

# NSSF Implementation Annex

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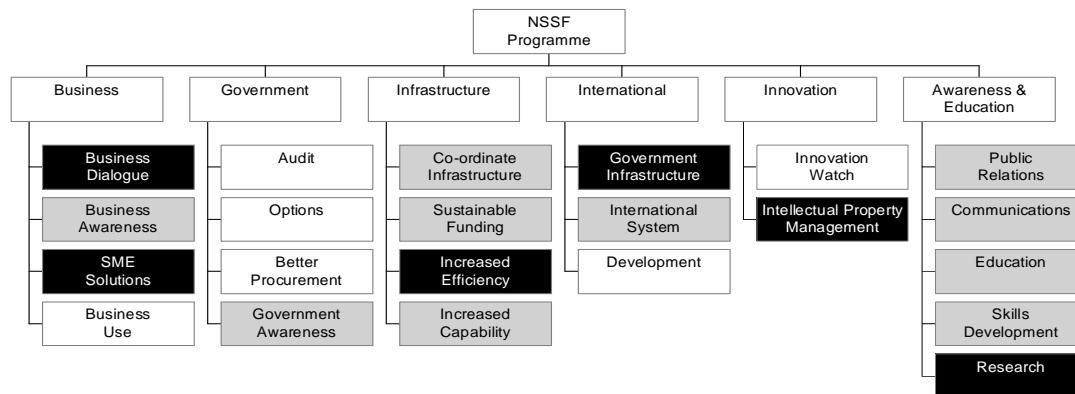
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# 1. Implementation Overview

The implementation of the NSSF will embrace a number of specific projects, which fit within the implementation structure described in the NSSF document. They will involve partners within business, government and society as well as those involved in the standardization process. Working together, these partners will define the specific tasks and resources applied to each project. Figure 1 depicts the implementation structure as currently viewed. It can be adapted in response to stakeholders' views and experience with initial projects.

Figure 1: Initial Implementation Structure



Project areas within this structure fall into three categories:

- Initial Phase-** Areas in which specific initial implementation activities will be undertaken with initial deliverables by September 2003.
- Second Phase-** Areas in which projects will build on existing activities but will require resource allocation, definition and co-ordination with implementation partners. While work in these will begin in April 2003, specific deliverables are expected in 2004.
- Third Phase-** Areas that are comprised of longer term projects, which have dependencies on other NSSF activities and external factors.

This annex includes a short description of the project areas as well as a one-page summary for each of the 6 initial activities.

## 2. Initial Implementation Activities – 2003

In the build-up to the NSSF launch in the autumn, a set of specific activities is being initiated under the aegis of the NSSF. These activities have been defined in consultation with implementation partners. Table 1 describes their relationship with the NSSF Implementation structure:

*Table 1: Initial Implementation Activities*

Key Area	Project Area	Initial Implementation Activity
Awareness & Education	Research	Measure the economic impact of standards
Business	Business Dialogue	Business forum
Business	SME Solutions	Understand and measure standardization issues specific to SMEs
Infrastructure	Efficiency & Capability	Improve the efficiency and relevance of the National Standards Body
Innovation	Intellectual Property Management	Guidance on intellectual property management and standards
International	Government Infrastructure	Assist UK posts abroad with standards-related trade promotion.

## **Awareness & Education- Research**

A programme to develop two underpinning economic models for standardization at macro and micro (business use) level. This research will facilitate the application of standards in Business and in Government and will inform the management of the standardization infrastructure. Research activities will be managed by the NSB, DTI and partners. 'Research' is closely linked with 'Infrastructure Co-ordination', 'Sustainable Funding', 'Business Awareness' and 'Government Awareness'.

**Initial Activity:** Measuring the economic impact of standards

**Leader:** DTI

**Partners:** BSI

**Objective:** Provide the economic arguments and evidence base for the role of standards in businesses and in the economy more generally, including the innovation system. This evidence will underpin the need for a NSSF and will suggest strategic directions and potential target markets.

**Approach:** In the pre-NSSF launch period, DTI will pursue measurement projects, drawing on existing survey and other empirical information, taking forward existing studies, consulting with academic specialists in the standards field. This work will focus on the role of standards in innovation and there will be direct interface with the DTI/HM Treasury -led innovation review of innovation policy.

**Next Steps:** In the longer-term rollout of the NSSF, DTI will undertake and contract for further econometric studies, possibly including a global assessment of the economic impact of standards, analogous to that done for the National Measurement System. More micro-level analysis will be undertaken and commissioned in close liaison with BSI to co-ordinate with their own economic model. In addition to these studies, projects will need to be defined covering a measurement, monitoring and evaluation scheme for the NSSF itself, which will create an ongoing evidence base.

**Project Structure:** The project will be managed by DTI's economic unit and will involve regular discussion and review with BSI.

**Resource:** Existing resource within DTI and BSI initially

**Deliverables:** A report summarising economic impact of standardization

A prioritised list of future research initiatives

**Measures:** Report published, prioritised list.

**Timescales:** April to September 2003

## ***Business- Business Dialogue***

Develop and maintain of a network of business contacts to ensure strategic business input to UK and international standardization priorities, and sector-specific opportunities for UK business. The principal objective of these activities will be to ensure that the standardization infrastructure reacts more effectively to business needs. Trade associations and professional institutions will be involved as key partners. 'Business Dialogue' is closely linked with 'Business Awareness', 'Infrastructure Co-ordination' and 'International' project areas.

**Initial Activity:** Establishment of a Business Forum

**Leader:** CBI

**Partners:** Trade Associations

**Objective:** To establish a focal point for securing the coordinated involvement of the business community in the strategic development of UK standardization.

**Approach:** Working with the CBI's Sectoral Affairs and Enterprise Groups- Trade Associations and CBI member companies will be invited to participate in a meeting to discuss the establishment of the Business Forum in terms of purpose, structure, membership and operation.

**Next Steps:** Activities will be dependent upon the outcome of the initial meeting

**Project Structure:** The project will be managed by the CBI Business Performance Group in the first instance.

**Resources:** Establishment of the Forum in the first instance from existing CBI resource.

**Deliverables:** Terms of reference, membership, coordinated input to strategic standardization issues.

**Measures:** Forum established, issues identified, outputs developed appropriate to the issues.

**Timescales:** April to September 2003

## ***Business- SME Solutions***

Measure and manage standardization issues specific to SMEs, developing solutions that meet these concerns (e.g. red tape, cost of compliance, representation). Outcomes of projects for SMEs will be aimed at increasing benefits of using and participating in standardization and reduced cost of compliance. Key partners will be the diverse bodies that represent SME interests. 'SME Solutions' is closely linked to 'Business Dialogue', 'Better Procurement' and 'Infrastructure Co-ordination'.

**Initial Activity:** Define and measure standardization issues specific to SMEs

**Leader: BSI:** Small Business Policy Committee

**Partner:** Small Business Service

**Objective:** Define specific SME issues where standardization can provide a solution. Develop a plan to address these issues ensuring that standards do not create competitive disadvantage for small businesses.

**Approach:** Prepare and distribute an SME survey.

Collate responses and issue report.

Devise activity plan to address confirmed priority concerns.

**Next Steps:** Implement plan of activities for SMEs.

**Project Structure:** The project will be managed by BSI Small Business Policy Committee.

**Resources:** Existing budget within BSI

**Deliverables:** Summary of findings – SME awareness of standardization, information sources, business drivers and key issues, Implementation plan.

**Measures:** Measurement of key stages in approach to timescale

**Timescales:** April to September 2003

## ***Infrastructure- Increased Efficiency***

Make standards development processes more timely and more accessible for stakeholders, and improve the way formal standards are selected for development. Key outcomes include project selection in formal standards development, reduced timescales in developing standards and outputs that are more relevant to stakeholder needs. While the National Standards Body (NSB) is a logical starting point, projects will involve partners across the standardization system. 'Increased Efficiency' is closely linked with 'Business Dialogue', 'Increased Capability', 'Infrastructure Co-ordination', 'Sustainable Funding' and 'International Standards System'.

**Initial Activity:** Improving the efficiency and relevance of the NSB

**Leader:** BSI

**Objective:** Begin to improve utilisation of resources in the development of standards and standards-related products & services as well as to increase the market relevance of NSB activities.

**Approach:** Implementation of a programme within the NSB focuses on 3 specific areas:

*Market Facing Structure*-Establishing a market-facing capability to develop a better understanding of business, government and societal needs. This capability includes the creation of 'Market Development Manager' roles, supported by a dedicated market analysis capability.

*Process Efficiency*- Putting in place a clear process for the acceptance of work items in order to improve efficiency and resource allocation in standards development. Initiatives to drive efficiency will be supported by new systems.

*Products & Services*- Defining a range of NSB products & services, including those beyond formal standards, which are even more relevant to stakeholder needs.

**Next Steps:** The next step will be to measure the impact of this programme and identify areas for further improvement, including the implementation of additional systems to support efficiency.

**Project Structure:** Managed by a 'Change Team' within BSI, in dialogue with BSI stakeholders.

**Resources:** As defined in BSI budgets

**Deliverables:** New market facing structure, New processes for efficiency, NSB products and services

**Measures:** Number of Market Development Managers; Revised service-levels defined; New range of products & services

**Timescales:** April to September 2003

## ***Innovation- Intellectual Property Management***

Develop policy and guidance on how to maximize commercial benefits of innovation through the combined use of patents, licensing, standards and other intellectual property management tools. Help business innovate throughout the lifecycle of a product or service. 'Intellectual Property Management' is closely linked with 'Innovation Watch', 'Infrastructure Capability' and 'Infrastructure Co-ordination'.

**Initial Activity:** Guidance on intellectual property management and standards

**Leader:** BSI

**Partners:** Patent Office, DTI-STRD

**Objective:** Develop a guide on the management of intellectual property, including effective use of patents, standards, licensing and other tools and techniques.

**Approach:** In the pre-NSSF launch period, analyse the relationship between intellectual property and standards using existing survey and empirical research data. In this process, consult with BSI, Patent Office and relevant academic specialists. Analysis will focus on defining intellectual property management throughout the innovation lifecycle and identifying appropriate tools to disseminate this information. There will be a direct interface between this project and the DTI/HM Treasury-led innovation review of innovation policy. BSI will facilitate development of guidance material.

**Next Steps:** Having developed an initial guide, ongoing policy dialogue between Patent Office and BSI to further address role of standardization in promoting effective innovation. Develop further case studies and guidance based on this analysis.

**Project Structure:** BSI, working closely with the Patent Office, will manage the project.

**Deliverables:** Guide -Identification of novel opportunities at interface between patents and standards

**Measures:** Availability of analysis data and production of documented guidance

**Timescales:** April to September 2003

### ***International- Government International Infrastructure***

Create an international network of contacts to promote UK influence, commercial interests and trade through embassies and consulates. ' Outcomes include access to new markets for UK businesses. UK embassies and consulates are key partners. 'Government International Infrastructure' is closely linked to 'Infrastructure Co-ordination', 'Business Dialogue' and 'International Development'.

**Initial Activity:** Assist UK posts abroad with standards- related trade promotion.

**Leader:** DTI

**Partners:** BSI/Trade Partners UK (TPUK)

**Objective:** To promote the use of standards as a strategic tool to boost UK exports and counter competitive threats.

**Approach:** DTI/BSI to develop appropriate briefing material for staff in TPUK.

**Next Steps:** DTI and BSI to discuss with TPUK the implementation of awareness programme for TPUK staff.

**Project Structure:** The project will be managed by DTI and BSI, working closely with TPUK.

**Resources:** Use of existing resources.

**Deliverables:** Incorporation of awareness training in internal briefings and existing courses.

**Measures:** Materials to be produced by DTI/BSI. Training delivered by/DTI/BSI/TPUK

## **Infrastructure- Consumer Effectiveness**

Make consumer input into standards development process more effective by developing new ways of working and engaging with business needs. Key outcomes include driving standards and standardization into new areas to the benefit of society, business and government. Consumer Effectiveness is closely linked with, 'Increased Efficiency', 'Increased Capability', 'Public Relations' and 'Communications'

**Initial Activity:** Coordinate CA priorities with those of BSI/CPU and use CA's consumer network to identify potential new consumer representatives

**Leader:** Consumers' Association (CA) with BSI's Consumer & Societal Policy Unit (CPU)

**Objective:** Better coordination of BSI's consumer priorities with those of the UK consumer movement.

Better targeted consumer representatives recruited, additional specialist training provided to representatives on consumer and technical representational activities. More resources working where it matters most.

**Approach:** Implementation of a programme with 2 areas

*Strategic-* Whilst recognising the need for continued safety-based work at a detailed technical level, CA and the consumer movement in general have moved on from product safety to other very important areas of consumer detriment, such as food, health and services. Some of these areas are poorly served by standardization. CA will provide technical support through its member complaints, findings from testing and research, and will link its scientific advisors more closely with BSI's consumer representatives to focus more selectively on areas of consumer detriment that should be addressed by standards.

*Operational-* CA will work with the CPU to broaden consumer representation in target areas through recruitment, using its membership base. CA will use its expertise to assist CPU to develop and deliver an extended training programme to increase the effectiveness of representatives and the tools they use, providing them with up to date technical and consumer and management (prioritization, goal setting) knowledge needed to address consumer issues in both mature and new areas.

**Next Steps:** The project will run for one year commencing in Autumn 2003

**Project Structure:** Managed by CA and BSI/CPU with three parallel tracks: Strategy development; recruitment planning and realization; training development and delivery.

**Resources:** To be established.

**Deliverables:** Strategic support for consumer engagement in standards work. More focused, prioritized areas of consumer engagement in Standardization, including new work areas and projects; twenty additional representatives recruited and all representatives trained to present the consumer positions more effectively - Ultimately, greater consumer confidence from standards that address real consumer needs.

**Measures:** Key areas defined and engaged; number of additional representatives; training courses delivered.

## ***Awareness & Education – Education***

Develop educational tools and guidance material seeking to embed standardization in the formal education curriculum. Seek to raise awareness of the relevance and practical application of standards at multiple levels from consumers through to business users. Education is closely linked with 'Research', 'Skills Development', 'Public Relations' and 'Communications'.

Development of a programme of activities and projects that contribute to the awareness of the value of standards and of the wider benefits of standardization to all educational levels from primary to tertiary.

**Initial Activity:** A project to support students of the Engineering and Manufacturing GCSE qualifications at secondary and college level.

**Leader:** BSI in conjunction with the Learning Skills and Development Agency

**Objective:** To raise awareness of the function and benefits of standards within the engineering and manufacturing industries to students in schools and colleges who are studying for the GCSE qualifications in Engineering and Manufacturing.

**Approach:** An online project to demonstrate the importance of British Standards to the successful design and manufacture of engineered products. Provides simplified standard tests as part of students' assessed course work, plus guidance for teachers.

**Next Steps:** Monitoring take-up and use of the project to determine future support in this subject area.

**Project Structure:** The project is managed by BSI Education

**Resources:** Supported by DTI

**Deliverables:** a publicly available online project demonstrating to Key Stage 4 students the value of standards within engineering and manufacturing in the UK.

**Measures:** take-up of the project by schools and colleges initially , measured by number of hits on the site.

**Timescales:** January - July 2003

## **Infrastructure - Co-ordination Mechanism**

A mechanism to assess, prioritise, resource, monitor and manage implementation of UK standardization initiatives, including the NSSF. Activity will review and build on or replace existing structures, such as the Standards Policy Committee within government, encompassing areas where new co-ordination may be needed. Improved co-ordination will maximise the ability of the standardization infrastructure to meet the diverse needs of stakeholders. 'Co-ordination Mechanism' is closely linked with 'Sustainable Funding', 'Business Dialogue', and projects within the 'International' area.

**Initial activity:** The DTI are commissioning a study to identify the advantages of greater co-ordination between measurement and technical standards systems by integrating the National Measurement System (NMS) into the NSSF.

**Leader:** DTI (NMSD)

**Partners:** DTI (STRD), NPL, NEL, LGC, BSI, UKAS & PA Consulting

### **Background:**

The NMS provides the UK with an infrastructure of laboratories and technical services which deliver world-class measurement science and technology, providing traceable and increasingly accurate standards of measurement for use in trade, industry, academia and Government. It ensures a consistently and internationally recognised basis for measurement in the UK and allows business and consumers to have confidence in the measures and quantities of traded goods.

The DTI formulates and funds measurement research in support of the NMS and this is primarily delivered through three laboratories: the National Physical Laboratory (NPL); NEL (the former National Engineering Laboratory); and LGC (the former Laboratory of the Government Chemist). The results of NMS research are, amongst other things, the primary national measurement standards, which may be artefacts, such as the standard kilogram, reference materials for chemical measurement, or pieces of equipment, such as the flow rate standards.

The development of new or improved measurement capabilities is often important for realising new technical standards, some of which may be required to support new legislation or regulations. Industrial players, standards bodies, and measurement expertise all need to be aligned if technical standards are to be established to benefit local and national economies.

A key strand of the NMS infrastructure is support for international measurement activities, for example, through representation of UK interests on international standards committees and the management of technical international inter-comparisons. This is the avenue through which the NMS interfaces most closely with the objectives of the NSSF.

**Objective:** The purpose of the study is to define a process by which the key stakeholders can ensure that the direction of NMS projects and use of NMS resources are used to best effect in directing NMS input to technical standards.

**Approach:** The fieldwork will identify:

Who the key stakeholders are; How resources are used now; What the "ideal" is in the eyes of different stakeholders -what they want; What can be done in directing and using NMS resources most effectively; What can be learnt from the UK's trading partners.

**Next Steps:** In addition the study will identify opportunities for closer working between key stakeholders (e.g. BSI NMSD, STRD) in order to share best practice, for example in Knowledge Transfer and impact assessment initiatives.

**Project Structure:** The project will be managed by DTI.

**Resource:**

**Deliverables:** The findings and recommendations will help the DTI and partner stakeholders to develop a strategy for directing NMS input into key priority areas.<sup>§</sup>

**Measures:**

**Timescales:** The fieldwork is expected to commence on 13<sup>th</sup> October 2003.

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<sup>§</sup> Example Removing Barriers to Innovation Through Standards

An NMS project to address technical barriers in North Sea Oil & Gas installations has been instrumental in enabling the exploitation of a technical revision of the ISO 5167 Standard (Measurement of fluid flow by means of pressure differential devices). NEL (the former National Engineering Laboratory) analysed the results of US research to prove that gas installations could be radically redesigned, but still remain within the accuracy requirements. NEL was then instrumental in ensuring that this redesign was incorporated into a revision of the Standard so that these improvements could be realised.

The advantages arising from the revised Standard's specification are many: reduced material costs, manufacturing savings, platform space and weight reductions, all of which contribute to significant overall financial benefits. It has been estimated, for instance, that in one typical installation (Rhum), AMEC stand to achieve a saving of approximately £1m. These savings were made on just one tieback to one platform and there are several hundred such installations in the North Sea alone. The UK Oil & Gas industry is now set to exploit the advantages of the revised Standard and benefit from its consequential huge cost savings. ( Whilst there is significant NMS activity (of which the above example is just one) within the different levels of standards committees, this activity has not been determined or prioritised by the key NSSF stakeholders.)

### **3. Build on existing activities - 2004**

#### ***Business - Business Awareness***

Demonstrate the benefits of standardization and develop guidance material to support the application of standardization at multiple levels within business. Awareness initiatives will be targeted at priority sectors in the UK and will highlight the potential to use standardization strategically. Trade associations will play a key role in the dissemination of this information. 'Business Awareness' is closely linked to 'Business Dialogue', 'Business Engagement' and 'Awareness & Education' initiatives.

#### ***Government - Government Awareness***

Demonstrate benefits of standardization and develop guidance material and training to support the use of standardization across government. Initiatives will raise awareness in government departments of appropriate application of standardization in policy, regulation and procurement. 'Government Awareness' is closely linked to 'Government Appraisal', 'Government Options' and 'Better Procurement' initiatives in addition to 'Awareness & Education'.

#### ***Infrastructure - Co-ordination Mechanism***

A mechanism to assess, prioritise, resource, monitor and manage implementation of UK standardization initiatives, including the NSSF. Activity will review and build on or replace existing structures, such as the Standards Policy Committee within government, encompassing areas where new co-ordination may be needed. Improved co-ordination will maximise the ability of the standardization infrastructure to meet the diverse needs of stakeholders. 'Co-ordination Mechanism' is closely linked with 'Sustainable Funding', 'Business Dialogue', and projects within the 'International' area.

#### ***Infrastructure - Sustainable Funding***

Develop a long-term sustainable funding plan for the UK standardization infrastructure, building an understanding of the economic impact and value added by standardization. This will support the long-term health of the standards infrastructure, ensuring a balance of stakeholder interests. 'Sustainable funding' is closely linked to 'Co-ordination Mechanism' and 'Research' projects.

#### ***Infrastructure - Increased Capability***

Increase capability and transparency of the National Standardization System, to encompass a full range of standardization solutions, including informal options. The outcome in this area will be business understanding of how and when to use particular standardization options encompassing the spectrum of formal and informal, and public and private, standardization solutions. 'Increased Capability' is closely linked with 'Business Awareness', 'Research' and 'Increased Efficiency'.

### ***International – International Standards System***

Maximise UK influence and trade through the international system, focusing on priority markets and countries. This will inform the NSB strategy in European and International standards development, creating opportunities for UK businesses. The International Standards System is closely linked to 'Business Dialogue' and 'Co-ordination Mechanism'

### ***Awareness & Education – Public Relations***

Develop the case for standardization, positioning the issue with decision-makers in business and government. Public relations efforts will also target societal stakeholders such as consumers. 'Public Relations' is closely linked with 'Business Awareness', 'Government Awareness', 'Research' and 'Communications'.

### ***Awareness & Education – Communications***

Stimulate the motivation to use standards and participate in the standards development process. Target societal stakeholder groups in addition to business and government. The project will build on NSB communication activity in 2003, including the launch of the NSSF. 'Communications' is closely linked with 'Business Awareness', 'Government Awareness', 'Research', 'Skills Development' and 'Education'.

### ***Awareness & Education – Skills Development***

Develop and deliver training on the application and use of standards and standardization as both a technical and strategic tool. Training initiatives will support communications efforts targeted at both business and government, involving trade associations and professional institutions. NSB skills development activities will enable the understanding of standardization to be incorporated in relevant professional qualifications. 'Skills Development' is closely linked with 'Business Awareness', 'Government Awareness', 'Education', 'Public Relations' and 'Communications'.

## **4. Long Term Projects**

### ***Business - Business Use***

Business will drive standardization activities within their individual companies, placing standards on the strategic agenda as a tool to increase competitiveness and productivity, and making the best choice of standardization method for specific business needs. 'Business Use' is dependent upon 'Business Awareness', 'Business Dialogue' and other 'Awareness and Education' initiatives.

### ***Government – Appraisal***

Understand where and how standards are used across the public sector and so identify opportunities to use standards more effectively, defining best practice while bearing in mind the different needs and the range of standardization solutions available. 'Appraisal' is closely linked with 'Government Awareness', 'Government Options' and 'Better Procurement'.

### ***Government- Standardization Options***

Develop and co-ordinate a range of options supporting the use of standards to implement policy and regulation through more coherent interaction between the NSB and the public sector. The outcome will be to spread best practice across government, increasing the effectiveness of policy and regulatory activities in which standardization is relevant. 'Standardization Options' is dependant on the 'Appraisal' and 'Government Awareness'.

### ***Government – Better Procurement***

Use standardization to gain purchasing efficiencies and increase transparency for suppliers to the public sector, and improved opportunities for SMEs. Outcomes include reduced costs across the public sector and improved access for SMEs to the public procurement process. 'Better Procurement' is dependent on 'Standardization Options', 'Appraisal', 'SME Solutions' and 'Government Awareness'.

### ***International - International Development***

Coordinate and align the priorities of the NSB with DfID in targeting assistance of developing countries. Key outcomes include enhanced relationships with developing countries through knowledge and technology transfer. 'International Development' is closely linked with 'Government International Infrastructure' and 'Formal International Standards System'.

### ***Innovation – Innovation Watch***

Understand where new industries, technologies, processes and business methods can benefit from standardization and address specific opportunities. The outcome of this activity will be the successful development of innovative Industries, where standardization can provide a platform for growth. 'Innovation Watch' is linked with, 'Knowledge Management', 'Co-ordination Mechanism' and 'Increased Capability'.