



Annual Report 2011

ENABLING ENTERPRISE EXCELLENCE

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# AN INTRODUCTION TO NSAI

NSAI is a statutory body established by the National Standards Authority of Ireland Act 1996. It operates under the aegis of the Minister for Jobs, Enterprise and Innovation with responsibility for the national standardization and conformity assessment mandate.

NSAI provides Ireland with a trade infrastructure for products and services relied on nationally and around the world. This infrastructure is essential to Irish business and also contributes positively to decisions on Foreign Direct Investment (FDI), where organisations rely on developed standards and a conformity assessment infrastructure to achieve their objectives such as the developing medical devices sector.

Uniquely in Europe, NSAI hosts four of the five primary technical pillars identified by the United Nations Industrial Development Organization (UNIDO) as prerequisites for an efficient trading economy (Fig. 1). These are:

- STANDARDIZATION (NSAI STANDARDS)
- CONFORMITY ASSESSMENT (NSAI CERTIFICATION)
- LEGAL METROLOGY (NSAI LMS)
- METROLOGY (NSAI NML)

These activities contribute to enabling trade and protecting the consumer.

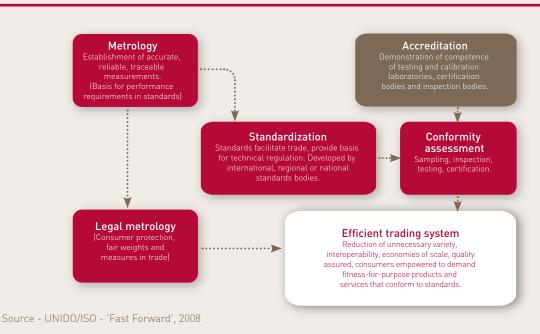
At its highest level the purpose of NSAI is to provide a dynamic organisation using measures and standards to benefit society and give Irish enterprise a global advantage. Throughout the current three year strategy, 2009-2011, the attainment of this mission has been supported by four-high level goals:

- **Open Market Infrastructure –** Maximising trade development and consumer benefits
- Enhanced Business Performance Enhancing the progress of Irish businesses
- Fostering the Innovation and Knowledge Economy Promoting R&D, innovation and intellectual capital
- **Supporting Sustainability** Addressing energy management, material usage and environmental impact as these become increasingly important business parameters

Management of Standards, Conformity Assessment (in the form of Certification) and Metrology ensures confidence in the foundation of Ireland's trade infrastructure. The interconnected nature of the technical pillars ensures that Irish enterprise and consumers reap the benefits of an efficient trading system (Fig. 1).

NSAI serves to underpin the national trade infrastructure, which supports the key objectives of Government in providing an environment that is both supportive of enterprise and maintains Ireland's trading reputation for quality goods and services, while also protecting the consumer.

NSAI provides Ireland with a trade infrastructure for products and services relied on nationally and around the world.



#### Fig. 1 Trade Infrastructure for an Efficient Trading System

# CHAIRMAN STATEMENT

AS THE GLOBAL AND DOMESTIC ECONOMIES CONTINUED TO STRUGGLE IN 2011, NSAI FOCUSED ON A RESPONSIVE AND FLEXIBLE APPROACH TO SUPPORT IRISH ENTERPRISE IN ORDER TO GIVE THEM A GLOBAL ADVANTAGE DURING THIS TIME OF ECONOMIC UNCERTAINTY.

#### NSAI Business Performance

2011 was the final year of NSAI's three year strategy, Enabling Enterprise Excellence. In the current climate the completion of this strategy reflects on the relevance and importance of the Authority's work and the dedication of its people. As Ireland's independent centre of excellence for standards development, certification and metrology, NSAI integrated these areas of expertise with other Government initiatives, and the urgent need to rebuild competitive advantage for Irish based business.

NSAI has adapted effectively to the rapidly changing economic conditions and this emphasises the flexibility and responsiveness of the Authority. Not only were the Strategic Plan's objectives pursued successfully, but new initiatives were instigated to deal with unanticipated requirements in Ireland, and broader international demands.

By providing services under the three categories of Standards, Certification and Metrology, we facilitate Irish enterprise by addressing many of the urgent needs of Irish businesses, as well as enhancing our longer-term infrastructural framework to support Irish economic activities. We are also helping to create competitive advantage and protect consumers nationally and internationally.



A new strategy is under development and this will continue our objectives of helping the Irish economy to recover through standards, certification and metrology.

As 2011 drew to a close two key successes demonstrate the different facets of NSAI's role.

The introduction of I.S. EN ISO 50001 reinforces Ireland's reputation in the field of energy management standards. This global standard supersedes the European standard, I.S. EN 16001, which was developed as a result of the Irish energy management standard (I.S. 393). Irish bodies made a vital contribution to these standards and this is supported by Irish enterprise, with over 50% of large Irish based companies applying such standards.

The second success reflects the Authority's adaptability and responsiveness to Irish consumer needs. The introduction of SWiFT 8 for Carbon Monoxide alarms was an important step as one of NSAI's Consultative Committees had identified certain deficiencies in the European standard (EN 50291-1:2010). A rapid response was initiated to create an Irish standard that would resolve these problems. This was done through the SWiFT mechanism and it will bridge the gap before a revised EN standard is introduced.

The year also saw important progress in protecting the consumer with the first prosecution of a retail service station for using inaccurate liquid fuel dispensers.

### Board of Directors

The NSAI Board of Directors is committed to ensuring the maximum return on investment of public funds and the highest standards of corporate governance. There have been considerable changes to the Authority in recent years, in terms of staffing and funding, and we have ensured that the principle of value for money continues to apply to all of the Authority's activities. Accordingly, the Board and management team have conducted all duties with full commitment to our responsibilities as a statutory agency, and ensured that our governance arrangements are appropriate to our position as the national standards body for Ireland.

#### Outlook

2012 will be another challenging year for NSAI, Ireland and the global economy. There is much uncertainty but, on a micro level, NSAI's successful delivery of the Strategic Plan is a positive step for Irish businesses and consumers. A new strategy is under development and this will continue our objectives of helping the Irish economy to recover through standards, certification and metrology.

#### In Appreciation

On behalf of NSAI, I would like thank the Minister for Jobs, Enterprise and Innovation, Richard Bruton T.D., Minister for Small Business, John Perry T.D. and the officials at the Department for their support in 2011.

As Chairman, I also wish to thank my fellow Board members for their invaluable support and commitment. In 2011, four members of the Board of NSAI retired. On behalf of the Board, I would like to thank Jennifer Murnane O'Connor, Eddie Wade, Richard Hadfield and Helen Curley for their commitment and invaluable contribution during their tenures.

My thanks are extended to the many organisations, committee members and industry experts for their significant input in facilitating the participation of industry in the work of standardization and extending public awareness of the scope and significance of standards.

The contribution and commitment of staff is central to the performance of NSAI, and the continued challenges of 2011 were met with dedication, determination and professionalism. The Board and management team are grateful for this ongoing commitment to deliver quality services and maintain business confidence in NSAI.

Ann Riordan Chairman

# CEO REPORT

2011 SAW VERY CLEAR MEDIUM TERM ECONOMIC DIRECTION AND POLICY THROUGH THE PROGRAMME FOR NATIONAL RECOVERY AND THE PROGRAMME FOR GOVERNMENT. IN NSAI WE RE-ALIGNED OUR STRATEGY, WORK PROGRAMMES AND PRIORITIES ACCORDINGLY.

#### **Opening Markets**

The first and perhaps the dominant pillar of our NSAI strategy is 'Open Market Infrastructure'. This wording refers both to the EU Open Market and the ambition of NSAI to open access further to markets by providing the tools to manage the infrastructural issues involved. For any market there is a set of conditions and controls that allows trade to flourish with a minimum of restriction, while adequately protecting the consumer and wider society. This is depicted by the simplified United Nations Industrial Development Organisation (UNIDO) model on our front cover. It captures the importance of interlinked Metrology, Standards and Conformity Assessment, all of which are within the NSAI remit. This theme flows through our work and throughout this report. Our infrastructural model will be developed in the coming years as a more explicit tool to help sectoral as well as general economic growth.



Working on a daily basis as we do with leading organisations in the private sector, NSAI is well positioned to adapt best business practice to the requirements of the Irish public sector.

#### Alignment to the Programme for Government

2011 saw very clear medium term economic direction and policy through the Programme for National Recovery and the Programme for Government, which was agreed by the newly elected Fine Gael and Labour coalition in February. In NSAI we re-aligned our strategy, work programmes and priorities accordingly, both at the level of specific proposals and the strategic thrust contained in these documents. Working closely with the Sustainable Energy Authority of Ireland (SEAI), we intensified our efforts to provide the support infrastructure to upgrade the energy efficiency of our housing stock and to promote efficient energy management in industry through the launch of ISO 50001. We also commenced work with the Irish Internet Association on a standard to support the procurement of Cloud Computing services. Both programmes are described elsewhere in this report. Broader policy areas where NSAI can readily contribute are in the reform of the public sector and supporting job-rich economic growth.

#### Public Sector Reform

Working on a daily basis as we do with leading organisations in the private sector, NSAI is well positioned to adapt best business practice to the requirements of the Irish public sector. ISO 9001, the most widely adopted management standard internationally, has assisted complex corporate organisations to create a strong customer focus, staff mobility, streamlined processes, and a clear focus on measurable objectives which are precisely the challenges facing public sector bodies today. NSAI continued to promote its special adaptation and interpretation of ISO 9001 for the Irish public sector. Finding the upfront investment of time to implement such systems is challenging during a period of retrenchment, but several early movers such as the Irish Aviation Authority (IAA) and the Food Safety Authority of Ireland (FSAI) now have very solid, proven systems in place that are paying rich dividends in facilitating their excellent performance delivery. I particularly compliment the Road Safety Authority (RSA) who worked in 2011 to become the first public body in Ireland to achieve combined certification to ISO 9001 (Quality Management), ISO 14001 (Environmental Management) and OHSAS 18001 (Health & Safety Management).

In providing the tools for improved public sector performance, we must also demonstrate our own ability to make reforms, generate savings, and improve performance within NSAI itself. In this context we have a target to reduce staff numbers by 30% from the levels of the last ten years while maintaining services. This is almost twice the overall Public Sector Agreement target and it is only possible if we succeed in realising the return on investment we have made in recent years in ICT and in our own ISO 9001 management system. Primarily through the non replacement of retirees and the redistribution of their work, NSAI will have already achieved a reduction of 20% in service delivery staff and over 35% reduction in managerial staff numbers by February 2012. Again, adopting best practice from the private sector, NSAI plans a number of LEAN projects in 2012 to ensure the maximum percentage of time is spent on truly productive work for our customers, thus ensuring that service levels are maintained as staff numbers reduce.

# CEO REPORT (continued)

In 2011, a purpose-developed certification scheme to SWiFT 3000 was launched using a combination of process and corporate governance experts to ensure only genuinely well-run boards could achieve certification.

#### Improving Corporate Governance

During 2010, in response to governance concerns in both the private and public sectors, NSAI produced SWiFT 3000: Code of Practice for the Assessment of Corporate Governance, initiated by the Institute of Directors (IoD) and strongly supported by business, professional and state bodies. In 2011, a purpose-developed certification scheme to SWiFT 3000 was launched using a combination of process and corporate governance experts to ensure only genuinely well-run boards could achieve certification. I congratulate the SEAI on becoming the first public body certified, and Enterprise Ireland who were well advanced in the process by the end of 2011.

#### Economic Growth and Jobs

The Medical Device sector is identified by Government as a priority area with the capacity to deliver continued growth. In 2011, NSAI has further strengthened its position as a first tier notified body for site and product approval. This greatly boosts the support available to start-up companies and the case for Ireland to be considered a global centre of excellence for this industry. We have grown our Medical Device certification output every year since 2008 and again achieved over 10% growth in 2011 through following our twin strategy of targeting the large US-based corporations at source while also supporting indigenous industry and the local subsidiaries of multinational companies in Ireland, predominantly on the west coast. Indeed, we hope to open a Medical Device Certification office in Galway during 2012, to be even closer to this market.

The food and agricultural sector is another area of high growth potential serviced by NSAI standards and certification programmes, which supplement the work of An Bord Bia and the FSAI. The leading Irish companies already operate to very high standards and NSAI is encouraging smaller, specialist companies to move beyond the basic retailer chain requirements and implement ISO 22000 and Food Safety System Certification (FSSC) standards as a platform for export marketing.

To date, Ireland has been primarily a 'standards taker' rather than an international 'standards maker'. With continued national focus on innovation and more knowledge intensive business, a more proactive engagement with the standardization process is required. NSAI will continue to promote greater international involvement by Irish engineers and scientists, especially those involved in innovative product and process development. The market intelligence to be gained is phenomenal and several Irish companies, such as Daon and Dromone Engineering, are already using standardization work to anticipate and shape future markets for their products. A number of economic studies by ISO and national standards bodies around the world have estimated the value of standardization to economic growth at up to 1% of GDP. The NSAI initiative 'Your Standards, Your Say' offers SMEs an easy internetbased first access to development work in any particular field and can be a precursor to full involvement in standardization.

Finally, an authoritative study showing a definite causal link between the implementation of ISO 9001 and sustained improved performance, led us to place a renewed focus on the competitive advantage of ISO 9001 and other management system standards for business. Irish companies gained a substantial marketing advantage during the 1990s through the early adoption of the then less widely recognised ISO 9001 standard. Even though this first mover advantage has long since waned, the Harvard research shows beyond reasonable doubt that a more fundamental and sustainable performance advantage is achievable. NSAI believes Ireland has a strong base in this area and will seek to mobilise the expertise that exists in the country to seek a new competitive advantage through a vigorous focus on fundamental quality and business excellence.

We believe we are on the right track and that the future prospects for the role NSAI can play in economic recovery are excellent. Even with our reduced resources, NSAI is well placed to make an increasingly important contribution through appropriate market infrastructure measures such as those described here.

#### Financials

In a year where our exchequer funding was reduced by 14%, we successfully operated to strict financial targets and reduced staff numbers. We delivered a very strong performance as evidenced by maintaining income levels at €18.6m, achieving a further 4% reduction in costs and reporting an operating surplus of €0.9m. During 2011, NSAI continued a limited capital expenditure programme. The primary development was to improve capacity in our metrology systems in the National Metrology Laboratory (NML) by commissioning a highly sophisticated automated handling system for mass calibration. This addition will enhance NSAI's capability for mass calibration which is an increasingly busy area of our operations.

#### Communications and Awareness

Communications and awareness activity continued during the year. A new approach, using client testimonials, contributed to increased levels of visitors to the NSAI's website, and awareness campaigns continued to promote standards and issues of public interest. RepTrak, a survey that measures the reputations of the largest and most visible organisations in Ireland (and worldwide), has reported that NSAI exceeds the Irish average Pulse score by 5 points and was well placed within the Services industry category in 2011. These are highly positive figures and show that by raising awareness within industry, we are providing greater opportunities for businesses to avail of NSAI services and build competitive advantage in the businessto-business and business-to-consumer worlds.

#### Conclusion

We believe we are on the right track and that the future prospects for the role NSAI can play in economic recovery are excellent. Even with our reduced resources, NSAI is well placed to make an increasingly important contribution through appropriate market infrastructure measures such as those described here.

Given the demands on our organisation during the year, I particularly wish to acknowledge the tenacity and spirit of the entire NSAI staff in adapting to changed circumstances yet still achieving the goals as set out in our Strategic Plan. This is a remarkable feat under the circumstances and it is clear that we would not have completed the plan without their efforts.

I also thank our partners in industry and Government for their support, and extend my thanks to the NSAI Board and management for their hard work during the year to achieve our objectives.

Maisra Brekly

Maurice Buckley Chief Executive Officer

# STANDARDS

STANDARDIZATION HELPS IRISH COMPANIES TO TRADE FROM IRELAND'S OPEN ECONOMY INTO WORLD MARKETS. THIS IMMEDIATE AND UNHINDERED ACCESS IS PARTICULARLY IMPORTANT AS THE ECONOMY CONTINUES ITS RECOVERY EFFORTS.

Through the cross section of services provided, there are numerous entry points for SMEs to engage with NSAI, and NSAI Standards can help these firms to leverage the benefits of standards for their sector.

NSAI Standards is the internationally recognised National Standards Body (NSB) for Ireland. It is responsible for the publication, promotion and sales of standards, but its core role is the co-ordination of the participation of Irish industry in the development and production of Irish, European and global standard specification documents.

The adoption of common international standards creates a level playing field for Irish businesses selling into European and global markets. Standardization helps Irish companies to trade from Ireland's open economy into world markets. This immediate and unhindered access is particularly important as the economy continues its recovery efforts. By operating a national consultative infrastructure, which provides enterprise with participative access to the standards development processes, NSAI Standards supports Government policy under a number of headings, including:

- Exports: As an export driven economy, the Irish recovery must be export-led. It is essential that the standards adopted by Irish enterprises are those that are recognised and accepted globally within their sector and, ideally, help Irish enterprises gain first mover advantage as new standards emerge. In order to facilitate the export market the majority of NSAI Standards' work is focused at the international level, developing standards with our partners in CEN, CENELEC, ISO and IEC. To that end, participation in standardization provides enterprises with: valuable advance information on draft specifications that are likely to form the basis of future published standards; and the ability to shape and influence the content of these standards at an early stage. Ultimately, this provides improved access to markets and supply chains which are important for export-led growth.
- Innovation & Commercialisation: A primary aim of Government is to develop a sustainable innovation driven economy that maintains its competitive advantage and increases productivity. While innovation has traditionally

been seen as technology-led, it is today seen in a broader context. Innovation is now described as the exploitation of new ideas in pursuit of competitive advantage. This includes the development of new or enhanced products and services, but also includes the introduction of new business models, new organisational structures and new work practices. Standardization is the core component in codifying, capturing and commercialising the advances achieved in order to build and sustain a knowledge-based, smart economy.

 Supporting SMEs: 2011 saw the publication of the report of the Advisory Group for Small Business. The report captures the importance of small firms to the Irish economy: some 200,000 small firms employ over 650,000 people. These firms operate across a broad spectrum of sectors and activities, including software, medical technologies, food production, digital content, tourism, retail and wholesale businesses, and professional services. Many operate with limited resources in environments where observance or reliance on standards is a basic entry level requirement. Many small and medium sized enterprises aspire to move from being a 'standards taker' to a 'standards maker', thereby exploiting the potential of standardization to grow their business more rapidly.

Through the cross section of services provided, there are numerous entry points for SMEs to engage with NSAI, and NSAI Standards can help these firms to leverage the benefits of standards for their sector. This is primarily achieved through a free and accessible standardization development process, with its immense market intelligence potential.

Services are also being enhanced through specific information initiatives for the SME sector. The Your Standards Your Say online comment facility, in respect of technical documents and standards at development phases, has been a watershed in enhancing the consultation process.

# STANDARDS (continued)

As the European trade infrastructure continues to emerge through the New Approach Directives and Harmonsied Standards, the ability to influence the content of standards is of significant benefit to Ireland. The potential opportunity for Irishbased companies to engage in product and service development and export-led trade is growing as technical barriers to trade are reduced. However, to take advantage of this, Irish companies must effectively and with the minimum of bureaucracy meet their responsibilities under EU and international technical regulations which, under modern best practice, reference and rely on technical standards relevant to each sector.

#### **Consultative Committees**

Through international rules, Ireland has an equal voice to that of much larger countries in the international standardization process and NSAI Standards formulates the national input through consultation with various interested consumer, environmental, industry and government parties.

NSAI Consultative Committees are appointed under Section 10 of the NSAI Act, 1996, to perform the following functions:

- to advise NSAI, as requested, on what Irish Standards and codes of practice are necessary for products and processes, within the scope of the Committees;
- to draft appropriate standards and codes of practice, and amendments, for adoption by NSAI;
- to ensure that interested parties in Ireland are consulted in the drafting of these standards.

During 2011, NSAI facilitated over 50 committees with in excess of 1,500 experts who gave their time freely to ensure Ireland's contribution is represented in the international standards committees and the extensive range of standards documentation published during the year (Fig. 1). These experts also benefit their own organisations through exceptional access to the network of industry experts (researchers, potential customers, competitors and suppliers), the resulting early access to new standards under development and the ability to influence market-shaping standards for the future.

# STANDARDS – THE YEAR IN REVIEW OPEN MARKET INFRASTRUCTURE

#### Business Participation

In 2011, NSAI continued its initiative to encourage Irish technologists from industry and research institutions to participate directly in international standardization. Specifically, this is through ISO, IEC, CEN, CENELEC and ETCI, where international markets are supported. 2011 saw a 52% increase in business participation at the international standardization level, to over 200 active experts. Further increases in the level of business participation in international standardization will help to accelerate economic growth in technology areas such as ICT, green technology, electric vehicles, smart grids and alternative energy.

### 1,400 Standards Published

The number of standards documents published by NSAI during the year increased by over 20%, to approximately 2,000, including 1,400 new standards. This brings the NSAI library of standards documents to in excess of 23,000, while over 12,000 publications were sold across a broad range of sectors in 2011.

The majority of NSAI Standards are focused at the international level, with the result that the need for indigenous standards has lessened in recent years. Indeed, in our role as an EU Member State, there is a process of revoking existing national standards as they are superseded by European Norms. In 2011, NSAI revoked some 900 documents.

Indigenous standards are only initiated when there are unique and specific requirements that require a national response. During 2011, seven national standards documents were published, including two full national standards:

- I.S. 441:2011 Quality requirements for a compost manufactured from source segregated, separately collected, biodegradable materials (see page 12).
- I.S. 419:2011 Fire safety requirements for components of furniture.

Fig. 1 details the number of standards and the number of supporting documents that NSAI published. These are explained below.

#### Fig. 1 Standards Documents published in 2011

	Standards	Corrigenda	Amendments	S.R.	National Annex	SWiFT
CENELEC	354	35	79	11	0	0
CEN	1,050	194	39	213	4	0
NSAI	2	2	1	0	0	2
Total	1,406	231	119	224	4	2



Pictured at the launch of I.S. 441 are (L to R) John O'Neill, Department of the Environment, Community and Local Government, Maurice Buckley, NSAI, Mr Phil Hogan T.D., Minister for the Environment, Community and Local Government and Conor McGovern, rx3

#### Standard

Irish Standard (I.S.) – a national specification based on the consensus of an expert panel, subject to public consultation and published solely by NSAI.

European Standard (EN) – is a standard adopted by CEN/ CENELEC and carries with it an obligation of implementation as an identical national standard as well as the withdrawal of conflicting national standards. Once adopted by NSAI, a European Standard is published as an I.S. EN.

#### Corrigendum

A supplementary document to one, two or all three language versions (English, French and German) of a CEN/CENELEC publication, which corrects one or more errors or ambiguities inadvertently introduced in either drafting or printing, and which could lead to incorrect or unsafe application of those versions.

#### Amendment

A ratified supplementary document to an EN (and a Harmonisation Document (HD) for CENELEC) already circulated to CEN/CENELEC national members for national implementation, to be read in conjunction with that EN / HD and which alters and/or adds to previously agreed technical provisions in that EN / HD.

### S.R.

Standard Recommendation is a recommendatory document based on the consensus of an expert panel and subject to public consultation.

#### **National Annex**

A supplementary element added to the back of an adopted European Standard (normally informative) to aid the reader in understanding the Standard and make it easier to implement. It can contain information that is unique to the relevant National Standards Body.

#### SWiFT

A Specification Written in Fast Track is a rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

### ENHANCED BUSINESS PERFORMANCE SWIFT

International standardization is, by its nature, often a protracted process involving extensive consultation and, ultimately, consensus. In response to this lengthy process, NSAI introduced the concept of SWiFT (Specification Written in Fast Track), which offers an alternative better suited to the requirements of Irish businesses in specific situations where urgency is paramount and broad consensus can be readily established.

The importance of SWiFTs – now in their third year – continued to grow in 2011. They are recognised for expediting specifications and codes promptly and helping to ensure a standard of consistency in products and services. SWiFTs contribute to Ireland's infrastructural support as well as the needs of today's Irish industry for timely publication of industry specifications. 2011 saw two new SWiFT projects initiated and two SWiFTs being published, which reflected the specific requirements of industry sectors:

- SWiFT 7, for the verification of environmental parameters for bagged coal;
- SWiFT 8, which addresses concerns surrounding Carbon Monoxide alarms (see page 13).

# FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

### Your Standards Your Say

One of the key initiatives of the year was the launch of the Your Standards Your Say portal, through the NSAI website. Your Standards Your Say is a national consultation platform that facilitates large companies, SMEs and individuals alike to comment on and influence the content and direction of standards by using a dedicated online portal. The portal www.nsai.ie/ yourstandardsyoursay offers enterprises several benefits:

- pre-market intelligence on draft standards (Irish and international), which may affect their enterprise;
- greater visibility on how standards are devised;
- companies and individuals may comment and make contributions on upcoming standards, thereby potentially influencing the final standard to be published.

NSAI is only the fifth standards body in the world to launch an online resource of this type. The website is particularly advantageous for small businesses which, unlike larger organisations, may not have the resources to participate actively in a standard's development. Further developments will see NSAI launching a dedicated SME web portal in 2012.

# STANDARDS (continued)



Mark Fielding, ISME, Patricia Callan, SFA, Maurice Buckley NSAI at the launch of Your Standards Your Say

#### Education

It has been a long held view of NSAI that development and adoption of standards can only be achieved through raising public and business awareness. The incorporation of standardization within the education curriculum is therefore essential and, in this context, 2011 saw the continuation of a sustained programme of working closely with third level colleges in Ireland. This introduces standards and their benefits to the business decision makers of tomorrow. The goal is to stimulate an interest in, and understanding of, standards from the very beginning. During the year, NSAI advanced these objectives by introducing the 'National Standards Database' to DIT and NUIG, as well as facilitating lectures for students on the role of standards in their particular sector of interest.

#### Supporting Emergent Technology And Innovative Sectors

While the construction sector has suffered a significant reduction in activity, it has been identified by the EU as a "Lead Market" where sustainable construction and innovation can be leveraged to best advantage for companies in this sector.

2011 saw Ireland's membership of CENELEC and IEC transferred from the Electro-Technical Council of Ireland (ETCI) to NSAI. The modern convergence of technology is such that electro-technical skills and standards are no longer completely distinct from non-electro-technical standards. Standards officers involved in developing standards can now work more effectively across Ireland's industrial base with experts sharing closely related skill sets, enabling them to develop standards seamlessly for either ISO or IEC and CEN or CENELEC. A good example of this is in the medical device field.

NSAI welcomed the transfer of membership as an appropriate measure for its role as the national standards body in all fields of standardization. This transfer will ensure the excellent work of ETCI continues into the future while maintaining ready access to standardization for all ETCI's stakeholders.

### SUPPORTING SUSTAINABILITY

### I.S. EN ISO 50001 Energy Management Standard

Worldwide energy consumption is expected to grow by over 50% between 2010 and 2035. At a time of rising energy prices, increasing national environmental obligations and growing energy security concerns, this highlights the necessity for organisations to manage their energy performance as efficiently as possible.

During 2011, NSAI launched a new energy management standard, I.S. EN ISO 50001, that continued Ireland's reputation as a world leader in Energy Management Systems (EnMS). This follows on from the development of an Irish energy management standard (I.S. 393) in 2005, in co-operation with the SEAI, which was subsequently adopted for use as a European standard (I.S.EN 16001).

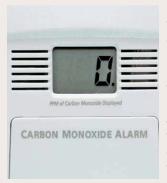
This new international standard replaces I.S. EN 16001, and focuses on energy management and conservation in business. It took three years to develop and involved the co-operation of standards agencies from around the world. This included NSAI's Energy Standards Consultative Committee (consisting of representatives from SEAI, Government Departments and industry experts), which participated in all stages of the development process, demonstrated its experience and positive influence in this emerging standard, and managed the input from Irish industry and Government Departments and Agencies.

Energy efficiency plays a key role in meeting Ireland's sustainable energy targets and the country has the highest percentage take up in the world for energy management standard usage. Over 50% of large Irish based companies apply such standards and these companies have achieved energy savings of €100 million since adopting structured energy management approaches. During 2012, NSAI will seek to maximise the business and market development opportunities for Ireland through the promotion of ISO 50001.

### Irish Standard I.S. 441 National Compost Quality

The Irish Standard I.S. 441 National Compost Quality was launched in 2011, and was developed by a Working Group established under NSAI's Environmental Standards Consultative Committee. The standard promotes the development of the composting industry, creates markets for compost and provides purchasing guidance for consumers and businesses. It is aimed at helping Ireland achieve its EU Landfill Directive targets by diverting organic waste from landfill, thus ensuring that there are outlets, including high value markets, for compost products made from the diverted materials. According to InterTradeIreland, the sector has the potential to employ up to 1,450 people directly.

# PROFILE - PUBLICATION OF A CARBON MONOXIDE ALARMS SWIFT



Carbon Monoxide (CO) alarms for use in domestic dwellings are covered by the European Standard I.S. EN 50291-1:2010. One of NSAI's Consultative Committees, the Gas Technical Standards Committee (GTSC), identified a number of deficiencies in the European Standard, which could not guarantee conclusively the quality and reliability of CO alarms.

Carbon Monoxide Alarm

In 2011, NSAI undertook the task of revising this European Standard. In order to bridge the time gap for the publication and implementation of a revised I.S. EN 50291-1, the Commission for Energy Regulation (CER) proposed that NSAI develop a document that could be utilised until the revised European Standard was ready. A SWiFT was selected as the ideal mechanism.

SWiFT 8:2011 - Specific requirements for electrical apparatus for the detection of Carbon Monoxide (CO) in domestic premises was published in July 2011. It incorporated the following specific requirements for CO alarms:

- CO alarms are fully compliant with I.S. EN 50291-1;
- CO alarms are fitted with an end-of-life indicator;
- The CO alarm manufacturer has voluntarily incorporated an ongoing certification regime requiring sample testing of CO alarms.

The intention is that SWiFT 8:2011 will be used as a purchasing specification by importers of CO alarms into Ireland. SWiFT 8:2011 has already been used by Bord Gáis Networks. Purchased alarms are supplied to Registered Gas Installers (RGI) when they complete a training course on Carbon Monoxide awareness. The alarms are then installed as part of gas appliance servicing and gas installations.

It is anticipated that the Building Regulations, Part J, Technical Guidance Document (TGD), Heat Producing Appliances will incorporate the requirements of SWiFT 8:2011 directly into the next revision of the TGD for the installation of CO alarms in domestic dwellings.

NSAI continued to inform the public that the annual maintenance and servicing of fossil fuel burning appliances, chimneys and flues reduces the risk of Carbon Monoxide in the home. The installation of CO alarms is recommended but is not a substitute for proper appliance servicing and maintenance.

# 2011 AT A GLANCE

### **1. OPEN MARKET INFRASTRUCTURE**

- 52% increase in business participation in international standardization
- 1,986 standards documents published bringing the Irish stock of standards to over 23,000
- Over 12,000 standards sold
- Operated over 50 Standards Consultative Committees with in excess of 1,500 experts

### 2. ENHANCED BUSINESS PERFORMANCE

• 2 SWiFTs published

### 3. FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

- Launch of the Your Standards Your Say portal enabling Irish companies to comment and influence the direction of standards
- DIT and NUIG become the first Irish third level institutions to adopt the National Standards Database. More to follow in 2012
- Transfer of Irish membership of CEN and CENELEC from ETCI to NSAI

### 4. SUPPORTING SUSTAINABILITY

- I.S. EN ISO 50001 published in 2011, superseding I.S. EN 16001. Both standards have their origins in the Irish Standard, I.S. 393
- I.S. 441 National Compost standard published

# CERTIFICATION

THE CERTIFICATION FUNCTION PROVIDES AUDIT AND INDEPENDENT VERIFICATION TO ENSURE THAT AN ORGANISATION COMPLIES WITH THE REQUISITE STANDARDS AND REQUIREMENTS FOR ITS MARKET.

NSAI's certification schemes set out essential requirements for practical and effective management systems which minimise risk and maximise opportunities for Irish business.

Internationally recognised standards are a primary mechanism for overcoming technical barriers to global trade. The application of these standards falls into three main categories: voluntary, standards that underpin regulation (but are still voluntary) and standards called up in regulation which are mandatory. The certification function provides audit and independent verification to ensure that an organisation complies with the requisite standards and requirements for its market. Not only does this certification activity present the organisation with a competitive advantage in tender and procurement decisions, but it also gives confidence to the organisation's procurers and end users of compliance with recognised standards (ranging from business management systems to product approvals).

Reflecting the diversity of standards published and industry requirements in the Irish economy, NSAI offers certification in the following areas:

#### • Management Systems

NSAI's certification schemes set out essential requirements for practical and effective management systems which minimise risk and maximise opportunities for Irish business. Worldwide the most widely implemented management schemes are the ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, OHSAS 18001 Occupational Health and Safety Management, ISO 22000 Food Safety Management Systems and the I.S. EN 16001/ I.S. EN ISO 50001 Energy Management Systems. By their nature these schemes are accessible and adaptable to any business sector regardless of complexity or size.

During 2011, as an accredited certification body, NSAI continued to develop certification services to address the requirements of business ranging from indigenous SMEs to large multinational corporations.

#### • Product Certification and CE Marking

Product certification and CE marking is the process of certifying that a product has passed performance, safety and quality assurance tests and meets the criteria specified in regulations or product specifications.

CE marking provides Irish indigenous and multinational companies with immediate access to European and world markets which, in turn, create further employment opportunities. The European Union requires Member States, to appoint Notified Bodies, to work with organisations to assess whether a product meets the requisite standards under the specific directive. NSAI is the national Notified Body for ten EU Directives, ranging from construction products to active implantable medical devices.

NSAI has certified/registered over 3,000 companies worldwide (with in excess of 10,000 certificates issued), across a broad range of sectors, including areas that are central to national recovery, such as the Medical Devices industry.

### **CERTIFICATION – THE YEAR IN REVIEW**

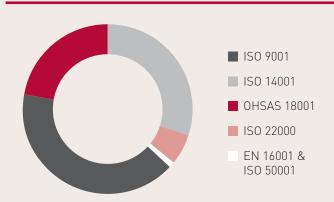
#### Stable Certification Market

Despite a volatile market, where many indigenous companies have retrenched, NSAI Certification has remained stable with over 400 new registrations in 2011. Among the main management systems standards, certification in ISO 14001 and ISO 22000 increased, while ISO 9001 remained steady. The increase in ISO 14001 certifications occurred due to the growing pressures on organisations to reduce their environmental impact. Despite the economic downturn, the Irish food industry is growing, resulting in an increase in certifications such as ISO 22000. Elsewhere, the numbers certified to OHSAS 18001 decreased during the year, mainly due to the downturn in the construction sector and the existing high level of certification in this area.

# CERTIFICATION (continued)

Fig. 1 below shows the profile of certification during 2011, with some organisations holding certificates to more than one standard. ISO 9001 remains the predominant management system, with a 41% share of the new certifications issued during 2011.

# Fig. 1. 2011 New Management Systems Certification by Percentage



A pattern has emerged that shows organisations opt initially for ISO 9001, before seeking certification to other management schemes.

Fig. 2 below shows the increase in certification to ISO 9001 and ISO 14001 in Ireland between 2004 and 2010. Despite the obvious growth in certifications there is still room for improvement in ISO 9001 and significant opportunities for Irish business to capitalise on ISO 14001.

# Fig. 2. ISO 9001 and ISO 14001 Certificates in Ireland 2004-2010 from the 2010 Annual ISO Survey



### **OPEN MARKET INFRASTRUCTURE**

#### Vehicle Safety for our Roads

Throughout 2011, NSAI continued to work with the Road Safety Authority, to implement schemes that enhance the safety and environmental aspects of vehicles. Under EU Directive 2007/46/EC, vehicles are type approved for sale, registration and entry into service across Ireland and all Member States. This approval process has expanded in recent years to cover a wider range of vehicles, and NSAI has put in place the relevant Irish requirements to ensure that the Directive is phased in over a number of years. This will positively affect road users and Irish road safety.

In order to satisfy these requirements the number of Approved Test Centres (ATCs) continued to grow, rising from 10 to 16. Centres undertake testing for vehicle approvals and issue test reports, but NSAI remains the sole authority to grant National Vehicle Approvals in Ireland.

In 2011, NSAI issued over 2,000 motor vehicle approvals for vehicles and their components and systems, covering areas such as emissions, engine power, tyres and seat belts.

#### New Food Safety Systems Certification (FSSC)

In 2011, NSAI Certification began offering Food Safety Systems Certification based on the international standards ISO 22000 Food Management Systems, and ISO TS 22002-1 Prerequisite Programmes on Food Safety. FSSC Certification enables Irish food and drink manufacturers to access international markets as it is recognised under the international Global Food Safety Initiative (GFSI). The GFSI aims to ensure confidence in the delivery of safe food worldwide and, NSAI has certified six companies to the FSSC scheme.

### ENHANCED BUSINESS PERFORMANCE

#### Progress in Corporate Governance

With the increased focus and commitment to the corporate governance agenda, 2011 saw Sustainable Energy Authority of Ireland (SEAI) become the first organisation in Ireland certified to SWiFT 3000: Code of Practice for Corporate Governance Assessment in Ireland. This certification is the first of its kind in Europe, and shows that Ireland is prepared to lead the corporate governance agenda. The status of this SWiFT was enhanced further by observations of the Comptroller and Auditor General in his Annual Report for 2009, in respect of State bodies' demonstration of good governance.

#### Paving the way for Excellence Through People

Preparatory work for the transfer of The Excellence Through People (ETP) Human Resources Management Scheme from FÁS to NSAI, in 2012, was completed during 2011, with a HR expert group put in place to review the existing standard. ETP has been used by over 800 companies since 1996, and it is Ireland's only national human resources management specification dedicated to the impact that people have on business. The Scheme will be refined in order to align the audit process to other management systems, such as ISO 9001, and to move to an annual audit as part of a three year registration cycle, which is considered best practice. The transfer of ETP will enhance NSAI's current offering of management system schemes as ETP recognises the importance of staff in enhancing Irish companies' competitiveness.

#### World's First PS 9001 Certification

In 2011, Dublin-based Clondalkin Pharma and Healthcare, became the first organisation in the world to be certified to the revised 2011 PS 9000 Pharmaceutical Packaging Materials standard. This is a quality management systems (QMS) standard for suppliers of packaging materials to the pharmaceutical industry and specifies the Good Manufacturing Practices (GMP) that the pharmaceutical industry requires from its packaging suppliers. Clondalkin Pharma and Healthcare were also highly proactive in the development of the Standard during the drafting stages.

#### Quality for the Public Service

The OECD's 2008 report, Public Management Review: Ireland – Towards an Integrated Public Service, encapsulates NSAI's efforts to encourage Irish public and private sector organisations to adopt ISO 9001.

During 2011, the Road Safety Authority (RSA) became the first public body to achieve all three of the traditional Management Systems certifications, namely: ISO 9001 Quality Management Systems, ISO 14001 Environmental Management Systems, and OHSAS 18001 Health and Safety Management Systems. The adoption of these international standards by RSA is an encouraging development for the public sector and an acknowledgement that standards have a direct and positive impact on an organisation's business performance, whether public or private sector. It is anticipated that others will seek to replicate this achievement in the future as organisations focus on efficiency and effectiveness in the current economic environment.

#### Recognising Achievements through Certificate Presentations

Over 400 companies achieved certification during 2011. These included both those which were being certified for the first time and those adding to their existing management systems. To mark these achievements, NSAI organised two group presentations where the Minister for Small Business, John Perry, T.D. presented the certificates. These certificates were to standards such as ISO 9001, and the majority were presented to SMEs across manufacturing, technology, engineering, transport and construction. This demonstrates SME's continued focus on standards, and our efforts to encourage the sector to enhance their management systems by using international management standards such as ISO 9001.



Pictured with the Minister for Small Business, John Perry T.D. are over 20 companies who received their certificates at the May 2011 Group Certificate Presentation event.

Among the certifications presented during 2011 was Ireland's leading coffee and tea company, Bewley's. It became the first organisation to be certified by NSAI for the quantification and reporting of its greenhouse gas emissions and removals (ISO 14064-1:2006: Greenhouse Gases). Bewley's implemented major environmental sustainability initiatives to eliminate over 3,500 tonnes of  $CO_2$  from the atmosphere each year. This has been achieved through carbon reduction, renewable energy usage and certified carbon offsetting. The company is also ISO 14001 Environmental Management Systems certified.



Jim Corbett, MD, Bewleys, John Perry T.D., Minister for Small Business and Maurice Buckley pictured at the Group Certificate Presentations where Bewleys received the first Greenhouse Gases certificate issued by NSAI

# CERTIFICATION (continued)

# FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

World Class Certification for the Medical Devices Industry The medical device sector is one of the largest growth areas in the Irish economy. As the Irish Notified Body for Medical Devices, designated by the Irish Medicines Board, NSAI plays a key role in facilitating the growth of an industry that supports multinational manufacturers and indigenous companies. The industry is highly regulated to ensure the safe performance of each device and Regulators depend on published international standards to define the detail that products must comply with, in order to satisfy their essential safety principles.

For these manufacturers to remain competitive on the world stage they require a world-class certification service. By working closely with the manufacturers, NSAI ensures that their quality management systems and medical device products are in compliance with the European Medical Devices Directives and other international regulations. NSAI cultivates this relationship further by offering regulatory guidance meetings and training, where manufacturers are helped to understand the relevant regulations and how to navigate through the regulatory process for CE Mark approval of medical devices. These help to expedite time-to-market, which is essential for both indigenous and multinational medical device companies in Ireland.

Medical device CE Mark training was also provided in 2011, to both high potential start-up companies in Ireland, and on-campus university companies. This was a further step underpinning Ireland's position as a global centre of excellence for medical device certification.

#### Raising the Bar for Medical Device Regulations

The global DePuy metal on metal hip implant incident of 2010, and the recent P.I.P (Poly Implant Prothése) breast implant incident discovered in France, highlighted the need for a vigorous review of the medical devices placed on the European Market. As the Irish Notified Body for Medical Devices, NSAI continues to enhance its core competencies to ensure that NSAI reduces the risk of similar incidents occurring in the future.

In December 2011, a Medical Devices Seminar: 'Navigating Today's Regulatory Challenges' brought together NSAI experts and professionals in the Medical Devices industry. It focused on a number of core areas, including:

- The transition period to comply with I.S. EN 60601-1:2005 Medical Electrical Equipment Standard, which ends 1 June 2012.
- Changes to Clinical Assessment Standards and the importance of the Medical Device industry's input into the development of standards.
- How best to prepare clinical data in a clinical evaluation report, given the recent changes in the Medical Device Directive.

The seminar was chaired by NSAI and included presentations by experts in their fields. The seminar which was attended by over 50 medical device decision makers from leading Irish and multinational companies also provided a platform for networking among the industry specialists.

#### 'CE Marking Makes European Market Yours'

In 2011, NSAI held a CE Marking seminar, sponsored by the EU Commission, as part of the 'CE Marking Makes European Market Yours' information campaign. CE Marking ensures the free movement within the European market of products and it is a key indicator of a product's compliance with legislation. The seminar aimed to promote a better understanding by Irish industry of the meaning behind CE marking and the purpose of its use, as well as providing an overview of specific European Directives and how these impact on business. In addition, the General Product Safety Directive was discussed to inform the audience of over 60 decision makers of their legal obligations when sending a product to market.

### SUPPORTING SUSTAINABILITY

#### Managing Energy for the 21st Century

The CEN/CENELEC Sector forum on Energy Management profiles Ireland as a leading country in energy management certifications. In 2009, Irish-based companies were among the first to implement the new I.S. EN 16001 standard in Europe. With the publication of I.S. EN ISO 50001, in September 2011, NSAI prepared a transition policy to enable those companies already I.S. EN 16001 certified, to transfer from the European standard to the international standard. NSAI also published a summary of the changes between the two standards and will further promote the use of the standard to Irish companies in 2012.

#### Sustainability Initiatives

NSAI's sustainability initiatives continued to be developed in 2011, and this was particularly evident in the construction sector. NSAI plays a key role in bringing innovative green building technology solutions to the market, with an assurance of 'fitness for purpose'. The sustainability initiatives by NSAI became even more vital with SEAI's introduction of Better Energy: the National Upgrade Programme in May 2011.

NSAI is well placed to promote such developments, enabling Irish enterprise to explore the opportunities for environmental goods, services and energy management on a global level. Such developments included:

• NSAI introduced schemes for registered external insulation installers, which have increased consumer confidence in carbon-reducing upgrades. There has been a significant uptake in interest, with over 200 external wall insulation and 60 cavity wall insulation applications in 2011.

- The independent WEP (Window Energy Performance) certification scheme was launched by NSAI in 2010. There are now approximately 90 windows types covered by the scheme and window manufacturers are becoming increasingly involved. During 2011, the scheme delivered further growth, with over 30 companies applying for inclusion, and it is expected to grow rapidly in the years ahead due to changes in the building regulations and competition from overseas manufacturers. It is anticipated that these energy ratings will be used in the mandatory BER rating scheme for properties.
- NSAI has also continued its work in the area of solar panel certification, by working with solar manufacturers and agents to certify their products. Six solar panel models have been certified to date.

### **PROFILE - CORPORATE AND SOCIAL RESPONSIBILITY**

The move towards developing Corporate and Social Responsibility (CSR) took a step forward in 2011, as Business in the Community Ireland (BITC) launched the Business Working Responsibly mark. Where the activities of organisations are coming under increasing scrutiny by different stakeholders it has never been more important to integrate Social Responsibility (SR) practices into the everyday practices and decisions of these organisations. In support of this initiative, NSAI became the third party verification partner for the scheme. The benefits of implementing SR are identified as:

- enhanced reputation
- contribution to sustainability
- cost savings
- competitive advantage

There is no single correct method of implementing SR, but with the publication of ISO 26000 Guidance on Social Responsibility, in November 2010, an internationally agreed standard has been introduced. This significant development will help organisations adopt best practices in Corporate Social Responsibility. Just as Ireland was an early mover in the adoption of ISO 9001, in the 1990s, so CSR may present further opportunities to gain first mover advantage in an increasingly important area. Guidance on Social Responsibility (ISO 26000) and Corporate Governance (SWiFT 3000) can play a significant role in rebuilding Ireland's corporate reputation.

# 2011 AT A GLANCE

### OPEN MARKET INFRASTRUCTURE

- Growth in ISO 14001 and ISO 22000 certification
- Increase in the number of Vehicle Approved Test Centres (ATCs) to 16
- Over 2000 motor vehicle approvals issued
- Introduction of Food Safety Systems Certification

#### ENHANCED BUSINESS PERFORMANCE

- SEAI become the first organisation certified to SWiFT 3000: Code of Practice for Corporate Governance Assessment in Ireland
- Preparatory work completed for the transfer to NSAI of the Excellence Through People scheme
- Clondalkin Pharma and Healthcare become the first company certified to PS 9000:2011 Pharmaceutical Packaging Materials standard
- RSA become the first public body certified to all three traditional management system standards, ISO 9001, ISO 14001 and OHSAS 18001
- 400 new registrations in 2011
- Launch of BITC's Business Working Responsibility mark with NSAI becoming the independent verification partner

# FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

• Over 100 delegates attended CE Marking and Medical Devices seminars

### SUPPORTING SUSTAINABILITY

- Processed 200 External Wall Insulation applications
- Processed 60 Cavity Wall Insulation applications
- Processed 30 companies applied for Window Energy Performance scheme



L to right: Brendan Halligan, Chair, SEAI, Maurice Buckley, Chief Executive, NSAI, John Perry T.D., Minister for Small Business, Ann Riordan, Chairman, NSAI, Prof. Owen Lewis, CEO, SEAI at the announcement of Sustainable Energy Authority of Ireland (SEAI) becoming the first organisation in Ireland, to be certified to the SWiFT 3000

# METROLOGY

CONFIDENCE IS CRUCIAL TO THE ECONOMIC TRADING INFRASTRUCTURE. TO THAT END, TRUST IN THE IRISH MEASUREMENT SYSTEM PLAYS A KEY ROLE BOTH DOMESTICALLY AND INTERNATIONALLY. The Legal Metrology Service (LMS) is the enforcement operation that regulates measurements in trade use. The Metrology Acts 1980-1998, which underpin the work of LMS, contain significant protections for consumers and provide for fair and equitable trading conditions for businesses. LMS also performs an international role in representing Irish business and consumers on matters of legal metrology at national, European and international level.

Confidence is crucial to the economic trading infrastructure. To that end, trust in the Irish measurement system plays a key role both domestically and internationally. Through a database of approximately 35,000 traders and businesses, which are responsible for nearly 65,000 measuring instruments (excluding intoxicating liquor measures), LMS conducts its activities to uphold compliance and reinforce this confidence.

The legislative remit extends to setting and implementing controls for measuring instruments used to buy and sell directly to the public, or to make up pre-packaged products sold by quantity. Examples of regulated measuring instruments include retail weighing scales used in shops and supermarkets, large industrial weighing instruments such as vehicle weighbridges and equipment for weighing animals at marts, forecourt dispensers for petrol and diesel, road tanker systems for home heating oil, milk meters used by agricultural co-ops, taximeters and capacity measures used to dispense and serve alcohol in licensed premises. Owners of such instruments are responsible for ensuring that their instruments are working correctly and are verified at all times. Producers of pre-packages must also use appropriate packing, sampling and recording systems. An instrument owner or packer who fails or neglects to comply with metrology legislation may be prosecuted.

Through a database of approximately 35,000 traders and businesses, which are responsible for nearly 65,000 measuring instruments, LMS conducts its activities to uphold compliance and reinforce this confidence.

The controls for measuring instruments are conducted across three levels: Conformity Assessment, Verification in Use, and Inspection.

- Conformity Assessment: This is carried out in two stages; type approval, which is the process undertaken to confirm that the design of a measuring instrument complies with legal requirements; and verification of the individual instrument. Products covered by European CE marking Directives 2009/23/ EC on non-automatic weighing instruments and 2004/22/ EC on measuring instruments can avail of a European type approval and manufacturers may also carry out verification through use of their own approved quality management system. Where a manufacturer does not operate an approved quality management system LMS remains a notified body for EC verification and can carry out this work on request from the manufacturer. Products that are not covered by the European Directives must be submitted to LMS for national type approval and verification.
- Verification in use: When an instrument already in use is repaired or adjusted it must be re-verified before it can be used again for trade purposes. This verification can be carried out by a metrology inspector or a person working under the NSAI's authorised verifier scheme.
- Inspection: A trade measuring instrument can be checked over its lifetime by a metrology inspector to confirm that it continues to comply with legal requirements. Through its field-based inspectorate LMS operates in-situ inspection of instruments used for buying and selling by measure throughout the economy and the records and procedures of packers who make up products in closed packages by weight or measure to be put on store shelves for direct sale to the consumer.

LMS also calibrates trade measures up to 1000 litre capacity used by companies involved in testing and calibrating fuel dispensers and flowmeters in trade use.

# METROLOGY (continued)

Year	Main instrument category	Number of companies	Number of authorisations
2008	Taximeter systems	1	1
2000	Weighing instruments	2	2
2009	Weighing instruments	6	19
2010	Weighing instruments	3	6
	Intoxicating liquor measures	1	1
2011	Liquid fuel road tankers	2	2
	Milk meters	1	1
Total		16	32

### Fig. 1 - Expansion of Authorised Verifier Network by Instrument Category and number of companies

### NSAI LMS - THE YEAR IN REVIEW

### OPEN MARKET INFRASTRUCTURE

During 2011, metrology inspectors visited over 5,000 trading premises where they inspected more than 11,000 instruments and verified nearly 4,000 instruments. This included a specific countrywide EC verification programme of 328 point-of-sale retail scales in 82 stores of one large retail supermarket chain. Under NSAI's authorised verifier scheme, third party operators carried out approximately 24,000 verifications of taximeter systems, weighing instruments, liquid fuel road tankers and intoxicating liquor measures.

In the absence of a national calibration provider and as a support to small businesses, the LMS Dublin centre also calibrated 20 industrial volume measures, including eight large vessels of 500 litre capacity used by installers and maintenance companies for calibrating flowmeter systems on road tankers for measurement of milk and liquid fuel. The authorised verifier network, under the supervision of LMS, offers traders an efficient verification service to ensure compliance of their measuring equipment with the regulatory requirements. At the end of 2011, sixteen third-party operators had been authorised (Fig. 1), with a number in the weighing sector authorised for more than one instrument sub-category. While coverage of 80% of instrument categories was achieved early in 2011, a further tendering programme for the scheme was launched in the last quarter of the year; its conclusion in 2012 should result in countrywide availability of an authorised verifier for all but a few niche instrument categories.



Legal Metrology Service Inspector Derek Clarke checks the petrol pumps at a service station

During 2011, metrology inspectors visited over 5,000 trading premises where they inspected more than 11,000 instruments and verified nearly 4,000 instruments.

### **PROFILE - RISK-BASED APPROACH TO ENFORCEMENT**

The risk-based approach to regulatory enforcement undertaken by LMS ensures that front-line inspectorate resources can concentrate on specific authorised trading sectors. This approach is aimed at:

- raising awareness of compliance amongst traders;
- encouraging a compliance culture;
- identifying breaches of legislation in a targeted manner.

LMS's goal was to begin to deliver the benefits of this riskbased strategy by 2011, by finalising the necessary support structures and rolling out front-line actions. This was achieved by prioritising the sectors to be inspected, increasing sign-up by private operators to the authorised verifier scheme and integrating data records from the inspectorate and authorised verifiers to form a comprehensive listing of traders and their measuring instruments.

In 2011, in addition to routine inspections, three targeted inspection campaigns were carried out on licensed premises, livestock marts and liquid fuel providers:

- The licensed premises action focused on the issue of advice to managers and owners on the use of verified (stamped) glasses, optic measures and thimble measures in nearly 200 pubs and hotels
- The livestock marts campaign involved inspection and verification of 98 animal weighbridges in 45 marts in the North East, West and North-West
- The countrywide liquid fuel providers' campaign led to inspection of 443 flowmeter systems and focused on verification compliance advices, which led to a three-fold increase in verification demand by the last guarter of 2011.

In November 2011, LMS took its first prosecution of a retail service station for allowing unverified fuel dispensers to be used for trade and for selling short measure contrary to the provisions of the Metrology Act 1996, and the Legal Metrology (General) Regulations 2008. This successful prosecution underscores the important work conducted by LMS in protecting consumers and supporting compliant business traders. The owners of the service station were fined a total of €14,000 with an additional €5,000 in costs awarded to LMS.

Nationally, inspections throughout the year indicated a high degree of compliance and while improvements could still be made generally, in relation to minor non-compliances, no major concerns were raised. The positive impact of the targeted actions undertaken during 2011 reflected a clear benefit of the risk-based approach to enforcement. This will remain central to LMS's service delivery with more sectors being identified for similar targeted campaigns in 2012.

# 2011 AT A GLANCE

### **OPEN MARKET INFRASTRUCTURE**

- Metrology inspectors visited over 5,000 trading premises, inspected more than 11,000 instruments and verified nearly 4,000 instruments
- Under NSAI's verifier scheme, third party operators carried out 24,000 verifications
- 20 large industrial volume measures calibrated
- Advice given to managers and owners on the use of measures in nearly 200 pubs and hotels
- Inspection and verification of nearly 100 animal weighbridges in 45 marts
- First prosecution taken of a retail service station for being in contradiction of the Metrology Act 1996, and the Legal Metrology (General) Regulations 2008.

# METROLOGY (continued)

Metrology, the science of measurement, underpins every aspect of modern society since commerce, science, government, education and the law all require accurate, reliable and consistent measurement results.

The National Metrology Laboratory (NML) is the national metrology institute for Ireland. It fulfils the legal requirement placed on NSAI under Section 21 of the Metrology Act 1996, to establish, maintain and develop the Irish national measurement standards for physical quantities. These standards constitute the best local reproductions of the units of the international system of units – the SI system – and thus enable Irish industry to access this worldwide measurement system.

Metrology, the science of measurement, underpins every aspect of modern society since commerce, science, government, education and the law all require accurate, reliable and consistent measurement results.

NML maintains measurement standards in the fields of acoustics, electricity, frequency, length, mass, pressure, force, temperature, humidity, and torque. These standards support organisations ranging from SMEs to multinational companies, providing them with access to state-of-the-art measurement facilities, an efficient and responsive calibration service, advice and awareness of measurement issues.

It is widely recognised that a national metrology institute is an essential part of the technical infrastructure of a developed economy. Access to such a national centre of excellence, as provided by the National Metrology Laboratory, is a necessity for manufacturing and service industries, especially those in the technology sectors. This technically competent and internationally recognised metrology infrastructure will continue to be important in demonstrating the suitability of Ireland as a location for high-tech Foreign Direct Investment. While, the reliability of the services provided by Ireland's network of commercial test and calibration laboratories depends upon access to high quality national measurement standards. As such, the availability of local, readily accessible measurement expertise and related services provides an important competitive advantage to industry in Ireland.

### NSAI NML - THE YEAR IN REVIEW

Enhanced Business Performance

With the ever increasing demand for greater precision and accuracy of measurement, it is important that NML's technical knowledge and expertise are used as effectively as possible for Irish industry. Measurement audits provide independent assurance of an organisation's measurement capabilities as well as acting as an ideal mechanism for knowledge transfer between NML and the organisation being audited.

During 2011, NML's Advisory and Audit scheme delivered 14 measurement audits to 10 organisations, ranging from those involved in the validation of climatic chambers used in the storage of blood products to those offering calibration services to the aviation industry. Several of these companies are either already accredited to I.S. EN ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories" or are in the process of seeking this accreditation. The measurement audit reports delivered by NML, and the resultant follow-up advisory sessions, assisted eight of these companies to achieve accreditation or to expand their scope of accreditation.

NSAI's strategic goal was to undertake 20 such audits by 2012. To date, 30 metrology audits have been completed, with 14 in 2011 alone.

In order to provide evidence of its own technical competence, NSAI participates in international measurement intercomparisons, whereby NML's measurement results are compared with other national metrology institutes. During 2011, NML participated in eight such comparisons. The satisfactory results achieved ensure the continued international acceptance of NML's calibration certificates and of the calibration certificates and test reports produced by those who use NML's calibration services.



'Inspecting the National Metre measurement' - Pictured on a visit to NML during Maths Weeks 2011 is Tiarnán McCabe a 5th class student from Scoil Mobhí, Glasnevin, Dublin with Paul Hetherington of NML

# FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

### **Research Activities**

The national measurement standards must not only be maintained in a capable fashion but need to be improved and developed to keep pace with technical developments, regulations and industrial demand. To this end, NML undertakes research and development projects (often in conjunction with third level institutions) aimed at improving the quality and range of its measurement standards and services. These projects have the added benefit of introducing young researchers to measurement science and promoting the use of good measurement practices in research institutions. 2011 proved to be another strong year, with six research projects in operation. This research activity was boosted by the co-operation between NSAI and DIT Kevin Street and DCU.

Some notable development projects undertaken during 2011 were:

- The establishment of a cryogenic temperature calibration facility will be completed in 2012. This successful project culminated in the establishment of a new service in the temperature range to -196°C.
- A comprehensive investigation of measurement techniques, influence factors, and uncertainty of measurement in the temperature mapping of climatic chambers. NML took the lead among national metrology institutes in this research effort and was the principal author of an international guidance document on this subject.

The demand for the traditional calibration services offered by NML, matched 2010 levels with over 4,000 calibration certificates issued.

- The automation of high precision mass calibrations and upgrading of NML's measurement capability to cater for calibration of standard weights of the highest accuracy level. A state-of-the-art robotic system was delivered during 2011, and has been fully tested and will be commissioned in early 2012.
- The development of a nanoscale line scale calibration system is a co-operative research project with the Dublin Institute of Technology and DCU. The objective of this project was to meet the increasing demand from the pharmaceutical and medical device industry for precision dimensional measurements. NML has identified this demand as a key issue for Irish industry and is committed to developing a new system with the required measurement accuracy.

Other research projects which are currently underway are the development of an automated calibration system intended for the calibration of large numbers of cast iron standard weights and the construction of an interferometric length calibration system for high accuracy gauge blocks.

#### Wide Ranging Calibration Services

The demand for the traditional calibration services offered by NML, matched 2010 levels with over 4,000 calibration certificates issued. Some new calibration services and extensions to existing services were brought on stream.

The measurement of sound level is important for work-place noise assessment, environmental noise surveys, nuisance noise measurements, and many other applications. The measuring equipment used must be traceably calibrated in order for the results to be legitimate. In 2011, NML's calibration and measurement capabilities for acoustical measurements were approved under the scheme operated by the International Committee of Weights and Measures. This marked the culmination of a three year programme to develop an acoustical standards and calibration facility in Ireland.

# METROLOGY (continued)

The demand for calibrations of sound measuring equipment is continuing to grow and NML was awarded the contract to calibrate the equipment used in NCT centres to measure exhaust noise in motor vehicles.

Manufacturing and research in the biotechnology field as well as in the medical field has led to a demand for traceable measurement of cryogenic temperatures, particularly at the most commonly used cryogenic temperature of -196°C. NML has responded to this need by developing a calibration capability at this temperature. This new capability is unique in Ireland and will serve to meet future measurement needs in this demanding sector.

Dimensional length measurement using pin gauges plays a critical role during the manufacture and inspection of many medical devices. The ability to calibrate high accuracy pin gauges (Class X, XX & XXX) accurately is of vital importance to the medical device industry in Ireland. These high-precision pin gauges reflect the critical standards used to validate the internal diameter for a range of medical device applications such as stents. Due to demands from industry, NML completed a research programme to improve and characterise its pin gauge calibration facility. The successful outcome of this programme was supported by NML's participation in an international comparison project in high-accuracy pin gauge calibration with a number of European National Metrology Institutes, including the National Physical Laboratory (NPL) in the UK, and METAS, Switzerland.

The results from this international comparison ensured international acceptance of NML's calibration capabilities in this area and also gave confidence to the medical device industries, which use NML to calibrate their measurement standards. The results from this international comparison ensured international acceptance of NML's calibration capabilities in this area and also gave confidence to the medical device industries, which use NML to calibrate their measurement standards.

NML continued its research & development work to optimise and standardize the calibration techniques for climatic chamber calibration. The research focused on investigating the measurement factors that can influence the calibration of these chambers and contribute to the uncertainty of the calibration. Factors such as loading effects, probe response, hysteresis and radiation effects were evaluated in the study. The objective of the work is to produce a clear guidance document on the calibration of chambers and the parameters to include when budgeting. The accurate and traceable calibration of climatic chambers is critical to the performance of units in medical research and clinical testing fields. The work undertaken by NML contributed to the development of a European Guidance document in this area.

# PROFILE - WORLD CLASS MASS CALIBRATION SYSTEM ON ITS WAY

A new robotic mass calibration system was delivered to NML in 2011, and installed in the E2 Mass Laboratory. NML worked very closely with the manufacturer to test and validate the system to ensure that it was capable of meeting NML's demanding technical specifications and reduced calibration lead-times.

This is a unique system as it provides for the calibration of Class E1 and E2 precision mass standards, over the range 1mg to 1kg, using one weighing system. This new and fully automated calibration system will replace the traditional manual approach to calibrating E2 weights, giving a 150% capacity increase and a reduction in calibration lead-time (from 21 days to less than 10 days). The additional capacity increase and improved efficiency is due to robotic control of the calibration procedure. In turn, this system will lead to cost savings for industry on their annual calibration costs, as well as enhancing customer satisfaction with NML's mass calibration service.

The system will be commissioned in early 2012, and it will greatly improve the quality, accuracy and response time for mass calibration in Ireland. In addition, it will expand the E2 calibration capacity for Irish industry, global multinational organisations and Government departments. This new system will also give the NML the opportunity to extend their calibration capability into E1 class calibration, opening up new markets for NML in Ireland, Northern Ireland and overseas.

# 2011 AT A GLANCE

### ENHANCED BUSINESS PERFORMANCE

- Delivered 14 measurement audits to 10 organisations
- Participated in 8 international measurement intercomparisons
- Installation of a new robotic mass calibration system, 'Sartorius', that will increase capacity by 150% and reduce calibration costs to industry

# FOSTERING THE INNOVATION AND KNOWLEDGE ECONOMY

- 6 research projects were in operation which boosted the cooperation between NSAI and DIT Kevin Street and DCU
- Over 4,000 traditional calibration certificates issued
- Contract awarded to calibrate the equipment used in NCT centres to measure exhaust noise in motor vehicles
- NML developed a calibration capability to the cryogenic temperature of -196 °C
- Research & Development in climatic chamber calibration contributed to the development of a European Guidance document

# CORPORATE GOVERNANCE



In addition to the governing legislation, NSAI complies with a wide range of statutory and administrative requirements.

In addition to the governing legislation, NSAI is also required to comply with a range of statutory (National and EU) and administrative requirements. In particular it has put in place the procedures to ensure compliance with the following specific requirements:

#### Code of Practice for the Governance of State Bodies

The Board has adopted the Code of Practice for the Governance of State Bodies and the provisions of the Code are being implemented.

#### Ethics in Public Office

The provisions of the Ethics in Public Office Act 1995 and Standards in Public Office Act 2001 have been implemented. Board members and staff members holding designated positions furnish statements of interests to the Secretary.

#### Freedom of Information

NSAI is a prescribed organisation under the Freedom of Information Acts 1997 and 2003. In addition, the Data Protection Acts 1988 and 2003 also apply to NSAI.

#### Equality

NSAI is committed to a policy of equal opportunity and adopts a positive approach to equality in the organisation. A policy on Dignity at Work is in operation and has been communicated to all staff.

#### Safety Health and Welfare at Work

NSAI is implementing the provisions of the Safety, Health and Welfare at Work legislation, including the preparation of an Operations Safety Statement embracing all matters affecting safety, health and welfare of staff and visitors to NSAI's premises.

#### Energy Efficiency and Conservation

NSAI is committed to taking every effort possible to be energy efficient and to operate conservation and recycling measures. Most of our energy consumption relates to heat, light and power to our office buildings. The Authority participates in framework agreements for the supply of electricity and gas procured centrally by the National Procurement Service.

#### **Prompt Payments**

In accordance with the provisions of Prompt Payment of Accounts Act 1997 as amended by the European Communities (Late Payments in Commercial Transactions) Regulations 2002, NSAI is committed to ensuring that all suppliers are paid promptly.

#### **Official Languages**

NSAI comes under the remit of the Official Languages Act 2003. In accordance with Section 10 of the Act, this Annual Report is published in Irish and English.

#### Composition of the Board

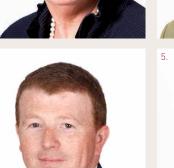
Details of members of the Board of NSAI are set out on page 30.

# **BOARD MEMBERS**

2.



4.

























- 1. Ann Riordan, Chairman
- 2. James Collins
- 3. Damian Wallace
- Kieran Ryan 4.
- 5. Mary Ita Walsh
- 6. David Gargan
- Edmond Stack 7.
- 8. Jennifer Murnane O'Connor
- 9. Richard Hadfield
- 10. Des O'Loughlin
- 11. Eddie Wade
- 12. Helen Curley 13. Maurice Buckley, Chief Executive



# FINANCIAL STATEMENTS

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# STATEMENT OF BOARD MEMBERS' RESPONSIBILITIES

For 2011 Annual Financial Statements

Paragraph 8(2) of the First Schedule to the National Standards Authority of Ireland Act, 1996 requires the Authority to keep, in such form as may be approved of by the Minister for Jobs, Enterprise and Innovation, with the consent of the Minister for Finance, all proper and usual accounts of money received and expended by it and, in particular, to keep in such form as aforesaid all special accounts as the Minister for Jobs, Enterprise and Innovation may from time to time direct. In preparing those accounts, the Authority is required to:

- select suitable accounting policies and apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- disclose and explain any material departures from applicable accounting standards;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Authority will continue in operation.

The Board is responsible for keeping proper books of account which disclose with reasonable accuracy at any time its financial position and which enable it to ensure that the Financial Statements comply with Paragraph 8 of the First Schedule to the National Standards Authority of Ireland Act, 1996. The Board is also responsible for safeguarding its assets and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

On behalf of the Board:

Ann Riordan Chairman

Marsra Frekky

Maurice Buckley Chief Executive Officer

# STATEMENT ON INTERNAL FINANCIAL CONTROL

On behalf of the Board of NSAI I acknowledge our responsibility for ensuring that an effective system of internal financial control is maintained and operated in the Authority.

The system can only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded and that material errors or irregularities are either prevented or would be detected in a timely period.

The Board has taken steps to ensure an appropriate control environment is in place by:

- Establishing formal procedures for monitoring the activities and safeguarding the assets of the organisation;
- Clearly defining management responsibilities and powers;
- Developing a culture of accountability across all levels of the organisation.

The Board has established processes to identify and evaluate business risks by:

- Operating a formal risk management process. This process considers the primary risks facing the Authority in the discharge of its function and achievement of overall objectives.
- Management is responsible for the identification and evaluation of significant risks and for the design and implementation of appropriate internal controls.
- Management reports to the Board on significant changes in the operations of the Authority and their associated risks.

The system of internal financial control is based on a framework of regular management information, administration procedures including segregation of duties, and a system of delegation and accountability. In particular it includes:

- Clearly defined authorisation limits, segregation of duties and the controls available from its financial systems. This system is overseen by the Audit Committee which engages suitable external agencies to examine and test this system
- The operation of a system of budgetary control against which actual performance is compared throughout the year. Financial results are reported to the Board with variance against budget interrogated.
- Board approval is required for all key payment authorities and banking mandates.
- The Audit Committee, a sub-committee of the Board, approves internal audit plans and deals with significant control issues raised by the internal or external auditors. This Committee ensures that the work done by the internal audit function is focussed on areas of greatest risk or exposure.

NSAI has an outsourced internal audit function, which operates in accordance with the Framework Code of Best Practice set out in the Code of Practice on the Governance of State Bodies and which reports directly to the Audit Committee. The work of internal audit is informed by analysis of the risk to which the body is exposed, and annual internal audit plans are based on this analysis. The analysis of risk and the internal audit plans are endorsed by the Audit Committee. The Audit Committee meets on a regular basis throughout the year to review and confirm the ongoing adequacy and effectiveness of the system of Internal Financial Control.

The Board's monitoring and review of the effectiveness of the system of internal financial control is informed by the work of the Internal Auditor, the Audit Committee which oversees the work of the Internal Auditor and the executive managers within NSAI who have responsibility for the development and maintenance of the financial control framework.

I confirm that in respect of the year to 31 December 2011, the Board conducted a review of the effectiveness of the system of internal financial controls.

**Ann Riordan** Chairman

# REPORT OF THE COMPTROLLER AND AUDITOR GENERAL



# **Comptroller and Auditor General**

### Report for presentation to the Houses of the Oireachtas

### National Standards Authority of Ireland

I have audited the financial statements of the National Standards Authority of Ireland for the year ended 31 December 2011 under the National Standards Authority of Ireland Act 1996. The financial statements, which have been prepared under the accounting policies set out therein, comprise the Accounting Policies, the Consolidated Income and Expenditure Account, the Statement of Consolidated Total Recognised Gains and Losses, the Consolidated Balance Sheet, the Consolidated Cash Flow Statement and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and Generally Accepted Accounting Practice in Ireland.

### Responsibilities of the Members of the Authority

The Authority is responsible for the preparation of the financial statements, for ensuring that they give a true and fair view of the state of the Authority's affairs and of its income and expenditure, and for ensuring the regularity of transactions. Responsibilities of the Comptroller and Auditor General

My responsibility is to audit the financial statements and report on them in accordance with applicable law. My audit is conducted by reference to the special considerations which attach to State bodies in relation to their management and operation.

My audit is carried out in accordance with the International Standards on Auditing (UK and Ireland) and in compliance with the Auditing Practices Board's Ethical Standards for Auditors.

### Scope of Audit of the Financial Statements

An audit involves obtaining evidence about the amounts and disclosures in the financial statements, sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of

- whether the accounting policies are appropriate to the Authority's circumstances, and have been consistently applied and adequately disclosed
- the reasonableness of significant accounting estimates made in the preparation of the financial statements, and
- the overall presentation of the financial statements.

I also seek to obtain evidence about the regularity of financial transactions in the course of audit.

In addition, I read all the financial and non-financial information in the annual report to identify material inconsistencies with the audited financial statements. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my report.

### **Deferred Pension Funding**

Without qualifying my opinion I draw attention to note 12 (c) to the financial statements. The Authority recognises an asset in respect of deferred pension funding – the current value of the funding it anticipates will be provided in the future by the State to meet pension liabilities as they fall due. Inherent in this accounting treatment is an assumption that any income generated by the Authority will in the first instance be applied towards current expenses and that State funding will meet any current or future shortfall in resources including future pension liabilities.

### **Opinion on the Financial Statements**

In my opinion, the financial statements, which have been properly prepared in accordance with Generally Accepted Accounting Practice in Ireland, give a true and fair view of the state of the Authority's affairs at 31 December 2011 and of its income and expenditure for the year then ended.

In my opinion, proper books of account have been kept by Authority. The financial statements are in agreement with the books of account.

### Matters on which I Report by Exception

I report by exception if

- I have not received all the information and explanations I required for my audit, or
- my audit noted any material instance where moneys have not been applied for the purposes intended or where the transactions did not conform to the authorities governing them, or
- the information given in the Authority's Annual Report for the year for which the financial statements are prepared is not consistent with the financial statements, or
- the Statement on Internal Financial Control does not reflect the Authority's compliance with the Code of Practice for the Governance of State Bodies, or
- I find there are other material matters relating to the manner in which public business has been conducted.

I have nothing to report in regard to those matters upon which reporting is by exception.

gude Herer Andrew Harkness

For and on behalf of the Comptroller and Auditor General

# BOARD MEMBERS AND GENERAL INFORMATION

### BOARD OF THE NSAI

NSAI Board Members, who are appointed by the Minister for Jobs, Enterprise and Innovation comprise of the following:

Board Members: Ms. A. Riordan - Chairman Mr. M. Buckley - Chief Executive Officer Mr. J. Collins Ms. H. Curley - Retired 15th November 2011 Mr. D. Gargan Mr. R. Hadfield - Retired 27th May 2011 Ms. J. Murnane O'Connor - Retired 14th April 2011 Mr. D. O'Loughlin Mr K. Ryan Mr. E. Stack Mr. E. Wade - Retired 14th April 2011 Mr. D. Wallace Ms. M.I. Walsh

Mr. P. Bracken - Board Secretary

### **GENERAL INFORMATION**

Head Office:	1 Swift Square Northwood Santry Dublin 9
Auditors:	Comptroller and Auditor General
Bankers:	Allied Irish Banks
Solicitors:	McCann Fitzgerald

# ACCOUNTING POLICIES

### THE NATIONAL STANDARDS AUTHORITY OF IRELAND ACT, 1996

The National Standards Authority of Ireland (NSAI) was established on 14 April 1997 under Section 6 of the National Standards Authority of Ireland Act, 1996. On the establishment day all property, which immediately before that day was the property of the NSAI as a Committee of Forfás, was vested in the Authority. The transitional provisions set out in Part III of the Industrial Development (Enterprise Ireland) Act, 1998 provided for the transfer to the National Standards Authority of Ireland of all property, rights and liabilities of the Legal Metrology Service held immediately before that day by Forbairt.

### The basis of accounting and significant accounting policies adopted are as follows:-

### (a) BASIS OF ACCOUNTING

The financial statements have been prepared under the historical cost convention in the form approved by the Minister for Jobs, Enterprise and Innovation with the concurrence of the Minister for Finance under the National Standards Authority of Ireland Act, 1996.

The financial statements are prepared on an accruals basis, except as stated below and in accordance with Generally Accepted Accounting Practice. Financial Reporting Standards recommended by the recognised accounting bodies are adopted as they become applicable.

The consolidated financial statements comprise the financial statements of the Authority and its subsidiary NSAI Inc. The accounting policies of the subsidiary do not differ to those of the Authority.

### (b) INCOME

All income other than Oireachtas Grant is accounted for in the period in which it has been earned. Fees paid in advance are treated as deferred income and are reported as a current liability. This income is released to the Income and Expenditure Account on delivery of the service.

### (c) OIREACHTAS GRANT

This is accounted for on a cash basis except that when a grant is received in the year in respect of the discharge of liabilities in the following year, the grant is deferred.

### (d) TRANSLATION OF FOREIGN CURRENCIES

### Foreign Currency Transactions

Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rates ruling at the Balance Sheet date. Revenues and costs are translated at the exchange rates ruling at the dates of the underlying transactions. Profits and losses arising from foreign currency translations upon settlement of amounts receivable and payable in foreign currency are dealt with in the Income and Expenditure Account.

### **Foreign Operations**

When translating the results of the foreign operation for inclusion in the financial statements, assets and liabilities are translated at the exchange rate ruling at the Balance Sheet date. The translation difference arising from the restatement of foreign operations in the functional currency euro due to changes in exchange rates, is recognised in reserves (the Income and Expenditure Account under the heading "translation adjustment" in respect of monetary items and the Capital Account in respect of fixed asset re-translation differences.) Income and expenses are translated at monthly period average exchange rates. Any resulting translation difference compared to the Balance Sheet rate is also recognised in reserves of the operation.

### (e) FIXED ASSETS

Fixed Assets comprise tangible fixed assets which are owned by the NSAI and are stated at cost less accumulated depreciation or in the case of Land & Buildings transferred from Enterprise Ireland, National Metrology (NML) at valuation. Depreciation is calculated in order to write off the cost of fixed assets over their estimated useful lives as follows:

5 years
3 years
50 years
5 years

# ACCOUNTING POLICIES

Continued

#### (f) CAPITAL ACCOUNT

The Capital Account represents grant income utilised for the acquisition of Fixed Assets and is written down in line with the depreciation and revaluation policies for the related assets.

#### (q) DEBTORS

Debtors are stated net of a provision for non-recovery of bad and doubtful debts. The provision against non-recovery of debtors is made against specific doubtful debtors with additional provision against other trade debts where appropriate.

### (h) **LEASES**

Rentals due under operating leases are dealt with in the financial statements as they fall due.

#### (i) SUPERANNUATION

The Income and Expenditure Account, Statement of Recognised Gains and Losses and Balance Sheet recognise pension transactions, movements and balances in accordance with the requirements of Financial Reporting Standard 17, Retirement Benefits

### Forfas Scheme

Staff working in NSAI who immediately prior to establishment day were permanent members of the staff of Forfas continue to be members of said staff under Section 38(1)(a) of the National Standards Authority of Ireland Act 1996. Accordingly, under Paragraph 3 of the Second Schedule of the Industrial Development Act, 1993, Forfas is responsible for the employee pension entitlements of these staff.

### NSAI Scheme

NSAI operates a defined benefit pension scheme which is funded annually on a pay as you go basis from monies available to it, including monies provided by the Department of Jobs, Enterprise and Innovation and from contributions deducted from staff salaries.

Pension scheme liabilities are measured on an actuarial basis using the projected unit method.

Pension costs reflect pension benefits earned by employees in the period and are shown net of staff pension contributions which are retained by the NSAI. An amount corresponding to the pension charge is recognised as income to the extent that it is recoverable, and offset by grants received in the year to discharge pension payments.

Actuarial gains or losses arising from changes in actuarial assumptions and from experience surpluses and deficits are recognised in the Statement of Total Recognised Gains and Losses for the year in which they occur and a corresponding adjustment is recognised in the amount recoverable from the Department of Jobs, Enterprise and Innovation.

Pension liabilities represent the present value of future pension payments earned by staff to date. Deferred pension funding represents the corresponding asset to be recovered in future periods from the Department of Jobs, Enterprise and Innovation

### CONSOLIDATED INCOME AND EXPENDITURE ACCOUNT For Year Ended 31 December 2011

	Notes	2011 €	2010 €
Income	1	18,550,589	18,609,888
Expenditure			
Administration and General Expenses	2	24,262,568	25,311,425
Deficit before Oireachtas Grant		(5,711,979)	(6,701,537)
Oireachtas Grant	3	6,335,837	7,337,861
Operating Surplus for year		623,858	636,324
Transfer from Capital Account Translation Adjustment	5	198,897 93,310	199,364 85,862
Surplus for year		916,065	921,550
Balance at 1 January		3,246,527	2,324,977
Balance at 31 December		4,162,592	3,246,527

Amounts shown under Income and Expenditure are in respect of continuing activities.

The Accounting Policies, Cashflow Statement and Notes 1 to 16 form part of the Financial Statements.

On behalf of the Board:

Marera Buckly

**Ann Riordan** Chairman

Maurice Buckley Chief Executive Officer

# STATEMENT OF CONSOLIDATED TOTAL RECOGNISED GAINS AND LOSSES

As at 31 December 2011

	Notes	2011 €	2010 €
Surplus for year		916,065	921,550
Experience Gains on pension scheme liabilities Changes in assumptions underlying the present value of pension scheme liabilities	12 (d) 12	620,000 -	3,450,000
Actuarial Gains on Pension Liabilities		620,000	3,450,000
Adjustment to Deferred Pension Funding	12	(620,000)	(3,450,000)
Total Recognised Gains for the year		916,065	921,550

The Accounting Policies, Cashflow Statement and Notes 1 to 16 form part of the Financial Statements.

On behalf of the Board:

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**Ann Riordan** Chairman

Mauera Frekly

Maurice Buckley Chief Executive Officer

### CONSOLIDATED BALANCE SHEET As at 31 December 2011

	Notes	2011 €	2010 €
Fixed Assets			
Tangible Fixed Assets	6	4,752,880	3,682,379
Current Assets			
Debtors and Prepayments	8	3,656,105	3,608,359
Bank		2,145,573	1,652,862
		5,801,678	5,261,221
Creditors : amounts falling due within one year	9	1,639,086	2,014,694
Net Current Assets	,	4,162,592	3,246,527
Total Assets less current liabilities before Pensions		8,915,472	6,928,906
Deferred funding Asset for Pensions	12 (c)	32,000,000	29,800,000
Pension Liabilities	12 (b)	(32,000,000)	(29,800,000)
		-	-
Total Assets less current liabilities after Pensions		8,915,472	6,928,906
Net Assets		8,915,472	6,928,906
Financed By:			
Capital Account	5	4,752,880	3,682,379
Income and Expenditure Account		4,162,592	3,246,527
		8,915,472	6,928,906

The Accounting Policies, Cashflow Statement and Notes 1 to 16 form part of the Financial Statements.

On behalf of the Board:

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Mausra Fuckly

**Ann Riordan** Chairman

Maurice Buckley Chief Executive Officer

### CONSOLIDATED CASH FLOW STATEMENT For Year Ended 31 December 2011

	Notes	2011 €	2010 €
Reconciliation of Operating Surplus for Year to Net Cash Inflow from Operations			
Operating Surplus for the Year		623,858	636,324
Bank Interest		(9,540)	(9,891)
Depreciation Charge	6	739,139	790,421
Profit on disposal of Tangible Fixed Assets		(31,000)	(253)
(Increase)/Decrease in Debtors and Prepayments		(47,746)	47,232
(Decrease) in Creditors and Accruals		(375,608)	(430,729)
Currency Translation Adjustment		93,310	85,862
Net Cash Inflow from Operations		992,413	1,118,966
CASH FLOW STATEMENT Net Cash Inflow from Operations		992,413	1,118,966
		,	.,
Returns on Investment and Servicing of Finance			
Bank Interest		9,540	9,891
Cash Flow before Capital Expenditure		1,001,953	1,128,857
Capital Funding			
Purchase of Tangible Fixed Assets	6	(540,242)	(591,057)
Sale of Tangible Fixed Assets		31,000	253
Increase in Cash		492,711	538,053
Reconciliation of Net Cash Flow to Movement in Net Funds			
Movement in Net Funds in the year		492,711	538,053
Net Funds at 1 January		1,652,862	1,114,809
Net Funds at 31 December		2,145,573	1,652,862

# NOTES TO THE ACCOUNTS

For Year Ended 31 December 2011

Income			
		2011 €	201 €
Certification Fees		14,569,966	14,234,83
Sale of Standards		804,080	759,86
Other Income		347,003	355,29
Bank Interest		9,540	9,89
		15,730,589	15,359,88
Net deferred funding for pensions	Note 12 (c)	2,820,000	3,250,00
		18,550,589	18,609,88
Administration and General Expenses		2011	201
		€	
Pay and Superannuation costs		12,294,384	12,783,95
Pension costs	Note 12 (a)	2,869,378	3,076,91
Board Members Remuneration and Expenses	Note 15	63,362	79,62
Travelling Expenses		1,253,573	1,266,06
Sub-contracted and Professional Services		2,899,441	2,864,36
Rents, Rates, Repairs and Maintenance		1,923,342	1,760,46
Other Operating Expenses		1,599,597	2,058,29
Profit on disposal of Fixed Assets		(31,000)	(25
Subscriptions to Organisations		625,502	605,72
Depreciation Audit Fee	Note 6	739,139 25,850	790,42 25,85
		24,262,568	25,311,42
		24,202,000	20,011,42
Pay and Superannuation Costs of staff comprise :			
Wages and Salaries		11,564,643	12,156,98
Social Welfare Costs		725,793	732,73
Superannuation Costs		3,948	(105,75
		12,294,384	12,783,95

The number of persons employed at 31 December 2011 was 167. (2010: 178)

Other Operating Expenses includes an amount of €5,586 in relation to Staff entertainment expenses. These costs include a contribution to staff social club events and staff team building exercises.

)	Oireachtas Grant		
		2011	2010
		€	€
	Grant for Administration and General Expenses	6,335,837	7,337,861
		6,335,837	7,337,861

The Oireachtas Grant is issued by The Department of Jobs, Enterprise and Innovation and includes an amount of €499,837 in relation to capital purchases in 2011.

# NOTES TO THE ACCOUNTS CONTINUED

For Year Ended 31 December 2011

### (4) Transfer of National Metrology Laboratory

The activities of the National Metrology Laboratory were transferred to the NSAI on the 2nd of June 2009 following the enactment of the Industrial Development Act 1998.

Assets and liabilities of the National Metrology Laboratory with the exception of land and buildings were transferred to NSAI in 2009. Transfer of ownership of the land and buildings was completed in 2011. Valuation was based on a professional valuation.

### (5) Capital Account

Copening balance3,682,3793,879,Net Movements on Tangible Fixed Assets(198,897)(199,3)Transfer to Income & Expenditure Account(198,897)(199,3)Transfer of NML Land & Buildings from Enterprise Ireland (Note 4)1,270,000	At 31 December	4,752,880	3,682,379
Copening balance3,682,3793,879,Net Movements on Tangible Fixed Assets(198,897)(199,3)Transfer to Income & Expenditure Account(198,897)(199,3)Transfer of NML Land & Buildings from Enterprise Ireland (Note 4)1,270,000	Currency Translation Adjustment	(602)	2,008
€Opening balance3,682,3793,879,Net Movements on Tangible Fixed Assets(198,897)(199,300)	Transfer of NML Land & Buildings from Enterprise Ireland (Note 4)	1,270,000	
€   Opening balance 3,682,379 3,879,1	Transfer to Income & Expenditure Account	(198,897)	(199,364
€	Net Movements on Tangible Fixed Assets	(198,897)	(199,364
	Opening balance	3,682,379	3,879,735
		2011 €	2010 €

### (6) Tangible Fixed Assets

	Equipment, Fixtures & Fittings €	Computer Equipment €	Land & Buildings €	Motor Vehicles €	Total €
In Euro					
COST					
At 1 January 2011	4,389,780	2,549,840	2,933,632	315,228	10,188,480
Additions	145,081	238,751	0	156,410	540,242
Disposals	0	(21,204)		(111,307)	(132,511)
Transfer of NML Land & Buildings from EI (Note 4)			1,270,000		1,270,000
Translation Adjustment	1,600	4,118			5,718
At 31 December 2011	4,536,461	2,771,505	4,203,632	360,331	11,871,929
DEPRECIATION					
At 1 January 2011	3,415,260	2,092,591	712,706	285,544	6,506,101
Charge for Year	384,795	265,221	58,667	30,456	739,139
Disposals	0	(21,204)		(111,307)	(132,511)
Translation Adjustment	1,837	4,483			6,320
At 31 December 2011	3,801,892	2,341,091	771,373	204,693	7,119,049
NET BOOK VALUE					
At 1 January 2011	974,520	457,249	2,220,926	29,684	3,682,379
Net movement for year	(239,714)	(26,470)	(58,667)	125,954	(198,897)
Transfer of NML Land & Buildings from EI (Note 4)			1,270,000		1,270,000
Translation adjustment	(237)	(365)			(602)
At 31 December 2011	734,569	430,414	3,432,259	155,638	4,752,880

### (7) Property

NSAI occupies premises at a number of locations. Our head office is located at 1 Swift Square, Santry, Dublin 9. These premises are leased, the lease was entered into in January 2008 for a period of 20 years. The first 5 year rent review is due to be undertaken in January 2013 covering the period commencing 1 January 2013.

NSAI has Regional Offices in Limerick and the USA. The Limerick office is located at Plassey Park Road, National Technology Park, Castletroy, Co Limerick, these premises are owned by NSAI. The regional office in the USA is located at 402 Amherst Street, Nashua, NH 03063, USA, these premises are leased, the lease was entered into in December 1999 and is due to expire August 2012.

The NSAI National Metrology Laboratory is located at Glasnevin, Dublin 9, these premises are owned by NSAI.

The NSAI has a number of Legal Metrology Service Regional Centres. These centres are located at Cork, Limerick, Dublin, Sligo, Dundalk, Waterford and Galway. All of these premises are owned by NSAI.

Debtors and Prepayments		
	2011	2010
	€	€
Trade Debtors	2,508,003	2,788,604
Accrued Income	616,554	375,378
Prepayments	531,548	444,377
	3,656,105	3,608,359
 Creditors : amounts falling due within 1 year		
с ,	2011	2010
	€	€
Trade Creditors	208,207	435,408
Other Creditors and Accruals	682,088	745,564
Deferred Income	689,964	834,068
Taxation, Social Insurance and VAT	58,827	(346)

### (10) Commitments under Operating Leases

Payments made under Operating Leases on Buildings charged in the financial statements amounted tom €932,351 (2010: €939,537). Payments under Operating Leases on Buildings amounting to €932,461 are due to be made in 2012. These are in respect of leases which expire as follows:

	2011 €	2010 €
Expiry of Lease:		
Within one year		
One to five years	40,510	43,042
After five years	891,951	891,951
	932,461	934,993

### (11) Taxation

The Authority is exempt from taxation on its income.

# NOTES TO THE ACCOUNTS CONTINUED

For Year Ended 31 December 2011

### (12) Pension Costs

Analysis of total pension costs ch	5	0044
	2011	2010
Current service costs	€1,700,000	€2,000,000
Interest on pension scheme liabil	ities €1,600,000	€1,600,000
Employee contributions	(€430,622)	(€523,085
	00.070.070	£2.07/01
Movement in Net Pension Liabili		<u> </u>
Movement in Net Pension Liabili		
<b>Movement in Net Pension Liabili</b> Net pension liability at 1 January	ty during the financial year 2011	201
	ty during the financial year 2011	€3,076,915 2010 €30,000,000 €2,000,000
Net pension liability at 1 January	ty during the financial year 2011 €29,800,000	201( €30,000,000
Net pension liability at 1 January Current service cost	ty during the financial year 2011 €29,800,000 €1,700,000	2010 €30,000,000 €2,000,000

### (c) Deferred funding for Pensions

NSAI recognises these amounts as an asset corresponding to the unfunded deferred liability for pensions on the basis of a set of assumptions and a number of past events. These events include the statutory basis for the establishment of the superannuation scheme, and the policy and practice currently in place in relation to funding public service pensions including contributions by employees and the annual estimates process. NSAI has no evidence that the policy referred to above will not continue to meet such sums in accordance with current practice.

The net deferred funding for pensions recognised in Income and Expenditure Accounts was as follows:

	2011	2010
Funding recoverable in respect of current year pension costs	3,300,000	3,600,000
State grant applied to pay pensioners	(480,000)	(350,000)
	2,820,000	3,250,000

The deferred funding asset for pensions as at 31 December 2011 amounted to €32.0 million (2010: €29.8 million).

### (d) History of defined benefit obligations

	2011	2010	2009	2008
Defined benefit obligations	€32,000,000	€29,800,000	€30,000,000	€25,400,000
Experience gains on scheme liabilities				
Amount	(€620,000)	(€3,450,000)	(€1,900,000)	(€346,000)
Percentage of scheme liabilities	(2%)	(12%)	(6%)	(1%)

The cumulative actuarial gain recognised in the Statement of Total Recognised Gains and Losses amounts to €5,183,000.

### (12) Pension Costs [continued]

### (e) General Description of the Scheme

The pension scheme is a defined benefit final salary pension arrangement with benefits and contributions defined by reference to current "model" public sector scheme regulations. The scheme provides a pension (eightieths per year of service), a gratuity or lump sum (three eightieths per year of service) and spouse's and children's pensions. Normal retirement age is a member's 65th birthday, and pre 2004 members have an entitlement to retire without actuarial reduction from age 60. Pensions in payment (and deferment) normally increase in line with general public sector salary inflation.

The valuation used for FRS17 (Revised) disclosures has been based on a full actuarial valuation dated 3rd March 2012 by a qualified independent actuary taking account of the requirements of the FRS in order to assess the scheme liabilities at 31 December 2011.

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The principal actuarial assumptions were as follows:

	2011	2010	2009
Rate of increase in salaries	4%	4%	4%
Rate of increase in pensions in payment	4%	4%	4%
Discount rate	5.5%	5.5%	5.5%
Inflation rate	2%	2%	2%

### (f) Mortality

Average future life expectancy according to the mortality tables used to determine the pension liabilities.

	2011	2010	2009
Male aged 65	22	22	22
Female aged 65	25	25	25

### (13) NSAI Inc.

NSAI Inc. was established in New Hampshire, USA on July 1, 1997 as a not for profit corporation wholly-owned by the NSAI for the purpose of distribution and dissemination of information on current and proposed Irish and EU standards, the provision of technical reviews and evaluation of products, processes and practices and certification for conformity to EU, Irish and International standards. The balances and transactions of NSAI Inc. have been included in these financial statements. The Consolidated Operating Surplus for the year includes a surplus from the operations of NSAI Inc. of &376,919. (2010 : &312,709).

### (14) Board Members - Disclosure of Transactions

In the normal course of business, the NSAI may enter into contractual arrangements with undertakings in which NSAI Board Members are employed or otherwise interested. The NSAI adopted procedures in accordance with the guidelines issued by the Department of Finance in relation to the disclosure of interests by Board Members and these procedures have been adhered to by the NSAI during the year.

# NOTES TO THE ACCOUNTS CONTINUED

For Year Ended 31 December 2011

(15)	Directors fees and CEO Salary		
(a)	Directors fees paid in 2011		
	Ms. A. Riordan	€11,311	Chairman
	Mr. J. Collins	€7,482	
	Mr D. Gargan	€7,271	
	Ms J. Murnane O'Connor	€1,966	Retired 14 April 2011
	Mr K. Ryan	€7,271	
	Mr E. Stack	€7,271	
	Mr E. Wade	€1,981	Retired 14 April 2011
	Mr. D. Wallace	€7,422	
	Ms M. I. Walsh	€7,271	
	Mr M. Buckley	€0	Chief Executive Officer
	Ms H. Curley	€0	Dept. Jobs, Enterprise and Innovation
			Representative
			Retired 14 April 2011
	Mr R. Hadfield	€0	Staff Representative, retired 27 May 2011
	Mr D. O'Loughlin	€0	Staff Representative

Fees in 2011 incorporate a recoupment of an overpayment of fees in 2010. Director fees were overpaid by 5% in 2010 due to late notification of the revision of fees for membership to State Bodies.

### (b) Directors Expenses

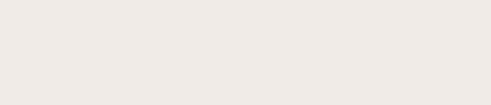
The total Directors expenses for 2011 was €4,116

### (c) CEO salary

The Chief Executive's annual basic salary paid in 2011 was €153,651. Payments to the Chief Executive under performance related schemes in 2011 was €0. The total overall cost of the Chief Executive remuneration package (including superannuation provision, company car and any other benefits) for 2011 was €164,529. The Chief Executive is a member of the NSAI staff superannuation scheme and his pension entitlements do not extend beyond the standard entitlements of the model public sector scheme.

### (16) Approval of Financial Statements

The financial statements were approved by the Board on 21 June 2012.





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