

**THE UK GOVERNMENT PUBLIC POLICY INTEREST
IN STANDARDISATION 2009**

SUMMARY

1. Standardisation is a key factor in support of a number of government policies, including competitiveness, innovation, science and technology, reduction of trade barriers, fair trading and protection of consumer interests, the environment and sustainability, public procurement, health and safety and regulatory compliance. Standardisation can also promote better regulation. Its importance is growing with the globalisation of commerce, the convergence of technologies and a growing knowledge economy.
2. However, standards can be used to create trade barriers as well as to remove them. Government seeks to prevent the use of standards to create trade barriers, but rather to promote the very beneficial effects of standardisation.
3. Public policy is applied in order to compensate for market imperfections. Public policy must also seek to realise some of the potential socio-economic benefits of standardisation, including the promotion of the small and medium sized business sector and of worker, consumer and environmental interests.
4. The UK is expected to maintain a standards infrastructure consistent with European standards policy (as set out, inter alia, in EC Council resolution of October 1999 and October 2004 as well as the Council Conclusions of 2008) and a failure to do so would be interpreted negatively by European partners. Certain standards obligations are now enshrined in EC law, e.g. Directive 98/34.
5. Standards are increasingly important in the international trade arena, where influence is most effective if the efforts of this country's government and standards body reinforce each other.
6. Product and service standards enable competition to focus on efficiency in providing the standardised aspects, as well as other additional features of products. This promotes a rise in the general level of product quality, performance and safety. Similarly, management and systems standards help to spread best practice and to raise general levels of performance. UK industry, helped by the National Standards Body (NSB), has been at the forefront of such developments.
7. Globalisation of trade and convergence of technologies require products to be considered less as stand-alone items and more as components in 'product networks', making interoperability standards an essential feature of a widening range of products.
8. By identifying standardised criteria by which service providers may be assessed, and by identifying best practice, consumers and regulators are enabled to encourage and ensure acceptable levels of service provision. The public interest in many areas of such provision is thereby facilitated and focusable.
9. The inter-relationship between factors which protect the rights of innovators (such as patents) and those which propagate the innovations (such as standards) in a given product life cycle is therefore complex, but both types of factor are necessary for a successful innovation policy.
10. Reducing barriers to trade involves removing mandatory specifications which are not justified by public policy (which is generally the protection of health and safety); and harmonising those which are so justified; and moving from national towards regional and international standards where practicable.

11. European policy on technical barriers (and the protection of health, safety and the environment) is inextricably bound up with standardisation. In keeping with the overall government policy of constructive participation in Europe, it is expected by our partners that we will maintain a UK infrastructure consistent with the policy we are helping to mould. An effective NSB, and its constructive relationship with the UK government, are key elements of that infrastructure.
12. Pursuit of UK policy requires close co-operation between Government and the NSB so that negotiating positions in the standards and intergovernmental fora reinforce each other.
13. Individual participants in a market do not necessarily have a strong incentive to invest in standards in their field, which would be beneficial for the market as a whole, unless they are satisfied that other players will do likewise. Public policy seeks to address this market imperfection.
14. A strong and effective standards body can help increase the relative attraction of the public standards route. Public policy seeks to achieve this by means of the Charter and the Memorandum of Understanding.
15. DIUS and the UK NSB, the British Standards Institution (BSI), share an understanding of these public policy interests, as well as how the constitutional structure provides a framework for pursuing them. They recognise that whilst the process of standards development facilitated by BSI in the UK is a voluntary activity, there is a public interest in standardisation per se.

INTRODUCTION

This paper sets out the UK Government's public policy interest in standardisation in the UK.

The Role of the Department for Innovation, Universities and Skills (DIUS) in standardisation

1. DIUS leads on standardisation policy for the UK Government and represents the Government in European and international policy debates related to general standardisation policy. However, other government departments may be involved in policy specific discussions which have a bearing on standardisation.
2. DIUS also oversees and manages the cross-Whitehall officials group on standardisation. The group seeks to: provide cross-government expertise to support and develop standardisation policies that support effective government and economic development; maximise the effectiveness of European and international standardisation and UK involvement in development of international policies and practice; ensure effective operation of the UK standardisation infrastructure, especially ensuring that Government support, financial or otherwise, maximises public benefit; and advocate the effective and appropriate use of standardisation across Government and promote standardisation generally.
3. DIUS has a strong relationship with the Department for Business Enterprise and Regulatory Reform (BERR) which leads on many policy areas which are impacted by standardisation policy, e.g. trade, New Approach, competitiveness, and the business, consumer and employer/employee agenda.

The Role of BSI British Standards in supporting the Government's public interest in standardisation in the UK

4. BSI is an independent body incorporated by Royal Charter which cannot distribute its profits but must instead apply them towards its objects. The terms of its Royal Charter set the development and promulgation of standards as its primary object. A Memorandum of Understanding with Government explains more fully what BSI is expected to do in fulfilment of its Charter obligations in respect of the key public policy dimension to standardisation. This Memorandum recognises that, in addition to carrying out its primary role as the UK National Standards Body (NSB), BSI undertakes certain other activities permitted by the Royal Charter.
5. BSI, with Government endorsement, works separately and in cooperation with Government to meet the public policy interest in standardisation, whilst also seeking to run an efficient commercial enterprise. BSI is designated through Directive 98/34 as the UK's NSB and fulfils, on behalf of Government, the obligations set out under Article 4 of that Directive.

What do we mean by Standardisation

6. A standard is a technical document that is used as a rule, guideline, or definition. It is a consensus-built, repeatable way of doing something, developed by bringing together all interested parties such as manufacturers, consumers, and regulators of a particular material, product, process, or service. Standardisation is the process of achieving this. This extends to conformity assessment – the means of assessing against standards - and accreditation – the validation of the competence of assessing organisations.

7. There are broadly three components to the wider standardisation infrastructure:
- Standardisation includes both **formal standards** (i.e. standards developed with full consensus by recognised bodies such as BSI, CEN, CENELEC, ISO and IEC) and **informal standards** (i.e. standards developed by or at the instigation of a limited group of stakeholders such as trade associations or consortia). There are many types of standards-makers, some within public sector such as Food Standards Agency, Cabinet Office and in the private sector such as the British Retail Consortium and Professional Institutions. DIUS has an interest in all these, but may not necessarily become involved directly with the policy objectives. It recognises that these are constituents of the wider standardisation infrastructure.
 - Conformity Assessment against recognised standards. This may take the form of product testing and certification or management systems certification of processes and services: both types of organisation are referred to as certification bodies or CBs or conformity assessment bodies ('CABs').
 - Accreditation of conformity assessment bodies. Accreditation is the verification of the competence of conformity assessment bodies. In the UK, this activity is undertaken by the United Kingdom Accreditation Service, as the National Accreditation Body (NAB).

Standardisation in the United Kingdom

8. Standardisation is a key factor in support of a number of Government policies, including competitiveness, innovation, science and technology, reduction of barriers to trade, fair trading and protection of consumer interests, the environment and sustainability, public procurement, health and safety and regulatory compliance. Standardisation can also promote better regulation. Its importance is growing with the globalisation of commerce, the convergence of technologies and a growing knowledge economy.
9. For these reasons, there is a strong Government interest in promoting effective standardisation in the UK. There are also potential risks to be avoided. Slow, rigid, out of date or inappropriate standards can hinder innovation rather than boost it. Standards can be used to create barriers to trade as well as to remove them. It is as important for Government to work to avoid such risks and any detrimental impact as to promote the very beneficial effects of standardisation.
10. For the purposes of this paper and Government public interest policy, standardisation includes both the development of the standard, a process which involves stakeholders to whom the standard is relevant and the promulgation of standards which aims to maximise their usage and therefore the value to be gained from their application.
11. Market forces are necessary for the development of relevant, efficient standards. But market forces alone may not enable the full societal benefits of standardisation to be realised. In particular, standards users may choose to leave the development effort and costs in standards making to others. Additionally, left to their own devices, innovative companies may have an incentive to avoid standardisation, to promote their own specifications instead and thereby restrict competition. Public policy may be required in order to compensate for these market imperfections. Public policy may also apply if some of the potential socio-economic benefits of standardisation, including the promotion of the small and medium sized business sector and of employee, consumer and environmental interests, are to be realised.

12. Standards now form an integral part of European Community policies, particularly the completion of the Single Market using Articles 94 and 95 of the EC Treaty. If the Government is to continue pursuing a policy of constructive participation in Europe it cannot avoid involvement in European standards policy as set out, amongst other things, in EC Council Resolution of October 1999 and then 2004, as well as the Council Conclusion on the Standardisation and Innovation of October 2008. The UK Government is expected to maintain a standards infrastructure consistent with European standards policy and a failure to do so would be interpreted negatively by European partners. Certain obligations are now enshrined in EC law, e.g. Directive 98/34.
13. Standards are also important in the international trade and investment arena, where UK influence is most effective if the efforts of Government and the UK NSB reinforce each other, particularly in relation to the World Trade Organisation's Technical Barriers to Trade Agreement. It is, therefore, beneficial to HMG to promote the strength and influence of the UK NSB.

Formal and informal standards and standards systems

14. National Standards Bodies (NSBs), European Standards Organisations (ESOs), the International Organization for Standardization (ISO) and other similar organisations form part of the formal standardisation infrastructure. The formal system is considered to involve the widest group of stakeholders in the development of standards and to have global visibility and transparency. Consequently formal standards are considered more likely to gain global acceptance and recognition.
15. Informal standards bodies such as trade groups or sector specific business groups also form part of the overall standardisation infrastructure. The benefit often attributed to this part of the system is its responsiveness to market need and therefore speed of delivering standards to market.
16. The Government encourages the informal standards organisations to be involved in the development, implementation and use of informal standards in support of innovation and competitiveness, etc. However, Government's primary policy objective is to encourage and facilitate where possible the two models (formal and informal standards organisations) to learn from and collaborate with each other. The formal part of the system is to be encouraged to respond to market needs more quickly and to develop formal standards in shorter timeframes, as well to develop mechanisms to enable informal standards to be adapted and adopted by the formal standards system, where appropriate, so that they can be used more widely.

International standardisation

17. The standardisation infrastructure is a global one and as standards are primarily market-driven, purchaser, manufacturer and consumer choice is not limited to any specific market. For European business to be successful in global markets, the EU should develop standards that are fully justified by enhancing European competitiveness and correcting market failure, and based on evidence. The processes for developing standards need to be fast and non-bureaucratic, whilst ensuring that stakeholders have an appropriate opportunity to participate. It is also important that the EU looks at the possibility of international standards, where appropriate, being adopted quickly and tailored to EU frameworks, in order to minimise barriers to trade and investment, and ensure that EU businesses can compete successfully in global markets. The EU needs to continue work internationally to find the common ground on

standards, e.g. through the Vienna and Dresden treaties. Mutual recognition provides an important route forward here.

18. The Government will work with the UK NSB to establish opportunities for developing standards rapidly, and to positively influence international standards to try to give UK and European businesses a “first mover” advantage. At the same time, the UK, and the EU, need to be able to reflect international standards in their own policy solutions and to take best practice of foreign regulators into account. This will make the UK model attractive and responsive to both UK and global business.
19. Tactically this may mean working differently with different partners. The approach taken for fast growing economies such as Brazil, Russia, India, and China (BRIC countries) and the Association of Southeast Asian Nations (ASEAN countries) will be different to that with the established economies of the US and Japan. There are already a number of mechanisms in place to address this at the national and European level. This approach needs to be continuously strengthened and tested with standardisation strategies, noting this area as a priority to avoid the risk of divergent standards or rules being developed, and consequently becoming a barrier to deploying innovation, competitiveness and trade. The promotion of UK and European standards continues to play an important role in this objective.
20. Government policy will continuously assess the robustness of the national infrastructure. It will constructively contribute to the debate on the European infrastructure to progress it so that it keeps pace with globalisation.

KEY ISSUES IN STANDARDISATION FOR UK GOVERNMENT

Competitiveness and Innovation

21. Standards can improve competitiveness by reducing costs both of manufacturing and service provision. They function by reducing uncertainty: e.g. a manufacturer or service provider does not need to reinvent the specifications or performance criteria incorporated in the standard, and can concentrate resources elsewhere. Both buyers and sellers in commercial transactions benefit from the shared information conveyed by a standard. This transfer of knowledge can be useful to innovators who can then make improvements which can help them enter and create markets. For example access to standards for *in-vitro* testing allows practitioners to capture essential elements of state of the art techniques, which in turn are valuable for improving the quality of diagnostics and on this basis offering new services. Businesses focus on efficiency in providing the standardised aspects, as well as other additional features of products and services, with the aspects incorporated in the standard taken as read. This promotes a rise in the general level of product or service quality, performance and safety, and encourages competitive suppliers to differentiate their products by additional desirable features.
22. Similarly, management systems standards help to spread best practice and to raise general levels of performance, reduce uncertainties and to automate processes and systems as the requirements laid down in the standard become the expected norm. For example standards for the exchange of industrial design have allowed new and much closer cooperation between car integrators and manufacturers of parts. UK business helped by the UK NSB has been at the forefront of the development and promotion of the most widely used management systems standards in the world today.

23. Standards enable the diffusion of innovation into the market place and the innovative development of products and services by setting out ground rules, common terminology development methods and measurement techniques, such as biometrics.
24. Standards give customers and consumers confidence in their purchase. They can also provide common platforms for exploitation; for example standards that facilitate interoperability can stimulate and make it viable to explore and exploit complementary products, processes and systems.
25. Globalisation of trade and convergence of technologies require products to be considered less as stand alone items and more as components in 'product or service networks' or as part of the whole supply chain, making interoperability an essential feature of a widening range of products and services in, amongst others, the communication and information industries.
26. The services sector today makes up c.70% of the UK and European economy, and at the same time globalisation is driving the need for standards more widely in this sector because of a high wage economy, an aging population and increasing pressure on the UK skills base. Service standards identify the criteria by which service providers may be assessed, and by identifying best practice, consumers and regulators are enabled to encourage and ensure acceptable levels of service provision. The public interest in many areas of such provision is thereby facilitated and focusable. For instance, the Services Directive which provides the overarching framework to open up the European Single market for services will be supported by standards.
27. Standards can help to propagate innovations, and hence to enable economic benefit to be derived from them. They do so by spreading acceptability of an innovation in the market, and by enabling other suppliers to incorporate the innovation in their own products. The former effect benefits innovators directly whereas the latter can only do so indirectly (purchasers benefit from both effects). The inter-relationship between factors which protect the rights of innovators (such as patents) and those which propagate the innovations themselves (such as standards) in a given product life cycle is therefore complex, but both types of factor must be recognised in a successful innovation policy.

Reduction of Barriers to Trade

28. Tariffs have been largely eliminated from world trade (and totally from trade within the European Economic Area (EEA)), exposing the harmful effects of non-tariff trade barriers. These barriers include technical barriers caused by differing specifications for products in different markets. The Services Directive aims to do the same for services in the EEA as to what specific product Directives - eg Construction Products Directive - have delivered. The barriers may be non-regulatory (where voluntary standards differ from one country or region to another); regulatory (where technical rules specified in law for the protection of health, safety or the environment or for reasons of national policy impose differing requirements); or a mixture between the two (where national or regional standards confer a presumption of conformity with technical regulations). Reducing barriers involves removing mandatory specifications which are not justified by public policy; harmonising those which are so justified (generally, the protection of health and safety); and moving from national towards regional and international standards.
29. In the European Single Market the interrelationship between the standardisation and regulatory aspects of work on technical barriers is extremely close. "New Approach" Directives made under Article 95 specify health and safety requirements (and

sometimes other requirements) in broad terms. Standards prepared by the CEN or CENELEC against mandates from the European Commission fill in the technical detail. Products complying with the mandated standards are 'presumed to comply' with the mandatory requirements of the Directive. Thus, although the application of the standards remains voluntary, European policy on technical barriers (and the protection of health, safety and the environment) is inextricably bound up with standardisation. The UK makes a major contribution to EU work in this area through CEN/CENELEC, in keeping with the overall Government policy of constructive participation in Europe. It is expected by HMG's EU partners that it will continue to do so, and that we will maintain a UK infrastructure consistent with the policy we are helping to mould. The effectiveness of the UK NSB, and its constructive relationship with the UK Government, are vital components of that infrastructure.

30. UK business views the adoption of international standards by emerging markets such as China, Brazil and India as critical. The interoperability of standards is vital in enabling global transactions. Technological convergence means that different products by different suppliers often function in networks or need to be able to interface with each other.
31. At the international level, barriers to trade are tackled by standards bodies through the International Organization for Standardization (ISO) and the electrotechnical equivalent (IEC) and by governments through the Technical Barriers to Trade Committee of the World Trade Organisation. The Trade Committee of the OECD also has a developing interest in standardisation. There are also a number of other organisations involved, which may be intergovernmental (for example OIML), non-governmental (the Transatlantic Business Dialogue, for example), or other standard bodies (including regional groupings). Pursuit of UK public policy requires close co-operation between Government and BSI, the NSB, so that negotiating positions in the standards and intergovernmental fora reinforce each other.

Fair Trading and Consumer Interests

32. Standards convey information to consumers, and therefore can help them to purchase effectively. Standards concerned with safety or environmental performance also provide a level of assurance to consumers which may otherwise be very difficult for them to obtain. By providing an independent and testable specification for key features of a product or service, standards offer objective evidence which provides fundamental assistance for settling disputes, and so help to reduce the costs of regulating the market.

Environment and sustainability

33. Standards are increasingly considered as a contributor to meeting UK Government environmental and sustainability targets. This may be through design and construction of low carbon buildings: building regulations require domestic and commercial building to use materials which, for example, reduce energy costs by having better insulation or to support environmental legislation using the New Approach principles, to create energy efficient products and services. The public sector is increasingly required to procure sustainably and this should be achieved by incorporating appropriate standards or equivalent in public sector contracts.

Procurement

34. 'Innovation Nation', the Government's White Paper on Innovation launched in March 2008 - sets out the leadership that the public sector needs to take to drive demand led

innovation through procurement. The UK public sector procures c. £150 billion worth of goods and services annually. Public sector procurers across all Government Departments and Agencies should stipulate standards in their contracts to ensure that there is a certain level of rigour, that targets are met and that procurers are confident with the end result - this is beneficial for both suppliers and purchasers.

Participation in standards-making process

35. The business community has traditionally been the main driver for and participant in standardisation, and the role of businesses in standardisation continues to be important. However, this can limit or restrict the application of standards in the economy. Small and Medium Enterprises (SMEs), consumers, regulators, Governmental and non-governmental organisations are all encouraged to participate in the development and use of standards. Standards can be particularly helpful to SMEs, in two ways. First, the existence of a standard helps to lower entry barriers to a market. Second, the process of standardisation allows the interests of SMEs to be taken into consideration and reflected in the resulting standard.
36. Research and Development is critical to driving innovation and the continual involvement of researchers in standardisation will further help with effective deployment of innovations.

Better regulation

37. Standards are not regulations but can be used to avoid the necessity for legislation or regulation. Regulations should set goals and standards enable those goals to be met. The application of better regulation to standardisation is to ensure that the status of the standard is not abused. The underlying principle of the European Community's New Approach is to make more use of standards so that legislation can be more goal-based, thus contributing to better regulation policy. In effect, responsibility for implementing regulation is shared with business, since business through the standards bodies is entrusted with drawing up the standards which give presumption of conformity. Furthermore, there is no need to amend legislation in the light of technical progress, provided that the standard is maintained. This approach should be extended so that standards may be used in place of legislative solutions as a means of demonstrating compliance. However, there is a balance to be achieved here. The principles of better regulation call for a robust impact assessment of risk and proportionality when considering a possible intervention to correct market failure.

Issues to guard against in standardisation

38. Standards can reduce some aspects of "variety"; that is the unavoidable consequence of the certainty and consistency which are the basis for the beneficial effects of standardisation. Premature or over-prescriptive standardisation in a rapidly developing technology or product sector has the potential risk of shutting out alternative lines of development and thereby to discourage innovation. Similarly, Government backing for a standard to the exclusion of non-standard approaches can inhibit technological progress.
39. Government can limit these risks to some extent, for example by avoiding the direct incorporation of standards into regulation, and standards bodies can also limit these risks, by specifying essential requirements in terms of performance rather than design. But the main safeguard against these potential risks is to leave market forces to influence standardisation, and to keep to the minimum the role of Government in the preparation of specific standards. In practice, the UK NSB does not itself write

standards, but facilitates the preparation of standards by committees of those interested in the outcome. Members of these committees are drawn primarily from organisations interested in using the standard for their products and services; those who design and specify the products and services themselves and consultants who provide advice and services to such organisations and the users of their products and services. A key role of the NSB is to facilitate the development of 'consensus' standards, by enabling representatives of as wide a range as possible of other interests (users, SMEs, consumers, lobby groups and enforcement authorities) to participate in their preparation.

Standards help to avoid anti-competitive behaviour

40. A company may seek to impose its own private 'standards' on the market, either by itself through its supply chain or through industry groupings, if it believes it is in a position to do so. If successful, this has the potential to lead to a damaging concentration of economic power and, ultimately, may necessitate the competition authorities or the courts to intervene to prevent abuse of a dominant position.
41. A strong and effective standards body can help to make anti-competitive behaviour less likely, by increasing the relative attraction of the formal standards route. The UK NSB fulfils this role, by providing an efficient and transparent facilitation service to suppliers / producers.
42. DIUS and BSI share an understanding of these public policy interests, and how the standardisation system in the UK provides a framework for pursuing them.

DIUS, May 2009