT/4 Industrial data and manufacturing interfaces	Manufacturing	Manufacturing – Digital
DS/1 Dependability	Governance & Resilience	Business improvement
DS/1/2 Obsolescence management	Governance & Resilience	Business improvement
KMS/1 Knowledge management systems	Governance & Resilience	Business improvement
MS/6 Methodologies for business process improvement using statistical methods	Governance & Resilience	Business improvement
SS/5 Acceptance sampling schemes	Governance & Resilience	Business improvement
SVS/1/4 Collaborative business relationships	Sustainability	Services
TCI/66/-/3 Clothing sizing systems	Manufacturing	Manufacturing – Consumer

### **Public procurement**

DEF/1 Defence standardization	Governance & Resilience	Security
FMB/1 Facilities Management Strategy Committee	Built Environment	Built environment
FMW/1 Facilities management	Built Environment	Built environment
GEL/20 Electric cables	Manufacturing	Manufacturing – Electrical
GEL/20/11 Electric Cable accessories	Manufacturing	Manufacturing – Electrical

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
<b>Safety of products and services</b>		
ACE/1/-/1 Cabin air quality on commercial aircraft	Manufacturing	Aerospace
ACE/1/-/3 Rotorcraft Ditching	Manufacturing	Aerospace
ACE/20/2 UAS - Product manufacturing and maintenance	Manufacturing	Aerospace
AT/452 Assistance animals and animal training competencies	Governance & Resilience	Services
AUE/15 Safety related to vehicles	Manufacturing	Mobility
AUE/18 Tanks for the transport of dangerous goods	Manufacturing	OHS
AUE/32 Electrical and electronic components and general system aspects (Road vehicles)	Manufacturing	Mobility
AUE/7 Automobile occupant restraint systems	Built Environment	OHS
B/512 Ladders	Built Environment	Manufacturing – Consumer
B/520 Glass and glazing in building	Built Environment	Built environment
B/525 Building and civil engineering structures	Built Environment	Built environment
B/525/-/11 Structural Glass	Built Environment	Built environment
B/525/-/3 Assessment and Retrofitting of Existing Structures	Built Environment	Built environment
B/525/-/32 Eurocodes structural fire design co-ordination panel	Built Environment	Built environment
B/525/10 Bridges	Built Environment	Built environment
B/525/10/1 Bridge Loading	Built Environment	Built environment
B/525/12 Design of offshore structures	Built Environment	Built environment
B/525/2 Structural use of concrete	Built Environment	Built environment
B/525/4 Composite structures	Built Environment	Built environment
B/542 Roofing and cladding products for discontinuous laying	Built Environment	Built environment
B/542/11 Lead sheet roof and wall coverings	Built Environment	Built environment
B/542/8 Light transmitting plastics sheeting for roofing and cladding. Prefabricated accessories for roofing	Built Environment	Built environment
CB/3 Construction Products	Built Environment	Materials
CH/100 Healthcare and Medical Equipment	Governance & Resilience	Healthcare
CH/121 Anaesthetic and respiratory equipment	Governance & Resilience	Healthcare
CH/121/1 Breathing attachments and anaesthetic machines	Governance & Resilience	Healthcare
CH/121/5 Airways and related equipment	Governance & Resilience	Healthcare
CH/121/9 Lung Ventilators & Related Equipment	Governance & Resilience	Healthcare

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
CH/150 Implants for surgery	Governance & Resilience	Healthcare
CH/150/4 Surgical Implants - Bone and Joint Replacements	Governance & Resilience	Healthcare
CH/150/5 Surgical Implants - Osteosynthesis and spinal devices	Governance & Resilience	Healthcare
CH/157 Mechanical contraceptives	Sustainability	Healthcare
CH/172 Ophthalmic optics	Governance & Resilience	Healthcare
CH/172/3 Spectacles	Governance & Resilience	Healthcare
CH/172/6 Ophthalmic instruments	Governance & Resilience	Healthcare
CH/172/7 Eye implants	Governance & Resilience	Healthcare
CH/173/1 Wheelchairs	Governance & Resilience	Healthcare
CH/210 Quality management and corresponding general aspects for medical devices	Governance & Resilience	Healthcare
CH/210/6 Application of post market surveillance systems to medical devices	Governance & Resilience	Healthcare
CH/403 Aesthetic Surgery and Aesthetic Non-Surgical Medical Services	Governance & Resilience	Healthcare
CH/437 Electronic Cigarettes & E-liquids	Governance & Resilience	Healthcare
CH/62 Electrical Equipment in Medical Practice	Governance & Resilience	Healthcare
CH/62/2 Diagnostic imaging equipment	Governance & Resilience	Healthcare
CH/62/3 Equipment for radiotherapy, nuclear medicine and radiation dosimetry	Governance & Resilience	Healthcare
CII/47 Pyrotechnic articles	Sustainability	OHS
CPL/116 Safety of motor-operated electric tools	Manufacturing	Manufacturing – Consumer
CPL/34 Lamps and Related Equipment	Manufacturing	Manufacturing – Consumer
CPL/59 Performance of household electrical appliances	Sustainability	Manufacturing – Consumer
CPL/59/1 Dishwashers and washing machines	Sustainability	Manufacturing – Consumer
CPL/59/6 Floor treatment appliances	Sustainability	Manufacturing – Consumer
CPL/61 Safety of household and similar electrical appliances	Manufacturing	Manufacturing – Consumer
CPL/61/1 Motorised appliance group	Manufacturing	Manufacturing – Consumer
CPL/61/10 Floor treatment machines (industrial)	Manufacturing	Manufacturing – Consumer



<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
CPL/61/7 Safety of electrical appliances - Heated appliance group	Manufacturing	Manufacturing – Consumer
CPL/72 Electrical control devices for household equipment and appliances	Manufacturing	Manufacturing – Electrical
CW/1 Safety of child use and child care products	Governance & Resilience	Manufacturing – Consumer
CW/1/-/1 BS on Baby Boxes	Governance & Resilience	Manufacturing – Consumer
EH/1 Acoustics	Sustainability	Environment
EH/1/1 Hearing	Sustainability	Environment
EPL/100 Audio, video and multimedia systems and equipment	Manufacturing	Manufacturing – Digital
EPL/100/4 Cable distribution equipment and systems	Manufacturing	Manufacturing – Electrical
EPL/100/5 Multimedia, IT and accessibility equipment	Manufacturing	Manufacturing – Digital
EPL/66 Safety of measuring, control and laboratory equipment	Manufacturing	Manufacturing – Electrical
EPL/80 Maritime navigation and radiocommunication equipment and systems	Manufacturing	Manufacturing – Digital
EXL/23/1 Flame arresters	Governance & Resilience	OHS
EXL/31/1 Gas detectors	Governance & Resilience	OHS
EXL/31/2 Intrinsically safe apparatus	Governance & Resilience	OHS
FSH/12 Fire detection and alarm systems	Built Environment	Fire
FSH/18 Fixed fire fighting systems	Built Environment	Fire
FSH/18/5 Watermist systems	Built Environment	Fire
FSH/21 Reaction to fire tests	Built Environment	Fire
FSH/22/-/8 External fire exposure for roofs	Built Environment	Fire
FSH/24 Fire safety engineering	Built Environment	Fire
FSH/25 Smoke, heat control systems and components	Built Environment	Fire
FSS/0 Fire safety and security systems	Built Environment	Fire
FW/0 Furniture	Manufacturing	Manufacturing – Consumer
GEL/106 Human exposure to low frequency and high frequency electromagnetic radiation	Manufacturing	Manufacturing – Electrical
GEL/20/6 Electric Cables for Ships	Manufacturing	Manufacturing – Electrical
GME/21 Mechanical vibration, shock and condition monitoring	Manufacturing	Manufacturing – General
GME/21/6 Mechanical vibration, shock and condition monitoring - Human exposure to mechanical vibration and shock	Manufacturing	Manufacturing – General

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
GME/21/7 Mechanical vibration, shock and condition monitoring - Condition monitoring	Manufacturing	Manufacturing – General
GME/33 Small craft	Manufacturing	Other
GSE/22 Safety and control devices for gas and oil burners and gas burning appliances	Sustainability	Oil and gas
GSE/29 Gas-fired central heating boilers (domestic and non-domestic) and domestic gas-fired water heaters	Sustainability	Oil and gas
GSE/35 Gas cooking appliances (domestic)	Sustainability	Energy
GSE/36 Independent gas-fired space heaters	Sustainability	Oil and gas
GW/1/12 Social alarms	Governance & Resilience	Security
IOT/1/-/5 Privacy by Design	Governance & Resilience	Digital improvement
LBI/1/1 Laboratory furniture and fittings	Manufacturing	OHS
MCE/3/3 Packaging machines	Governance & Resilience	OHS
MCE/3/4 Fairground and amusement park machinery and structures - Safety	Governance & Resilience	OHS
MCE/3/5 Food industry machines	Governance & Resilience	OHS
PEL/121/1 Low voltage switchgear and controlgear	Sustainability	Manufacturing – Electrical
PEL/121/2 Low voltage switchgear and controlgear assemblies	Sustainability	Manufacturing – Electrical
PEL/23/4 Protected type plugs and sockets	Manufacturing	Manufacturing – Electrical
PEL/78 Tools for live working	Sustainability	OHS
PH/14 Firefighters' personal protective equipment	Built Environment	OHS
PH/2 Eye protection	Governance & Resilience	OHS
PH/3 Protective clothing	Governance & Resilience	OHS
PH/4 Respiratory protection	Built Environment	OHS
PH/9 Applied ergonomics	Governance & Resilience	OHS
PH/9/-/1 Ergonomics of the physical environment	Governance & Resilience	OHS
PKW/0/4 Packaging - Dangerous Goods	Manufacturing	Materials
PRI/26 Burning behaviour of plastics and rubbers	Manufacturing	Materials
PSE/18 Industrial valves, steam traps, actuators and safety devices against excessive pressure	Manufacturing	Energy
PSE/18/1 Industrial valves, steam traps, actuators and safety devices against excessive pressure - Valves - Basic standards	Manufacturing	Energy

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
PSE/18/5 Industrial valves, steam traps, actuators and safety devices against excessive pressure - Valve actuators	Manufacturing	Energy
PTI/15 Natural Gas and Gas Analysis	Sustainability	Oil and gas
RTS/1 ISO 39001 Road Traffic Safety Management systems	Governance & Resilience	Mobility
SME/32 Ships and marine technology - Steering committee	Governance & Resilience	Other
SVS/0 Customer service - Fundamental principles	Sustainability	Services
SVS/20 Automotive Services	Sustainability	Services
SW/136 Sports, playground and other recreational equipment	Governance & Resilience	Manufacturing – Consumer
SW/65 Children's playground equipment	Governance & Resilience	Manufacturing – Consumer
TCI/100 Co-ordination of activities in textiles and clothing	Manufacturing	Manufacturing – Consumer
TCI/100/1 Co-ordination committee for smart textiles	Manufacturing	Manufacturing – Consumer
WEE/40 Health and safety in welding	Manufacturing	Manufacturing – General

### **Significant impact on UK business / industry**

ACE/1 International and European Aerospace Policy and Processes	Manufacturing	Aerospace
EH/3/2 Physical chemical and biochemical methods	Sustainability	Environment
EH/3/6 Sampling (of technical committee EH/3 - Water quality)	Sustainability	Environment
EH/3/8 Radioactivity measurements methods	Sustainability	Environment
GW/2 Secure storage of cash, valuables and data media	Governance & Resilience	Security
ISE/1 Iron and steel standards co-ordinating committee	Manufacturing	Metals
ISE/100 Steel, General Issues	Manufacturing	Metals
ISE/104 Concrete Reinforcing and Pre-Stressing Steels	Manufacturing	Metals
IST/47/-/3 eBusiness	Governance & Resilience	Digital improvement
MHE/12/1 Lifting Platforms - Mobile elevating work platforms	Manufacturing	Built environment
MHE/3/13 Lifting equipment for performance, broadcast and similar applications	Built Environment	OHS
MS/2 Project, programme and portfolio management	Governance & Resilience	Business improvement
MS/2/-/3 Value management	Governance & Resilience	Business improvement

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
MTE/1 Machine tools	Manufacturing	Other
RM/1/2 Travel Risk Management	Governance & Resilience	Governance

### Sustainability

B/558 Sustainability of construction works	Built Environment	Built environment
BDY/1 Biodiversity management	Sustainability	Environment
CB/401 Retrofitting Energy Efficiency Measures	Built Environment	Energy
CPI/30 Measurement of fluid flow in closed conduits	Sustainability	Built environment
CPI/30/2 Differential pressure methods	Sustainability	Built environment
CPI/30/7 Volume flow-rate methods	Sustainability	Built environment
EH/1/7 Underwater acoustics	Sustainability	Environment
EH/2 Air quality	Sustainability	Environment
EH/2/2 Work place atmospheres	Sustainability	Environment
EH/2/3 Ambient atmospheres	Sustainability	Environment
EH/2/5 Emissions to internal environments	Sustainability	Environment
EH/3/-/5 Algae and Algae Products	Sustainability	Environment
GEL/111 Electrotechnical environment committee	Sustainability	Environment
GSE/25 Gas Meters	Sustainability	Energy
PKW/0 Packaging	Manufacturing	Materials
PKW/0/-/1 Packaging - Biodegradability	Manufacturing	Materials
PKW/0/5 Packaging and Environment	Manufacturing	Materials
PRI/89 Plastics - Environmental Aspects	Sustainability	Environment
PTI/17 Solid biofuels	Sustainability	Energy
PTI/2 Liquid Fuels	Sustainability	Oil and gas
PTI/20 Sustainability of bioenergy	Sustainability	Energy
RHE/25 Solar Heating	Sustainability	Energy
RM/1 Risk management	Governance & Resilience	Governance
SCP/1 Sustainable Performance, Consumption & Production	Sustainability	CSR
SCP/1/1 Managing for sustainable development	Sustainability	CSR
SCP/1/3 Sustainable processes for wood and wood-based products	Sustainability	CSR
SCP/1/4 Sustainable Resource Management	Sustainability	CSR
SCP/1/5 Energy-related products - Material Efficiency Aspects for Ecodesign	Sustainability	Environment
SCP/1/8 Social Value	Sustainability	CSR
SEM/1 Energy Management	Sustainability	Energy
SES/1 Environmental management	Sustainability	Environment

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
SES/1/2 Environmental Management - Environmental performance evaluation, environmental auditing, reporting, environmental labelling and related environmental investigations	Sustainability	Environment
SES/1/5 Environmental Management - Life cycle tools and techniques	Sustainability	Environment
SES/1/7 Greenhouse gas management and related activities	Sustainability	Environment
SSM/1/7 City Resilience	Governance & Resilience	Governance
TPR/1/7 Technical Product Realization - BS 8887 Design for MADE	Manufacturing	Manufacturing – General
<b>Underpinning or supporting regulation and legislation</b>		
ACE/20/4 UAS - Traffic Management	Manufacturing	Aerospace
AW/453 Food supplements compatible with doping prevention	Sustainability	Food
B/502 Aggregates	Built Environment	Built environment
B/513/1 Earth moving machinery (International)	Built Environment	Built environment
B/513/3 Machines for the production of cement, lime and gypsum - Safety	Governance & Resilience	Built environment
B/517 Concrete	Built Environment	Built environment
B/518 Structural timber	Built Environment	Built environment
B/519 Masonry and associated testing	Built Environment	Built environment
B/525/5 Structural use of timber	Built Environment	Built environment
B/525/8 Structures in seismic regions	Built Environment	Built environment
B/526/-/1 Earthworks	Built Environment	Built environment
CAR/1/2 Crisis Management: Development of ISO 22361	Governance & Resilience	Governance
CPI/113 Hydrometry	Sustainability	Environment
CPI/113/1 Hydrometric methods and instrumentation	Sustainability	Environment
CPI/113/2 Flow measurement structures	Sustainability	Environment
CPI/113/3 Precipitation	Sustainability	Environment
EH/3 Water quality	Sustainability	Environment
EH/3/4 Microbiological methods	Sustainability	Environment
EH/3/5 Biological Methods	Sustainability	Environment
EH/4 Soil quality	Sustainability	Environment
FSH/0 Fire & Built Environment Sector Policy and Strategy Committee	Built Environment	Fire
G/1 Governance	Governance & Resilience	Governance
G/1/3 Modern Slavery	Sustainability	Governance

<b>Committee Title</b>	<b>Sector</b>	<b>Subject</b>
GEL/210 EMC - Policy committee	Manufacturing	Energy
GW/1 Electronic security systems and products	Governance & Resilience	Security
GW/1/5 Transmission equipment and networks	Governance & Resilience	Security
IDT/2 Information and documentation	Sustainability	Other
IST/33 IT - Information security, cybersecurity and privacy protection	Governance & Resilience	Digital improvement
IST/47/-/2 E-Invoicing	Governance & Resilience	Digital improvement
L/1 Electrotechnical sector - Policy and strategy committee	Manufacturing	Energy
MHE/3 Cranes and derricks	Built Environment	Built environment
MHE/3/5 Mobile cranes	Built Environment	Built environment
PEL/32 Fuses	Manufacturing	Manufacturing – Electrical
PH/8 Graphical symbols	Governance & Resilience	Other
PVE/1 Pressure Vessels	Manufacturing	Energy
SSM/1 Societal security management	Governance & Resilience	Governance

## ANNEX 2: BSI Projects delivered or started in receipt of funding from other public-sector bodies beyond the funding agreement



56 projects and programmes BSI led on during 2020-21 that were funded by public-sector bodies (standards and consultancy services)

\* Projects and programmes funded outside the BEIS core grant.

HMG client	Project name	Expected Project End Date
BEIS / University of Cambridge	BIM Level 2	2022 <sup>26</sup>
BEIS	Hydrogen installation PAS (Phase 1)	19/12/2021
BEIS	Retrofitting dwellings for improved energy efficiency - Specification and guidance (2 projects): PAS 2030:2019+A1:2021 PAS 2035:2019+A1:2021	30/07/2021 1/11/2021
BEIS	PAS 2038 Non-Domestic Retrofit of Energy Efficiency Measures	30/04/2021
BEIS	PAS 4444+A1: Hydrogen-fired gas applications - guide (amendment)	17/02/2021
BEIS	Sustainable Finance Programme	31/03/2022
CDBB	BIM Interoperability Expert Group	31/03/2021
CDBB	Digital Twin (Phase 2 & 3)	26/12/2020
CDBB	Digital Twin (Phase 4): Flex and whitepaper	23/10/2021
CPNI	PAS 29000:2021 Carbon Management in Infrastructure	03/10/2021
CPNI	PAS 97:2021 Mail screening and security. Specification	31/03/2021
CPNI	Synthetic Biology Pilot project	31/03/2021
CPNI	CPNI Standards Watch 2019 to 2020	12/06/2020

<sup>26</sup> Planned end date not yet calculated or project has a flexible end date



HMG client	Project name	Expected Project End Date
CPNI	CPNI Standards Watch 2020 to 2021	26/04/2021
DFID	Commonwealth Standards Network	31/03/2020
DFID	Commonwealth Standards Network Phase 2	31/03/2021
DfT	Future of Mobility (1b)	30/04/2020
FCDO	China Business Environment Project – Standards Strand	31/10/2021
FCDO	Sustainable Cities for Future Prosperity (SCFP)	31/03/2023
FCDO	Reduction of Technical Barriers to Trade in Bolivia – Scoping Study (Phase 1 & 2)	31/05/2020
FCDO	Ease of Doing Business - India	31/03/2022
FCDO	IP FCO BIM	31/03/2021
FCDO	Provision of QI Support	2021
FCDO	Provision of SME Training	2021
FCDO	Carbon Neutral Workshop	2021
FCDO	Ease of Doing Business Output 3: PPE	30/06/2021
Innovate UK (BEIS)	CAV Vocab 3.0	--- <sup>27</sup>
Innovate UK (BEIS)	Connected and Autonomous Vehicles Standards Programme	31/08/2021
Innovate UK (BEIS)	Faraday Battery Challenge	31/05/2021
Innovate UK (BEIS)	IUK Healthcare data project - Stage 1	31/01/2022

<sup>27</sup> Planned end date not yet calculated or project has a flexible end date

HMG client	Project name	Expected Project End Date
Innovate UK (BEIS)	IUK Toolkit	28/01/2022
Innovate UK (BEIS)	MMS ISCF Programme (Phase 1 & 2)	19/07/2021 <sup>28</sup>
Innovate UK (BEIS)	PAS 7060: Electric vehicles - Safe and environmentally conscious design and use of batteries	29/01/2021
Innovate UK (BEIS)	PAS 7061:2020 Sustainable batteries for electrical vehicle	14/01/2021
Innovate UK (BEIS)	PAS 7062: Electrode and cell	31/01/2021
Innovate UK (BEIS)	PSS Standards Roadmap - Smart Factories	25/01/2022
Innovate UK (BEIS)	PAS 440 Responsible Innovation	30/04/2020
Marine Scotland (Scotland Gov.)	PAS 510: Plastic Pellet	13/08/2021
MHCLG	MHCLG Agile 2020	28/05/2021
MHCLG	MHCLG BECS Strategy Group	31/03/2021
MHCLG	MHCLG Competence Programme	29/04/2022
MHCLG	PAS 232: Privately managed parking	29/01/2021
MHCLG	PAS 8671: Framework for competence of Principal Designer	17/04/2022
MHCLG	PAS 8672: Framework for competence of Principal Contractor	17/04/2022
MHCLG	PAS 8673: Framework for competence of Building Safety Manager	21/03/2022
MHCLG	PAS 9980: Fire risk appraisal and assessment of external wall construction and cladding of existing blocks of flats – Code of practice	30/06/2021
NHS Digital	SAFR - Safety Assurance Framework for Machine Learning in Healthcare	30/04/2021

<sup>28</sup> Project has been archived.

HMG client	Project name	Expected Project End Date
SDS	Review of FSA apprenticeship standards process	31/07/2020
Suffolk County Council	ADEPT Live Labs	30/09/2021
TFL	PAS 6463: Design for Minds	30/12/2021

### Organizational acronyms:

BEIS – Department for Business, Energy and Industrial Strategy

CDBB – Centre for Digital Built Britain

CPNI – Centre for the Protection of National Infrastructure

DfID – Department for International Development<sup>29</sup>

DfT – Department for Transport

FCDO – Foreign, Commonwealth and Development Office

MHCLG – Ministry of Housing, Communities and Local Government

NHS – National Health Service

SDS – Skills Development Scotland

TFL – Transport for London

<sup>29</sup> DfID has closed since September 2020. All projects thereafter would have been issued by the Foreign, Commonwealth & Development Office

## ANNEX 3: List of Departments and Executive Agencies benefiting from HMG membership of BSI using discounted member rate for standards products

### Purchases by department

High-level HMG Departments	Total member rate of standards purchased	
Cabinet Office	£	6,188
Department for Business, Energy and Industrial Strategy	£	296,236
Department for Digital, Culture, Media and Sport	£	604
Department for Education	£	6,456
Department for Environment, Food and Rural Affairs	£	34,826
Department for the Economy (NI)	£	2,044
Department for Transport	£	44,124
Department for Work and Pensions	£	1,065,750
Department of Agriculture, Environment and Rural Affairs (NI)	£	1,207
Department of Education (NI)	£	67
Department of Finance	£	45,155
Department of Health and Social Care	£	24,577
Department of Justice (NI)	£	2,676
Foreign, Commonwealth & Development Office	£	40,016
HM Revenue and Customs	£	17,181
Houses Of Parliament	£	6,099
Jersey Government	£	604
Ministry of Defence (MOD)	£	687,016
Ministry of Housing, Communities and Local Government	£	117,419
Ministry of Justice	£	25,045
Scottish Government	£	38,040
The Home Office	£	14,790
Welsh Government	£	£7,695
<b>TOTAL</b>	<b>£</b>	<b>2,469,932</b>

## Eligible Agencies using HMG membership of BSI, 2020-21

### Cabinet Office

- Government Comms Planning
- Government Digital Service
- Government Property Agency
- Office for National Statistics

### Department for Business, Energy and Industrial Strategy

- H M Land Registry
- Innovate UK
- Met Office
- Ordnance Survey
- Trading Standards
- UK Intellectual Property Office
- UK Space Agency

### Department for Digital, Culture, Media and Sport

- The National Archives UK

### Department for Environment, Food and Rural Affairs

- Animal and Plant Health Agency
- CEFAS
- Drinking Water Inspectorate
- Environment Agency

### Department for Transport

- British Transport Police Authority
- Driver and Vehicles Standards Agency
- Highways England
- Maritime & Coast Guard Agency
- Office of Rail and Road
- Rail Accident Investigation Branch
- Vehicle Certification Agency

### Department for Work and Pensions

- Health & Safety Executive
- Office for Nuclear Regulation

### Department of Agriculture, Environment and Rural Affairs (NI)

- Northern Ireland Environment Agency

### Department of Health and Social Care

- Community Health Partnership
- Medicines and Healthcare Products Regulatory Agency
- Public Health England

### Foreign, Commonwealth & Development Office

- Government Communications Headquarters
- HM Government Communications Centre

### Houses of Parliament

- House of Commons Library
- Parliamentary Estates

### HM Revenue & Customs

- Valuation Office Agency

### Ministry of Defence

- Defence Infrastructure Organization
- DSTL
- No 1 Aeronautical Information Documents Unit
- Technical Info Centre of Royal Engineers
- UK Hydrographic Office

### Ministry of Housing, Communities and Local Government

- The Planning Inspectorate

### Ministry of Justice

- Gov Facility Services Ltd
- HM Prison & Probation Service
- Ministry of Justice Estates Directorate
- National Offender Management Service
- Newport SSCL

### Scottish Government

- Forest and Land Scotland
- Historic Environment Scotland
- National Records of Scotland
- NHS Education for Scotland
- Registers of Scotland
- Scottish Prison Service
- Transport Scotland

### The Home Office

- National Crime Agency

### Welsh Government

- Welsh Assembly Library