



NSAI

Strategic Plan

2016-2020





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Foreword from Mr Pat Breen TD, Minister for Employment and Small Business



As Minister with responsibility for the National Standards Authority of Ireland, I would like to congratulate the National Standards Authority of Ireland (NSAI) on its Strategy for 2016-2020. The work undertaken by the NSAI to align with Government strategy is evident and is welcomed. Our country has been through the worst recession in history and the Irish economy is now beginning to grow with much-needed jobs being created in all regions.

The Action Plan for Jobs has been a key instrument in creating new jobs to replace those that were lost during the downturn. The actions contained in the Plan provided the opportunity for Government Departments and State bodies and agencies to re-examine what they do and how they do it and to focus on doing more with less. I am glad to say that the evidence shows that much has been achieved over recent years in restoring fiscal sustainability, stabilising the banking system, improving our international competitiveness and in creating jobs.

I support the vision set out in NSAI's strategy 2016-2020 which seeks to support Irish industry through the provision of world-class services in standardisation, certification and measurement. Maintaining and improving Ireland's competitiveness is key to economic growth and job creation, and the use of standards and certification is a valuable tool for all businesses – big and small – in all sectors, and in new and evolving areas e.g. the Digital Single Market, where new trading opportunities are opening up for quick-moving countries and companies.

As Minister for Employment and Small Business, I am keen to see all opportunities for Ireland's SME's capitalised on so that new European and international markets can be accessed, particularly at a time when the impact of Brexit is starting to be felt causing some Irish exporters to consider finding new export markets. There is a link between using internationally-recognised standards and quality systems in products and services and enhancing a firm's competitiveness. In this regard I encourage NSAI to continue engaging with businesses to de-mystify the technical nature of standards and provide support and advice on how standards can help them.

I support the objectives of NSAI's new strategy and look forward to reviewing the outcomes achieved over the period and the benefits they have for Ireland's economy as a whole and for consumers and businesses in particular.

Pat Breen TD

Minister for Employment and Small Business

Chairman & Chief Executive Statement



We are delighted to present NSAI's Strategic Plan for 2016 to 2020.

On the basis of research conducted over the past year, we know for a fact that standards play an important role in determining the pace of long-term economic growth and job creation. Our survey results also show that four in six people believe that standards help speed technology transfer and that standardization has enabled firms to gain economies of scale – this is a firm foundation from which we want to build on.

The essence of our strategy is to set the ambition, focus, and scale of the NSAI service offering planned for the next five years as our organisation emerges from a period of deep retrenchment. In order to establish their relevance to current Irish business and societal priorities, all NSAI core services and functions have been comprehensively reviewed and reassessed.

On this basis, behind this published strategy a detailed five-year model and financial plan has been developed to show the change in output, contribution to mission, and net cost or income of each of our standardization, conformity assessment, industrial metrology and legal metrology services.

Accordingly, some non-core activity will be discontinued or significantly scaled back, while we will expand on other key areas, including our medical device CE mark product approvals, standardization supporting digitisation and ICT, EMPIR research, Horizon 2020 engagement, Excellence Through People certification, and the geographical coverage of our legal metrology activities.

We have retained the core themes of technical quality infrastructure and business excellence (from the 2013 to 2015 Strategic Plan), which so much of NSAI activity feeds into. These elements support Government policy on recovery by opening up global markets for Irish exporters while maximising the benefits to domestic businesses and consumers.

We have added the new theme of global business environment to better highlight the role NSAI plays in bringing international best practice back to Irish business in so many areas and in advocating for Irish interests across various global and European standards regulatory bodies. For example, there is a potential new offering – Technical Knowledge Service – being explored to provide guidance to Irish-based companies navigating their way through the myriad of European technical standards and regulations.

Conscious of the continued pressure to restrict public service staff numbers and expenditure as well as addressing the age demographic of our staff and the need for succession planning, this strategy was designed to carefully balance fee earning services and services which are predominantly funded by the tax payer so that our public good activity – supporting competitiveness, fair trade practice, consumer and environmental protection, health and safety, and sustainability – could be rapidly expanded without a commensurate drain on exchequer resources.

While additional funding will be needed in 2017 and 2018 to kick-start the measures contained in this strategy, the income generated from conformance assessment programmes in Ireland and overseas will increase and progressively offset this financing, so that the net cost to the exchequer at the end of the strategy period will be very similar to today while service levels will have increased by some 20%.

During the economic downturn, NSAI reduced its headcount by over 30%, from 205 to 135. In rebuilding the organisation and its service portfolio, staff numbers are set to increase to 170 over five years, which is still roughly 15% lower than at the peak. This will be achieved through the combined application of ICT technology, external service delivery initiatives, and the ISO 9001 and LEAN/Operational Excellence programmes which have been successfully running since 2010.

Weathering the recession period with minimal negative impact on our service users has only been possible through the admirable dedication and professionalism of our people, who have expertly espoused the values of the organisation in difficult times. We would like to express our sincere gratitude to the entire staff and look forward to continuing our work together to drive the international competitiveness of Irish-based businesses and to deliver the essential infrastructure for a safe and attractive trading environment for our consumers.

Julie O'Neill

NSAI Chairman

Maurice Buckley

Chief Executive

About NSAI



Introduction

NSAI was established under the National Standards Authority of Ireland Act 1996 and reports to the Minister for Jobs, Enterprise and Innovation. As the leading state agency charged with responsibility for the key technical services of standardization, conformity assessment and measurement traceability, NSAI's role is to ensure that these services are expertly and effectively delivered and that Irish businesses¹ can avail of them in a timely and efficient manner.

NSAI's purpose is achieved by:

- ▶ Encouraging the use of standards with a view to improving the processes and methods used in our country-wide industries;
- ▶ Formulating standards, guides, recommendations and codes of practice for processes and practices used in the manufacturing and services industries;
- ▶ Encouraging and facilitating broad stakeholder participation in standardization activities at national, European and international levels;
- ▶ Providing businesses with internationally recognised certification for products, processes or practices as conforming to relevant standards or specifications;
- ▶ Ensuring industry access to internationally traceable measurement standards;
- ▶ Providing high precision instrument calibration; and
- ▶ Overseeing measurements and measuring instruments used in trade.

Technical Quality Infrastructure

NSAI is the national body underpinning Ireland's technical quality infrastructure, encapsulating four of the five internationally recognised engineering and technical skills components of an efficient trading system.²

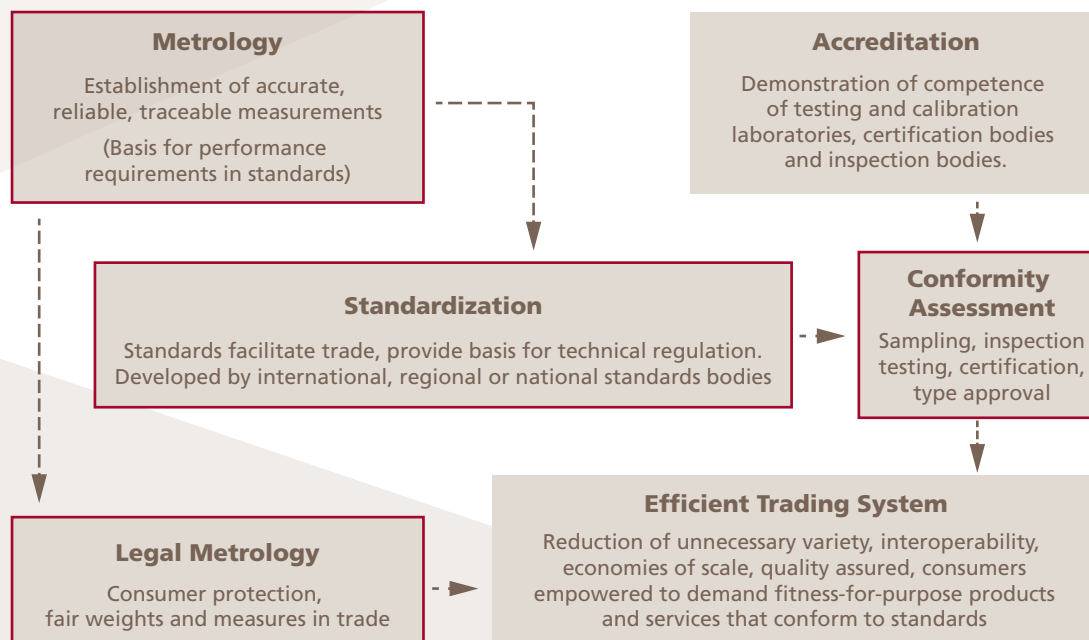


Figure 1: Components of an Efficient Trading System

1 There are 185,500 active businesses employing over 1.2m people in Ireland Business in Ireland 2012, published by CSO 2014.

2 UNIDO/ISO Fast Forward 2008

These integrated and interrelated disciplines provided by NSAI benefit Irish industry in particular and society generally because companies who are more competitive not only maintain their market share but have real potential to expand domestically and internationally. This creates a positive impact on employment levels and overall quality of life, while increased measures of health and safety along with consumer and environmental protection brought about through better products and services are advantageous for all citizens.

Our Services

The services provided by NSAI are delivered through the following core activities:

Standardization

NSAI develops, publishes and promotes Irish, European and International Standards with the aim of improving the efficiency, quality, design, performance, safety and the environmental impact of goods and services produced.

NSAI participation in standards development through the national consultative committee network³ or international standards committees⁴ gives Irish businesses access to a network of national and international stakeholders (standards researchers/experts, potential customers, competitors, suppliers, consumers and users), thereby shaping the future standards applicable to their own industries.

Scientific and Industrial Metrology

Through the National Metrology Laboratory (NML) facility, NSAI discharges the role of the national metrology institute for Ireland which is to provide industrial and scientific metrology to Irish industry, through access to internationally traceable measurement standards and an accompanying high precision instrument calibration service. These activities support businesses who have requirements for the highest measurement accuracy throughout their development, manufacturing and control processes.

Legal Metrology

As the NSAI's regulatory function, Legal Metrology is charged with the oversight of measurements and measuring instruments used in trade, and has the powers to investigate and prosecute for breaches of metrology legislation. Legal Metrology operates on a risk-based assessment model covering 40,000 traders and 75,000 trading instruments deployed across a wide range of industry sectors, from food production, including export enterprises, to local retailing. These protections underpin trade equity and consumer confidence, which contribute significantly to the stability of the economy closest to the public.

Conformity Assessment

Through internationally recognised schemes, NSAI provides an independent, third party conformity assessment service that enables businesses to demonstrate to their customers, stakeholders and the wider public that their products or services meet the appropriate standards. A comprehensive suite of schemes is provided to meet industry requirements for:

- ▶ Mandatory certification – in certain sectors such as medical and automotive, products or services cannot be placed on the market without approval or certification by an approved designated body.
- ▶ Voluntary certification – this is utilised by businesses to improve their efficiency or to demonstrate that their products and services meet the requirements of standards.

3 See Appendix 3 Standards Consultative Committees

4 See Appendix 2 Membership of International Standards Organisations

Our Interaction with Government Departments & Legal Remit



Figure 2: Examples of NSAI interaction with Irish Government Departments and Agencies

Background

The European regulatory environment is evolving and maturing with the accumulation of 20 years work culminating in a raft of technical harmonisation legislation. As a result, Irish industry is being challenged by an increasingly complex rules landscape for products and services leading to new or updated compliance requirements which are not always anticipated. In these circumstances the interaction between NSAI and various Government Departments and Agencies has grown considerably resulting in an enlarged legal and policy remit as outlined below.

Our Legal Remit

Primary Legislation

- ▶ NSAI Act, 1996
- ▶ Metrology Acts 1980-1998
- ▶ Regulation on Standards (EU) 1025/2012

Designations, Appointments and Recognitions

NOTIFIED BODY FOR CONFORMITY ASSESSMENT RELATED TO EUROPEAN CE MARKING

- ▶ Regulation (EU) No 305/2011 – Construction products
- ▶ Directive 90/385/EEC on Active Implantable Medical Devices
- ▶ Directive 93/42/EEC on Medical Devices
- ▶ Directive 98/79/EC on In-vitro Diagnostic Medical Devices
- ▶ Directive 2014/31/EU (ex-2009/23/EC) on Non-automatic Weighting Instruments
- ▶ Directive 2014/32/EU (ex-2004/22/EC) on Measuring Instruments

MOTOR VEHICLES AND AUTOMOTIVE-RELATED

- ▶ National Approval Authority for –
 - ▶ national, European and UNECE type approval of passenger and commercial vehicles, systems and components (S.I. No. 157 of 2009, S.I. No. 158 of 2009).
 - ▶ type approval of Two or Three Wheel Motor Vehicles and Quadricycles (S.I. No. 614 of 2015).
 - ▶ control of Emissions of Gaseous and Particulate Pollutants from Non-Road Mobile Machinery (S.I. No. 147 of 2007).
 - ▶ type approval of Transport Equipment for International Carriage of Perishable Foodstuffs (S.I. No. 504 of 2004 and S.I. No. 546 of 2004).
- ▶ Competent Authority for -
 - ▶ conformity assessment of receptacles, tanks and containers for equipment used to transport dangerous goods by road (S.I. No. 349 of 2011).
 - ▶ appointment and oversight Workshops installing Tachographs, Plating and Speed Limitation Devices.

CONSTRUCTION AND THE BUILT ENVIRONMENT

- ▶ Designated Technical Assessment Body (TAB) for the Construction Products Regulation (EU) No 305/2011
- ▶ Agrément Certification Recognised as Compliance with Irish Building Regulations – S.I. No 497 of 1997

FOOD RELATED SERVICES INSPECTIONS

- ▶ 2004/1935/EC – EU Framework Regulation on Materials and Articles Intended for Food Contact
- ▶ 80/777/EEC and 2003/40/EC – Natural Mineral Water

SEA FISHERIES

- ▶ Competent authority for weighing equipment used for the EU community control system (S.I. No. 54 of 2016)

Information Services

IRISH CONTACT POINT

- ▶ Notifications under Directive 2015/1535/EU on Prevention of Technical Barriers to Trade
- ▶ Information about Technical Rules on Non-harmonised Products under the Mutual Recognition Regulation (EC) 764/2008

ISO INTERNATIONAL NUMBERING SCHEMES

- ▶ Automotive Manufacturers Vehicle Identifier (VIN numbers)
- ▶ Credit Card/Debit Card Number

Strategy Development



Context

Internationally, as trade takes new forms, through global value chains and shared challenges such as climate protection, finding sustainable solutions that enable the dispersal of new technology and innovation are increasingly important. International trade negotiations, such as the TTIP⁵, have highlighted the importance of standardization and conformity assessment as key to trade and growth.

Domestically, as Ireland returns to strong economic growth,⁶ NSAI must ensure that the reform momentum is maintained and that its standardization, conformity assessment, industrial metrology and legal metrology services are provided in an efficient and effective manner that will support the economic recovery for businesses, resulting in enhanced levels of consumer confidence and the minimisation of risks for the wider population.

Our 2016 to 2020 strategy has been developed against the promising economic forecasts, while recognising the underlying issues such as lower productivity growth, particularly in the SME sector, where NSAI services can make a positive contribution. As the economy grows, Irish industry will look to supports that will assist in increasing efficiency and quality in order to expand their markets for goods and services produced – this is where NSAI seeks to make a valued contribution.

A survey commissioned by NSAI on the economic contribution of standards in Ireland⁷ has concluded that standards play an important role in determining the pace of long-term economic growth and job creation, and that these economic contributions are attributed to a vital and often invisible role that standards play in boosting export and FDI activity by defining best practice, galvanising innovation and further catalysing it, not only in production and manufacturing but increasingly in the services sector also.

As a small, high tech economy, global developments in technology also have a significant impact on the formulation of this strategy as every industry, no matter how big or small, is in the process of being affected if not transformed by the Internet of Things and Industry 4.0 – the so-called fourth industrial revolution. This is part of the wider emergence of the “digitally networked society”, which presents immense opportunities as well as risks to businesses due to its potentially disruptive impact.

These factors have been pivotal in defining the strategic direction as NSAI's response to maintaining core services while addressing the emerging economic conditions and evolving global industrial developments.

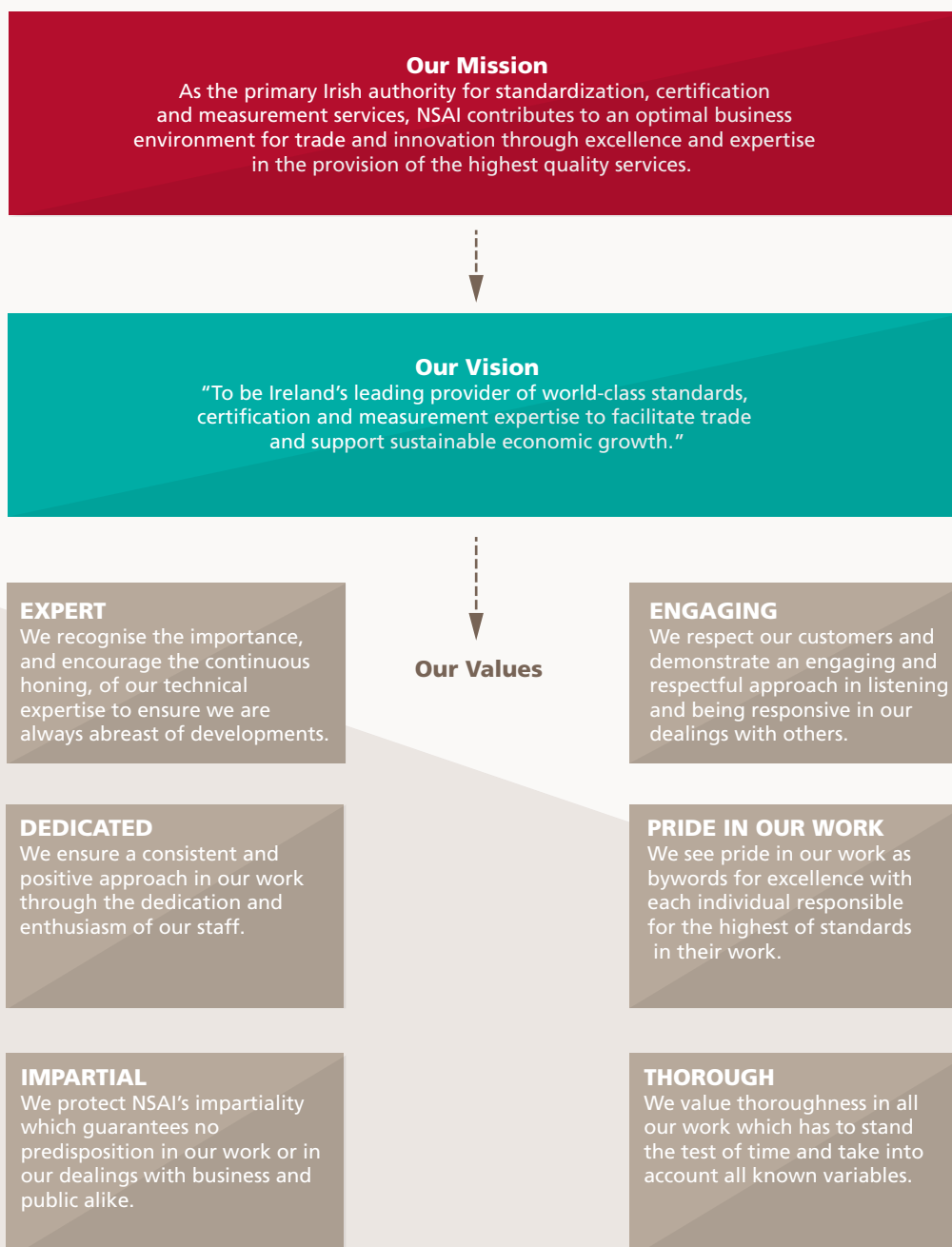
5 TTIP Transatlantic Trade and Investment Partnership

6 OECD Economic Surveys Ireland September 2015

7 Economic Contribution of Standards in Ireland Cebr 2015

Mission, Vision and Values Statements

Having considered the emerging market requirements and technological developments, along with our legislative framework and the Department of Jobs, Enterprise and Innovation strategy, NSAI's mission and vision statements now reflect the integrated role of our services contribution to Ireland's trade infrastructure.



Services/Functions Review

In preparing this strategy and deciding on the future services profile to be provided by NSAI, all functions and operations were assessed⁸ in terms of their:

- ▶ contribution to the NSAI mission before and after the implementation of the strategy; and
- ▶ financial contribution to and demands on the organisation.

The repositioning of our functions and operations achievable through the successful implementation of this strategy is demonstrated in Figure 3 (Contributions to Mission and Finances – 2015 and 2020).

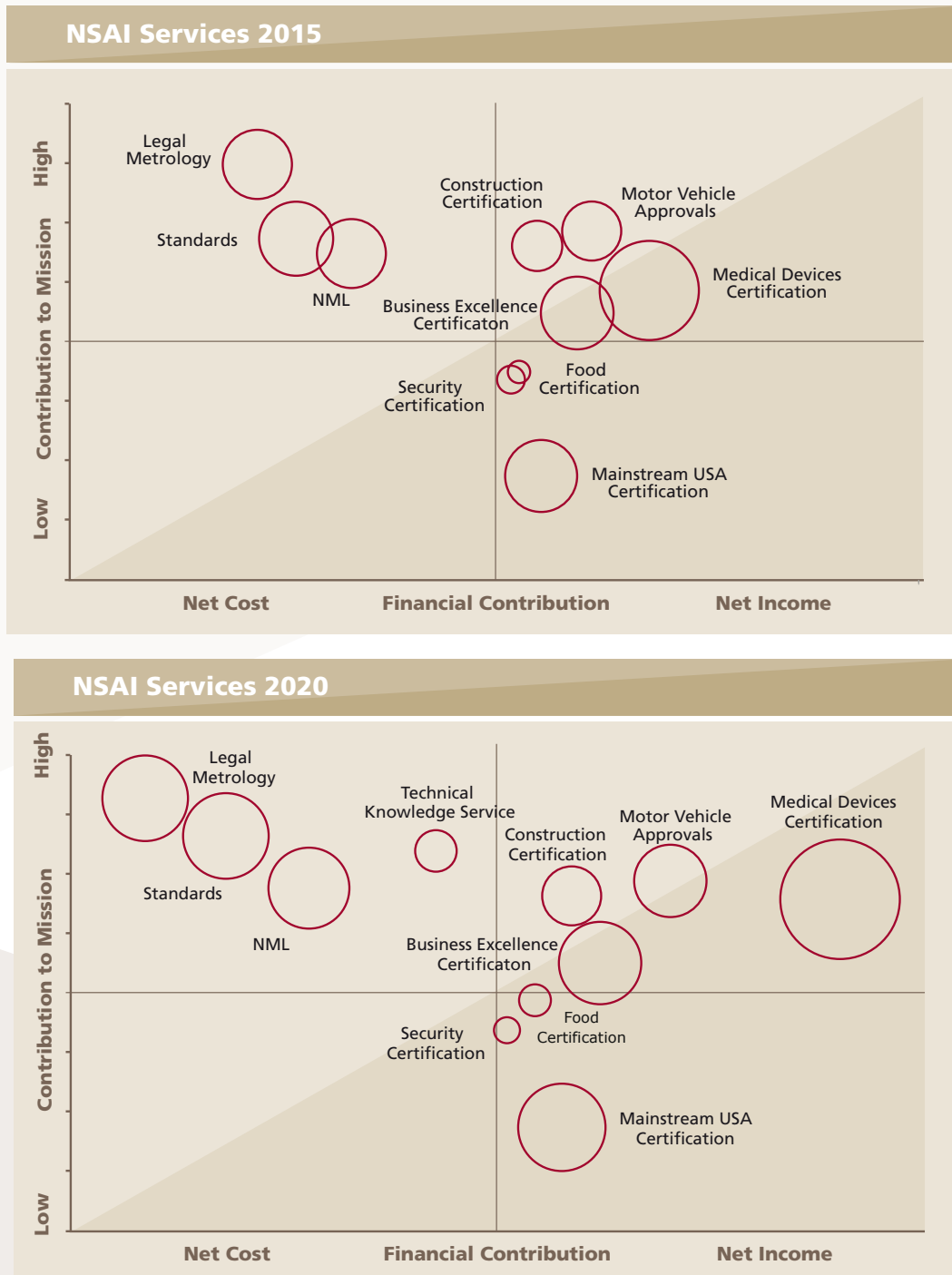


Figure 3: Contributions to NSAI Mission and Finances – 2015 and 2020

8 Refer Appendix 1 Assessment of Functions Criteria

The growth in the public good functions of Standards, Legal Metrology and the National Metrology Laboratory will be primarily self-funded through those services which generate a fee income and which are projected to grow significantly over the period of the strategy. Consequently, exchequer support for NSAI in 2020 is projected to remain broadly at the 2015 level, which is in the region of 33% less than the funding level prior to the economic downturn.

More specifically, NSAI investment in standards development, NML measurement and legal metrology will result in significant increases in activity levels along with the alignment of these services to increase their contributions to the NSAI mission by 2020 (higher on the vertical axis in Figure 3).

There is a net cost to the organisation (the move to the left of these three services in the 2020 chart) – this will be offset by the increased net financial contribution from the growing medical devices, motor vehicle, construction, business excellence, food and other certification activities (on the right-hand side of the chart) over the five-year period.

The 2020 chart also shows a potential new offering – Technical Knowledge Service – to provide guidance to Irish-based companies navigating their way through the myriad of European technical standards and regulations. The feasibility, demand, and benefits of such a service will be explored with interested stakeholders in 2016 before a final decision is made on whether resources should be allocated to the provision of this new function.



Strategic Framework

This 2016 to 2020 strategy is designed to support businesses and the national economic recovery and to help create the conditions required for sustainable long-term growth through enhancing the competitiveness of Irish-based businesses.

The primary aim of the Authority is to provide the necessary technical services of Standardization, Metrology and Conformity Assessment to underpin Ireland's technical quality infrastructure. The technical quality infrastructure along with business excellence and the global business environment are the three primary themes of the strategy to be implemented throughout our organisation:

- ▶ **Technical Quality Infrastructure**
 - ▶ Providing a technical quality infrastructure for Irish businesses matched to the business and regulatory environments; and
 - ▶ Responding to the needs of policy makers, regulators, enforcement and market surveillance bodies, with whom NSAI has shared policy objectives, as they feed into the Irish quality infrastructure.
- ▶ **Business Excellence:**
 - ▶ Ensuring the relevant product standards and management systems certification for Irish businesses, particularly export companies, to increase their efficiency and competitiveness and to secure their longevity⁹.
- ▶ **Global Business Environment**
 - ▶ Leveraging the Authority's knowledge and expertise gained through NSAI's international memberships and footprint for the benefit of the Irish business and national trade infrastructure.

Strategic Outcomes

The desired outcomes from our strategy are to deliver:

- ▶ A high-performance body providing technical services appropriate to the needs of business and regulators;
- ▶ An enhanced knowledge bank of technical information and advice;
- ▶ Improved business benefits through increased stakeholder participation in the national and international standardization processes;
- ▶ Heightened realisation by business leaders of the benefits of standardization leading to higher levels of adoption and implementation of standards across Irish businesses;
- ▶ A comprehensive certification service supporting Irish business development and competitive positioning;
- ▶ Expanded inspection and verification regimes leading to improved compliance for measurements used in trade;
- ▶ Standards and metrology services aligned to sectors of key importance to the State; and
- ▶ National interests being comprehensively represented in relevant international forums.

Strategic Themes – Rationale, Objectives, Desired Outcomes, Initiatives and Performance Indicators





Technical Quality Infrastructure

Increasingly, the business operating environment is being shaped by the changing regulatory environment at global, European and national levels. The WTO has acknowledged that the complementarity of standards and technical regulations on the basis of the use of international standards has become one of the most significant tools to facilitate trade¹⁰. Since the mid 1980's, a significant amount of European Union product legislation, informed by public interest objectives of health and safety, consumer protection, environmental protection, sustainability and fair trade practice, has been framed around coherent conformity assessment procedures heavily supported by European standards. In recent years, new measures introduced to improve market surveillance and boost the quality of conformity assessments have further changed elements of this regulatory environment. The environment is further shaped through schemes driven by businesses reflecting best practice and providing compliant companies with the edge necessary to compete successfully nationally and internationally.

These ongoing changes bring challenges for NSAI to supply Irish businesses – manufacturers, service providers, importers or distributors – with the relevant products and services they require in order to comply with regulation or best practice. This is especially important where such compliance is essential to gain market access, successfully compete or trade in the marketplace. At the same time, as the model regulatory environment grounded on standards and conformity assessment continues to develop, there is a growing demand from policy makers, regulators and those public authorities involved in market surveillance to access NSAI's pool of technical expertise to assist, collaborate and develop solutions for shared objectives.

NSAI activities in standardization, conformity assessment and metrology are the core elements of Ireland's technical quality infrastructure. Without local access to these services, Irish businesses would experience delays, restrictions or impediments in bringing products and services to market.

10 TTIP – Initial EU position paper on Technical Barriers to Trade July 2013

Rationale:

1. To respond to the needs of Irish businesses by providing the technical quality infrastructure and services befitting the requirements of the business and regulatory environments. To provide these services in an efficient and timely manner with the objective of ensuring that businesses, particularly SMEs, achieve compliance and gain competitive positions; and
2. To respond to the needs of policy makers, regulators and enforcement and market surveillance bodies, with whom NSAI has shared objectives, to provide relevant and appropriate technical services for the benefit of businesses and consumers.

Objectives:

1. Enhance the competitiveness and performance of Irish-based manufacturers and service providers through access to standardization;
2. Provide new businesses and up-stream researchers and innovators with the opportunity to take advantage of international standardization and measurement research;
3. Support national regulators and enforcement bodies through the provision of conformity assessment schemes enabling Irish businesses to gain market access for EU regulated products;
4. Safeguard fair trade practices and the protection of consumers for businesses using regulated measuring instruments and selling goods by measurement; and
5. Provide the technical quality infrastructure necessary to enable social, economic and technical challenges to be effectively addressed nationally, within Europe and globally.



Performance Indicators

Activities under this theme are aimed at maximising business and societal benefits from NSAI's core products and services. Customer satisfaction, together with captured data on service outputs and numbers of businesses and individuals engaging with the various services, are the principal indicators of whether NSAI meets its objectives under this strategic theme. Throughout the lifetime of the strategy, relevant performance indicators will be identified in internal business plans and annual Departmental service level agreements to monitor achievements.

	Standards	Metrology	Conformity Assessment
	Objectives	Desired Outcomes	Initiatives
1.	Enhance the competitiveness and performance of Irish-based manufacturers and service providers through access to standardization.	<p>Strengthened standardization services priority setting and programming.</p> <p>A responsive publication, sales and distribution service for standards.</p>	<p>Enhance strategic decision making and standardization work programming through the establishment of a Standards Advisory Committee.</p> <p>Address changes in Irish national electro-technical standardization triggered by the Commission for Energy Regulation (CER) decision.</p> <p>Support standardization work in the construction and allied trades sector through the establishment of a Construction Standards Consultative Committee.</p> <p>Implement and publish Irish versions of European and relevant international standards and ensure their prompt dissemination to libraries, institutions and online sales outlets.</p> <p>Implement a sales strategy for standard publications that ensures value-for-money access to standards.</p>
2.	Provide new businesses and up-stream researchers and innovators with the opportunity to take advantage of international standardization and measurement research.	<p>Cutting-edge standards and measurement knowledge and skills targeted to the needs of industry and accelerating the uptake of research outputs in line with the research and innovation agenda.</p> <p>Optimised European and international standardization systems as a channel for market intelligence and competitive advantage for emerging Irish-based businesses and the research and innovation communities.</p>	<p>Actively participate with European partners in the European Metrology Programme for Research and Innovation (EMPIR).</p> <p>Deepen interaction with third level institutions and the research and innovation and technology transfer communities in the energy, healthcare and ICT sectors.</p> <p>Increase participation of research and innovation communities in standardization.</p>

<p>3. Support national regulators and enforcement bodies¹¹ through the provision of conformity assessment schemes enabling Irish businesses to gain market access for EU regulated products.</p>	<p>Highly reputable, customer focussed conformity assessment services to enable:</p> <ul style="list-style-type: none"> ▶ CE marking of: <ul style="list-style-type: none"> ▶ Medical Devices; ▶ Construction Products; and ▶ Measuring Instruments. ▶ Placement of non-CE marked products, processes and services on the market. <p>As the national Type Approval Authority, deliver timely national and European conformity assessment services for the automotive sector.</p>	<p>Enable and facilitate market access nationally and internationally for Irish automotive manufacturers and service providers.</p> <p>Provide Medical Device CE mark approval services as a Notified Body to facilitate market access for Irish-based and international companies to the European medical market.</p> <p>Support Government Departments to implement EU requirements in the automotive sector.</p> <p>Provide appropriate certification schemes and inspection services to support Government Departments and Agencies in demonstrating compliance with EU requirements in the area of food and water.</p> <p>Support regulators with technical expertise, schemes and initiatives related to the construction sector.</p>
<p>4. Safeguard fair trade practices and the protection of consumers for measuring instruments and goods sold by measurement.</p>	<p>Effective enforcement practices targeted at achieving 95% trader compliance across all sectors countrywide.</p> <p>Increased awareness of the importance of compliance amongst traders using measuring instruments and selling packaged goods.</p>	<p>Develop the enforcement infrastructure based on risk-based enforcement to help drive compliance levels to 90-95% across all instrument categories.</p> <p>Ensure the adequate provision of nationwide measuring instrument verification services.</p> <p>Restore full geographic inspection and verification services and deliver flexible 24/7 coverage as required.</p> <p>Develop enforcement plans for each utility sector.</p> <p>Raise awareness and promote the activities of Legal Metrology in pursuit of consumer protection and trade confidence.</p>
<p>5. Provide the technical quality infrastructure necessary to enable social, economic and technical challenges to be effectively addressed nationally, within Europe and globally.</p>	<p>Strong networks and infrastructure to support participation in European and international standardization.</p>	<p>Prioritise and promote Irish input to European and international standardization.</p> <p>Partner with sector specific interest groups and public policy makers.</p> <p>Increase participation of societal groups in standardization.</p> <p>Maintain and improve Ireland's measurement system to the harmonised global SI system and develop primary standards in selected areas.</p>

11

See examples of NSAI interaction with Government Dept and Agencies, Fig. 2, pg 9.



Business Excellence

It is well recognised internationally that standards are pivotal in gaining access to markets and lessening the time and effort involved in product development. NSAI plays a key role in engaging with interest groups who can avail of using standards directly or through the knowledge network available in standards development.

A 2013 published German study¹² looked at the effects of a broad range of formal and informal management system and product standards on business success. Based on a surveyed return from more than 300 companies, it found that formal standards and technical specifications offered by official standardization organisations such as NSAI were far more beneficial than in-house or trade-related standardizations.

The 2015 NSAI behaviours and attitudes study¹³ of 250 Irish companies found that four in six people believe that standards help speed technology transfer and that standardization has enabled firms to gain economies of scale.

Through providing a comprehensive suite of conformity assessment services, NSAI is acknowledged as a significant resource to Irish business and regulators across a spectrum of sectors. Through the strategy, NSAI will build on industry linkages and develop services that facilitate organisations to demonstrate to their stakeholders – customers and their downstream customers, specifiers, regulators, employees, neighbours and other interested parties – that they conform to international best practice.

12 German Standardization Panel (DNP) Report on indicators 2013

13 Standards: Usage & Attitudes 2015 B&A

Rationale:

1. To provide businesses with internationally recognised, benchmarked proof of their management systems;
2. To ensure businesses are aware of and realise the benefits of implementing management system standards as a means of gaining market share, competitiveness and growth;
3. To actively engage with key stakeholders and disseminate technical knowledge; and
4. To ensure Irish businesses and researchers can access appropriate levels of measurement traceability.

Objectives:

1. Target and promote key NSAI activities aimed at building capacity and delivering growth for Irish businesses;
2. Target and promote NSAI activities to the research and innovation communities and third level institutions;
3. Target and promote the use of standards and benefits of standardization to SMEs and emerging businesses; and
4. Maintain a repository of technical knowledge.



Performance Indicators

Activities under this theme are aimed at increasing awareness of the benefits of standards, metrology and conformity assessment services. Take-up by businesses of these services is an important indicator of whether the market operators and the research and innovation communities recognise the opportunities provided by them. Sales of published documents, along with attendance at workshops and seminars also provide indications of whether a service, standard or scheme is seen as providing value. Throughout the lifetime of the strategy, relevant performance indicators will be identified in internal business plans and annual Departmental service level agreements to monitor achievements.

	Standards	Metrology	Conformity Assessment
Objectives	Desired Outcomes	Initiatives	
1. Target and promote key NSAI activities aimed at building capacity and delivering growth for Irish businesses.	Growth in use and awareness of best international business practices for Irish businesses of all sizes.	<p>Expand the use of management system certifications as the economy grows.</p> <p>Facilitate a smooth transition to ISO 9001:2015, ISO 14001:2015, OHSAS 18001, and the new ISO 45001.</p> <p>Promote the uptake of businesses using the Excellence Through People human resources management scheme.</p> <p>Provide niche certification schemes to allow industry create distinctive market advantage.</p> <p>Deliver ISO-based management system schemes for businesses in the food sector.</p> <p>Support initiatives in the National Energy Efficiency Action Plan and Energy Performance of Buildings Directive including certification to ISO 50001.</p> <p>Promote the benefits of management systems for businesses of all sizes across all sectors.</p> <p>Support the development of the medical devices business cluster in the west through activities in the local Galway office.</p>	
		<p>Offer a high quality, efficient measurement calibration service through increased automation and service improvement.</p>	
	Support high tech sectors in the semiconductor, pharmaceutical, medical device and service industries.	<p>Improve and extend the range of precision measurement and calibration activities developed through measurement R&D.</p> <p>Deliver expert advice on complex measurement-related matters.</p>	

2.	Target and promote NSAI activities to the research and innovation communities and third level institutions.	Expanded network of contacts in key sectors of research and wider use of NSAI standards and metrology services.	Build strong relationships with key research stakeholders engaged in Horizon 2020 and Science Foundation Ireland.
			Partner with European NMI's, industry and third level institutions in metrology-related research areas.
3.	Target and promote the use of standards and benefits of standardization to SMEs and emerging businesses.	Enhanced awareness and impact of using and developing standards in a dynamic innovation environment.	Implement a programmed communications strategy for SMEs and entrepreneurs.
			Support pilot studies on the commercial benefits of working with standards in innovation.
		Wide engagement with third level institutions on standardization.	<p>Improve methods of knowledge dissemination in the field of metrology to a wider audience (e.g. technical guides, webinars) and publication of research papers.</p> <p>Deliver a programme of engagements for third level institutions on standardization, metrology and conformity assessment.</p> <p>Promote the importance of standards as a module in third level Engineering and Science courses.</p>
4.	Maintain a repository of technical knowledge.	Provide a quality customer service for queries related to standards, conformity assessment and other technical regulatory topics.	<p>Maintain NSAI's role as the national product contact point for EU market access for non-regulated products and technical specifications notifications.</p> <p>Carry out a feasibility study to assess the demand for a wider technical knowledge service.</p>



Global Business Environment

The global business environment reflects changes in society's values, attitudes and priorities. These cultural changes impact on businesses of all sizes that then need to adapt to the changing environment and take account of the latest evolutions in best international business practices governed by industry-led quality management systems.

As the official State body for standardization, NSAI is looked to by business and the public at large to be the authority on matters of best engineering practice, management systems and product compliance with national and European regulations. The NSAI Act itself requires NSAI to:

Participate in activities of other national, regional, European or other international standards bodies having objectives or functions similar or relevant to the objectives or functions of the Authority

The purpose of this is twofold:

1. NSAI needs to be in a position to enable Irish businesses gain access to the broader European and world markets as well as to inform stakeholders on matters relating to compliance.
2. NSAI must keep abreast of both the markets and developments relating to the conformity assessment of products and services both in Ireland and internationally.

At this point in time, arguably the most significant international technological development is the digital industrial revolution and the wider application of ICT and related technological developments in our daily lives. It is widely believed the world is embarking on a new industrial revolution, regarded as the fourth such quantum leap forward and hence commonly described as Industry 4.0. Increasingly, the value chain associated with manufacturing a product (the suppliers, factory, distribution chain, even the product itself) is digitally connected – the Industry 4.0 concept overlaps with developments like the Industrial Internet of Things and Smart/Advanced manufacturing. The EU is responding to this regionally through the platforms of the Digital Single Market and Horizon 2020 with standards seen as a core element of both.

Standards bodies, at national, European and global levels, face enormous challenges in providing standards which codify the rapid rate of technological change. NSAI is involved with initiatives to make the European and global standards organisations more nimble, cohesive and responsive.

NSAI is ideally positioned to exploit the knowledge and expertise available through the networks created by European and international memberships of standardization, conformity assessment and metrology organisations.

Rationale:

1. To increase the NSAI knowledge base through international conformity assessment activities to feed into core competences;
2. To make best possible use of the opportunities created through international memberships; and
3. To use standards and access to standardization work to advance the position of Irish-based companies in availing of opportunities in the digitisation of manufacturing (e.g. Industry 4.0), services and society.

Objectives:

1. Enable medical device manufacturers to efficiently access the EU and global markets;
2. Build on access to global businesses facilitated by international conformity assessment services to enhance knowledge and competences in the national interest;
3. Leverage membership of European and international organisations in the national interest; and
4. Assist Irish businesses to get ready and compete when met with the global challenges of climate change policies.



Performance Indicators

Activities under this theme are aimed at ensuring NSAI's international memberships and global presence are proactive conduits for businesses to participate and keep pace with the evolving technology, digital and connectivity developments that will change their operating environments. Throughout the lifetime of the strategy, relevant performance indicators will be identified in internal business plans and annual Departmental service level agreements to monitor achievements.

	Standards	Metrology	Conformity Assessment
Objectives	Desired Outcomes	Initiatives	
1.	Enable medical device manufacturers to access the EU and global markets.	Maintain the presence of an Irish-based CE Mark approval and Notified Body for the highest risk medical devices (Tier 1).	<p>Facilitate a smooth transition for clients to the EU Medical Device Regulation and revised ISO 13485 standards from 2017.</p> <p>Target increased market share of medical devices business from Irish-based companies and globally.</p> <p>Develop an MDSAP¹³ combined audit service as this programme becomes available.</p>
2.	Build on access to business facilitated by international conformity assessment services to enhance knowledge and competencies in the national interest.	Enhanced NSAI international recognition and reputation among US and internationally-based companies with existing or potential Irish connections.	<p>Target and promote appropriate mainstream conformity assessment packages to US and global players with a focus on those that have, or may develop Ireland based operations.</p> <p>Provide EU and UNECE approval services for automotive vehicles, components, and accessories to facilitate market access for Irish-based and international companies to the European automotive market.</p> <p>Use our membership of the IQNET partner network to ensure Irish businesses can achieve wider recognition and market access.</p>
3.	Leverage membership of European and international organisations ¹⁴ in the national interest.	<p>Irish businesses benefit from the expertise and international best practice made available through NSAI membership of international organisations.</p> <p>Optimum participation and influence of Irish stakeholders in decision making on standardization.</p>	<p>Benchmark NSAI measurement capabilities and knowledge gain against European counterparts.</p> <p>Disseminate knowledge gained through participation in European and international forums.</p> <p>Achieving best outcomes from international representation e.g. board and/or officer role in a European or global standards body.</p> <p>Implement programmes resulting from increased participation/influence by sector.</p>
4.	Assist Irish businesses to get ready and compete when met with the global challenges of climate change policies.	Supports to the emerging Green economy.	<p>Provide and promote relevant standards and certification services to assist Irish business demonstrate sustainability.</p> <p>Engage with SEAI and other appropriate agencies to provide the necessary technical specifications addressing energy management and alternative energy resources.</p>

Delivery and Performance Management



Three-Year Business Plans

This public-facing, five-year strategic plan is linked to detailed three-year business plans for each of the core functions of Standards, Certification, Metrology, and Support Services for the 2016 to 2018 period. A mid-term review of the strategy is planned for the second half of 2018 when the Q2 performance data is available. Based on that review, the business plans (of the NSAI core functions) will be updated with work programmes for the final two years of the strategy (2019 to 2020).

Annual Operational Plans

The strategic plan will be achieved through the development and implementation of annual operating plans which are submitted to the NSAI Board for approval. These plans provide details of work programmes and key deliverables which support the delivery of services and the achievement of the strategic objectives.

Reporting on Performance

The achievement of the strategic and annual operational plans will be monitored quarterly through a range of Key Performance Indicators (KPI's). This will be supplemented by a Service Level Agreement (SLA) agreed annually with the Department of Jobs, Enterprise and Innovation, which will inform the Minister on the overall performance of the Authority.

Key Risks

As with all long-term planning, the environment is subject to change and competing priorities may emerge during the term of the strategy which may be within or outside the control of the Authority. The functional elements of the plan have been assessed in the context of primary risks which could negatively or positively impact on the achievement of the strategic objectives.





Our People and Processes

People

NSAI's staff, network of technical experts, and service delivery partners are central to the success of this strategic plan. During its lifetime, the Authority will face significant challenges in resourcing, succession planning and the retention of key expertise and knowledge built up over many years. For these reasons, and because during the period of financial emergency measures most functions have reduced their capacity to an unsustainable level, a large part of the staffing investment is planned for 2016 and 2017. NSAI will also continue to develop the application of alternative service delivery (ASD) as appropriate within risk management parameters.

In parallel with resourcing, NSAI will invest in building capacity for all its constituents of staff, experts and service providers through learning and development solutions which will include the transfer of knowledge to the next generation of experts.

Quality

NSAI is committed to consistently addressing stakeholder expectations and meeting the requirements of the management standards, such as ISO 9001 and ISO/IEC 17021¹⁵, to which it operates as well as continually improving its effectiveness. We will achieve this by focussing on our customer and other stakeholder needs and by continued positive and proactive staff engagement in the day-to-day operation and on-going development of our services. NSAI's management systems will be an essential component contributing to the successful achievement of our strategic objectives and outcomes.

Technology

Cutting-edge technology, changing demographics and new work practices are creating new demands and opportunities for the Authority. This challenges the traditional notions of how we work with, access, and consume information. In order to address the challenges envisaged in the strategy, a specific ICT strategy will be prepared which will invest in:

- ▶ Solutions that facilitate engagement and easy access to standards content for its network of experts and stakeholders;
- ▶ Business solutions that are open, adaptable and robust to reflect the operational needs of the organisation and technological developments; and
- ▶ Improved data interfaces and reporting enabling greater transparency and performance reporting.

Finances

This strategic plan envisages continued growth in NSAI revenue streams and is based on a detailed model for each function over each of the five years, while making a number of assumptions on resourcing, market demand in both self-funded and exchequer-funded services, inflation, wage inflation, the cost of external services, and exchange rates. After several years of a reducing demand on the exchequer, this will mean a short-term increase in our funding requirement until the investment in the fee-generating services pays dividends and the contribution to the overall cost increases (Figures 4 & 5).

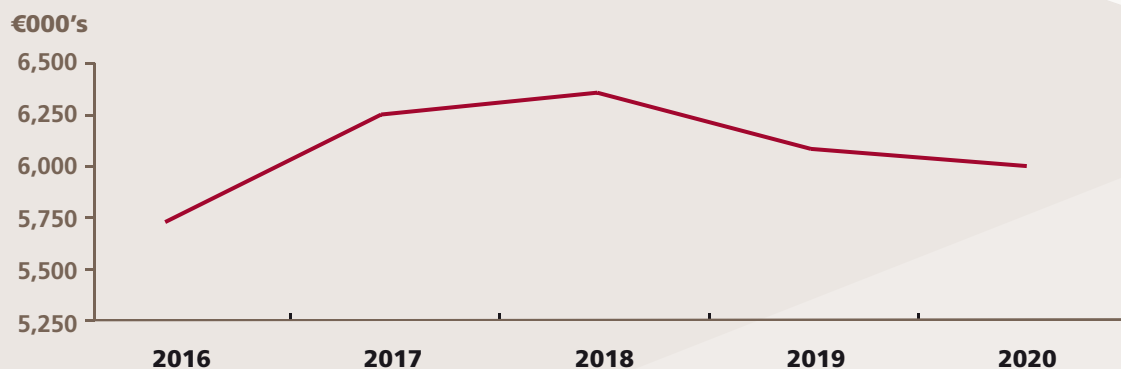


Figure 4: NSAI Funding Requirements

15 ISO 9001 – Quality Management Standard and ISO/IEC 17021 – Requirements for bodies providing audit and management systems

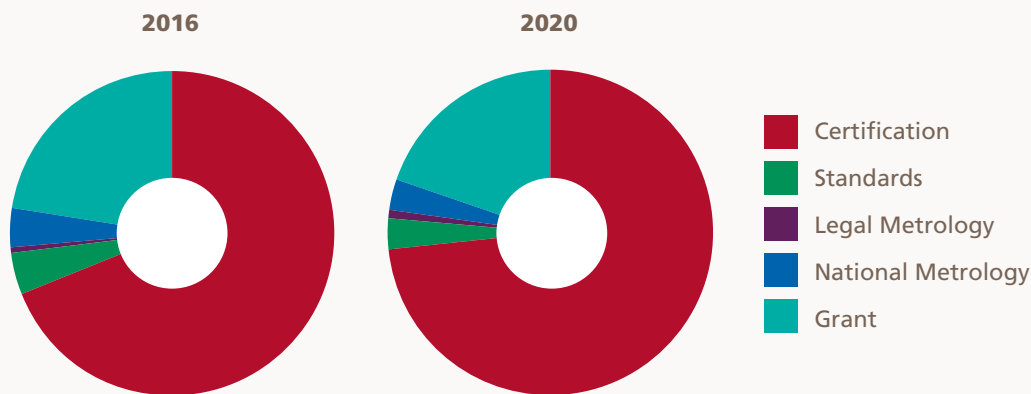


Figure 5: NSAI Sources of Funding Profile 2016 & 2020

Public Sector Reform

The public sector reform plan is a key part of the strategic response to the economic conditions faced by the country and has played a central role in Ireland’s recovery in recent years. Since the period of financial emergency measures, NSAI has delivered a 30% reduction in staff numbers and associated grant allocations. Within this constrained environment, the Authority has continued, and in many cases expanded, its service offerings while increasing revenue streams across the range of fee-returning services, which has supported the ongoing public service mandates of the organisation.

However, sustained and effective reform is crucial if the Authority is to continue to deliver essential services in an environment of significantly reduced staff numbers and strict financial envelopes. Within this strategic plan, the Authority will continue to focus on increasing efficiency coupled with the delivery of the best possible outcomes for its stakeholders. This will be made possible through the prioritisation of services, business process engineering, ICT solutions, organisational design/restructuring and staff development.

NSAI is also committed to supporting central initiatives aimed at economic recovery and will continue to engage with state bodies and regulators, assisting in the discharge of national commitments through strategic alliances and memorandums of understanding between agencies with whom NSAI has shared objectives to provide relevant and appropriate technical services for the benefit of businesses and consumers.

Appendix 1

Assessment of NSAI Functions Criteria

Assessment Criteria – Services/Functions Review

Group	Criteria	Explanation
Market, Driver	Legal/Mandatory Requirement	Is NSAI responsible under primary legislation, secondary, notified body, Department or agency request?
	Market Demand	How strong is the market demand for this service in Ireland?
	Stakeholder Commitment	How committed are the relevant stakeholders (government, regulators, industry) to NSAI providing this?
Impact	Benefit to Society (Public Good)	Benefit to citizen and general quality of life in Ireland.
	Benefit to Irish Business (Business Good)	Benefit to Irish-based business in competitively supplying domestic and export markets.
	Corporate Social Responsibility (Ethical)	Contribution to Ireland's international standing in ethical behaviour, workplace practices, environmental management, community etc.
Exclusivity	Few Comparable Products	Is this service the only way for a company to fulfil this requirement?
	Few Alternative Service Providers	Are there other assessable providers (private sector or international) of the same service?

Appendix 2

Membership of International Standards Organisations

Membership of International Standards Organisations

CEN	European Committee for Standardization	Standards
CENELEC	European Committee for Electrotechnical Standardization	Standards
ISO	International Organisation for Standardization	Standards
IEC	International Electrotechnical Commission	Standards
Euramet	European Association of National Metrology Institutes	National Metrology
BIPM	International Bureau of Weights and Measures	National Metrology
OIML	International Organisation of Legal Metrology	Legal Metrology
Welmec	European Co-operation in Legal Metrology	Legal Metrology
IQnet	International Certification Network	Certification
EOTA	European Organisation for Technical Approvals	Certification (Agrément)

Appendix 3

Standards Committees

Standards Committees

Construction

NSAI/TC 003	Concrete Committee
NSAI/TC 008	Timber
NSAI/TC 010	Water Supply
NSAI/TC 011	Wastewater Engineering
NSAI/TC 012	Slating and Tiling
NSAI/TC 015	National Eurocodes
NSAI/TC 016	Fire Safety
NSAI/TC 017	Roads Standards
NSAI/TC 019	Energy Performance of Buildings
NSAI/TC 031	Building Services
NSAI/TC 040	Retrofit of existing dwellings
NSAI/TC 046	Construction Products
NSAI/TC 058	Reactive pyrite in sub-floor hardcore material
NSAI/TC 061	Chimneys
NSAI/TC 059	Energy

Engineering

NSAI/TC 001	Gas
NSAI/TC 006	Electrotechnical
NSAI/TC 033	Cranes
NSAI/TC 050	Petroleum Exploration and Extraction

Environment

NSAI/TC 004	Environmental
NSAI/TC 053	Swift 7 Verification of bagged coal

Food

NSAI/TC 013	Food Industry
NSAI/TC 062	Biotechnology

Health and Safety

NSAI/TC 028	Occupational health and safety managements systems
NSAI/TC 024	Safety of Goalposts
NSAI/TC 025	Hurling and Camogie Safety
NSAI/TC 047/ SC14	Cabin Air quality (Aircraft)
NSAI/TC 054	Swift 8 Carbon monoxide detectors

ICT

NSAI/TC 002	ICT
NSAI/TC 021	Health Informatics

Healthcare

NSAI/TC 005	Health Care
NSAI/TC 042	Cosmetics Advisory
NSAI/TC 047/ SC13	Tattooing Services

Quality and Risk

NSAI/TC 007	Quality Management
NSAI/TC 022	Beauty School Management
NSAI/TC 045	Innovation Management
NSAI/TC 043	CASCO Advisory
NSAI/TC 030	Risk Management
NSAI/TC 048/ SC 09	Asset Management

Services

NSAI/TC 035	Tourism Services
NSAI/TC 038	Management Consultants Services
NSAI/TC 052	Beauty Salon Services

Miscellaneous

NSAI/TC 018	Corporate Responsibility
NSAI/TC 023	Universal Design Standards Consultative Committee
NSAI/TC 049	Nanotechnologies

