

**STANDARDS, ACCREDITATION AND MEASUREMENT:  
SUPPORTING OUR ECONOMY**

**Standards and Conformance Infrastructure Review  
A discussion document**

**August 2006**

## **Disclaimer**

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## Information for Those Making Submissions

Submissions in relation to this discussion paper are invited from standards and conformance infrastructure bodies, other agencies, industry stakeholders and interested members of the public. Submissions will be considered in the development of policy recommendations to the government.

To aid respondents in making submissions, questions for discussion can be found in the final two sections of the document.

Submissions should be sent to:

Standards and Conformance Infrastructure Review  
Attention: James Dalton  
Regulatory and Competition Policy Branch  
Ministry of Economic Development  
PO Box 1473  
WELLINGTON

Emailed submissions are also welcome. They should be addressed to: [standards.conformance@med.govt.nz](mailto:standards.conformance@med.govt.nz) Please include "Submission on the Standards and Conformance infrastructure review" in the subject line.

Submissions may be subject to disclosure under the Official Information Act 1982. Persons making submissions that include commercially or otherwise sensitive material that they wish the Ministry to withhold under the Act should clearly identify the relevant information and the applicable grounds under which the Ministry could withhold the information.

The closing date for submissions is **Friday 24 November 2006**.

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# Executive Summary

## The scope and process of this review

1. This review is concerned with the New Zealand standards and conformance infrastructure, which includes the standard-developing agency, two accreditation bodies, and two measurement bodies:
  - Standards New Zealand (SNZ), the operating arm of the Standards Council; a Crown entity and the main body developing consensus-based Standards in New Zealand;
  - International Accreditation New Zealand (IANZ) an operating arm of the Testing Laboratory Registration Council (TLR Council); an autonomous Crown entity which provides independent third-party accreditation of the competence of testing laboratories and inspection bodies;
  - The Joint Accreditation System of Australia and New Zealand (JAS-ANZ), an international organisation set up by Treaty between Australia and New Zealand, which provides independent third-party accreditation of the competence of certification bodies and inspection bodies;
  - Measurement Standards Laboratory (MSL) a unit of the Crown Research Institute Industrial Research Ltd; which provides for the use of uniform units of measurement of physical quantities and for the establishment and maintenance of Standards of physical quantities; and
  - Measurement and Product Safety Service (MAPSS) a unit of the Ministry of Consumer Affairs, which has responsibility for legal trade measurement and enforces the Weights and Measures Act 1987.
2. The review also discusses the roles of conformity assessment bodies (private and public testing laboratories, inspection and certification bodies) and regulators (government agencies in a range of sectors) and their interactions with the infrastructure.
3. The overall objectives of the review are to:
  - evaluate New Zealand's standards and conformance infrastructure against New Zealand's specific requirements and international trends and emerging new models;
  - evaluate how the standards and conformance infrastructure can contribute to, and improve the competitiveness of, New Zealand suppliers of products and services, in the context of improved market access, innovation and quality; and
  - identify any other issues that may need to be addressed in order to enhance the contributions made by the standards and conformance infrastructure towards achieving the government's objectives, including managing certain risks from imports.

4. This paper has been written to seek comment from stakeholders on New Zealand's standards and conformance infrastructure. It follows a preliminary report on the infrastructure and a separate review into the role New Zealand's standards and conformance infrastructure plays in encouraging innovation<sup>1</sup>. After submissions on this paper are received and analysed, further work will take place to develop specific policies for the government's consideration.
5. This review forms part of the government's economic transformation agenda. Standards, accreditation and measurement play an important role in New Zealand's business environment and can be critical to business success. In many cases they also support government regulation. This work will be closely aligned to the wider Ministerial Review of Regulatory Frameworks which seeks to remove unnecessary regulatory constraints on economic growth and achieve continuous quality improvement of regulatory frameworks and processes.
6. This review focuses on the New Zealand infrastructure bodies, but it is important to note that for some New Zealand products and processes the functions of measurement, standardisation or accreditation may be carried out by non-New Zealand agencies. It should also be recognised that there are other government bodies that carry out activities around standards and conformance such as the Food Standards Australia New Zealand and the Ministry of Agriculture and Forestry. These bodies are not considered as part of the infrastructure in this review, although there is scope to consider how they interact with the five infrastructure bodies we have identified.
7. There is some discussion of resourcing issues in this paper. This is done without prejudice to future decisions made by government. Should the review recommend increased resourcing, this would require a separate process to be undertaken.

### **The contribution of standards and conformance**

8. A standards and conformance system can contribute to the objectives of managing health, safety and environmental risks, facilitating domestic economic development, and facilitating international trade. Each part of the standards and conformance system (the infrastructure, regulators and conformity assessment bodies) has a role to play in contributing to these objectives. **Pages 21-27 describe how the system supports each objective.**
9. Management of health, safety and environmental risks are primarily in the regulated sector, where standards can support regulatory objectives, as an alternative to, or as a support for, legislative methods. Economic efficiency is facilitated as standards increase compatibility and economies of scale and aid consumer confidence. International trade is facilitated by minimising unnecessary differences between different jurisdictions' standards and conformance regimes.

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<sup>1</sup> For further information, see: [www.med.govt.nz/templates/ContentTopicSummary\\_\\_\\_\\_13854.aspx](http://www.med.govt.nz/templates/ContentTopicSummary____13854.aspx)

10. Work to date has established that the New Zealand infrastructure is strong, well-respected and a major contributor to the government's objectives in standards and conformance. Its strength is necessary for the economic transformation goals the government has set. The Ministry of Economic Development is concerned to ensure the sustainability of the infrastructure and to address any gaps or areas where improvements can be made.

### **Drivers of increased standardisation and internationalisation**

11. Globally standards and conformance has become more important over time. There is demand by consumers for safer and higher quality products, resulting in raised minimum standards and a focus on best practice standards. The increased pace of technological change requires much more rapid development and amendment of standards and/or a shift to performance-based standards. Increased social and environmental concerns are another driver of standards and can lead to standards and conformance applying in areas of activity not previously covered.
12. Traditionally, each national economy has set its own standards and procedures (although the need for inter-operability drove an early international approach in the electrical and telecommunications sectors). As the levels of international trade have grown, so have the worldwide impacts of standards on trade. Trade liberalisation and lowered tariffs have seen the impact of non-tariff barriers to trade – such as standards and conformance – increase in importance. For a country with a small domestic market such as New Zealand, it can be argued that the minimisation of unnecessary barriers to trade is even more important.
13. The roles of third-party accreditation and traceability in measurement have also grown in importance as the sources of imports become more diverse. The ability to rely on conformance of products from overseas is important to New Zealand, both to ensure that all products meet regulatory requirements and to support fair competition. New Zealand businesses are also significant importers of components, as part of global supply chains.
14. From an export perspective, international recognition and acceptance of New Zealand's accreditation and other infrastructure is essential. Where the accreditation of a conformity assessment body is internationally recognised, this reduces duplicate requirements and speeds up compliance times significantly. New Zealand is also party to a range of Mutual Recognition Agreements, Free Trade Agreements and Closer Economic Partnerships and regulator-to-regulator agreements or co-operations. These provide frameworks for co-operation and negotiating arrangements that reduce technical barriers to trade and build the confidence overseas trading partners have in the New Zealand infrastructure. **See pages 44-49 on accreditation issues.**

## Regulation and standards and conformance

15. Rapidly changing technology and international regulatory practices are creating demands for more flexible safety regimes modelled on performance based outcomes rather than specific and highly prescriptive requirements. This calls for regulatory regimes that are consistent with international best practice and that deliver cost effective safety and performance outcomes.
16. Whilst recognising that governments employ technical regulations (mandatory standards) to achieve legitimate objectives, the World Trade Organisation's Agreement on Technical Barriers to Trade (the TBT Agreement) provides that technical regulations should not be more trade-restrictive than is necessary to fulfil a government's legitimate objective.
17. In New Zealand, the use of the standards and conformance infrastructure by regulators is variable and it is possible that there is some efficiency that can be gained by a greater awareness and use of the infrastructure. The impact of domestic regulations on export sectors of the economy can be significant. New Zealand generally has regulatory regimes that rely heavily on suppliers' declarations of conformance whereas many of New Zealand's trading partners place more emphasis on pre-market approvals. Co-ordination of the different strategies to ensure compliance is an important aspect of trade facilitation.
18. Some regulators are very aware of their impact on export markets (agriculture is a significant example). Others may not see that they have a role or even a mandate to consider the impact of their regulatory regime on New Zealand's export sectors. This paper asks what the role of standards and conformance should be in supporting quality regulation. **See pages 53-56 for regulation issues.**

## Alignment of the New Zealand infrastructure

19. Currently there is a range of relationships between the infrastructure bodies, but only one (relatively infrequent) forum for all five bodies to meet. When Australia first comprehensively reviewed its standards and conformance infrastructure, it was found that many issues developed as a result of individual organisations responding to change without a shared commitment to strategic directions<sup>2</sup>. Risks may be better managed and opportunities maximised if the New Zealand infrastructure is more closely aligned.
20. The role of the Ministry of Economic Development (MED) could also potentially evolve. Currently it is responsible for regulatory issues in trade negotiations, and, on behalf of the Minister of Commerce, the Ministry also manages the Crown's ownership interests in some of the infrastructure bodies. This paper, however, points to options where MED could take a more active coordinating role. **See pages 31-34 for governance and alignment issues.**

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<sup>2</sup> Department of Industry, Science and Technology (1995) *Linking Industry Globally: Report of the Committee of Inquiry into Australia's Standards and Conformance Infrastructure*.

21. One area where greater alignment could improve both the efficiency and effectiveness of the system is information provision. Better information exchange between the infrastructure bodies, between regulators and the infrastructure, and with clients, could be achieved. A range of options for this are discussed under the heading of information as well as in the section on regulation. **See pages 35-36 for information issues.**

### **The ability of the infrastructure to respond to growing complexity**

22. Where New Zealand standards and conformance services have been established they are well regarded internationally. Looking to a more complex future, however, it is necessary to ask whether the New Zealand economy will be sufficiently large to fund, of itself, the full range of standards and conformance services necessary for economic prosperity.
23. This paper generally takes the view that New Zealand can rise to these challenges. Some of the answers will lie in working closely with other governments in the international community. New Zealand will also need to be innovative and focused on meeting future challenges in standards and conformance. **See pages 42-44 for measurement issues.**
24. The current funding principles applied to the standards and conformance infrastructure are that measurement is a core public service activity, funded through the science infrastructure and consumer affairs. There is a public interest in establishing standards and accreditation bodies, but as with many other Crown entities, government expects these agencies to fund themselves by charging fees. **See pages 16-17 for funding issues.**
25. Standards development is supported by voluntary contributions of time and knowledge, sponsorship and publication charges. Standards which are directly in support of regulatory (public interest) outcomes are expected to be funded out of the Crown Vote of the government agencies responsible for the applicable regulation. For businesses, participation in standards development is voluntary, but purchasing and complying with Standards and regulations are a cost of doing business.
26. This document raises questions about the implications of the current model for prioritisation of standards development, adequate participation of stakeholders in the standards process and the ability of New Zealand to influence the development of international standards. **See pages 38-41 for standards issues.**

### **Submissions**

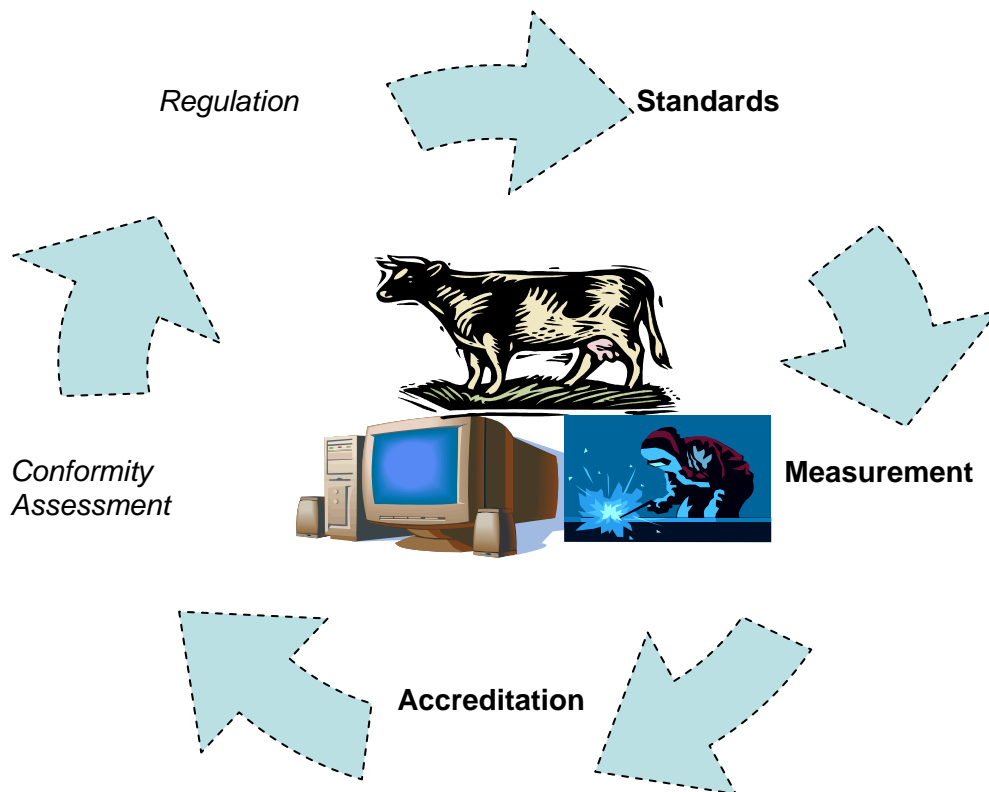
27. Stakeholders are encouraged to make submissions to this review. Specific examples and evidence are particularly helpful. Comment is particularly welcome on:
- whether the issues identified are correct;
  - what the relative importance is of the different issues;

- what the positive and/or negative effects of the options proposed might be; and
- any other options which you think might usefully address the issues in this area.

## Functions of a Standards and Conformance system

28. Most of the products and processes in the economy are affected by the standards and conformance system. There is a huge variety of standards which exist, or are being created, covering many sectors of the economy. Requirements and techniques in measurement, conformity assessment and accreditation are similarly diverse.

Figure 1 Functions of a standards and conformance system (infrastructure functions in bold)



### The scope of standards and conformance

29. A lot of the work of standards and conformance bodies relates to voluntary standards and supports private trade. Standards directly cited by regulators are a smaller segment of the total<sup>3</sup>. Regulations affecting products and processes exist in a number of areas, primarily concerning health, safety and environmental risks.
30. Each product or process type has its own path through the 'system' of standards, measurement, accreditation, conformity assessment and regulation. Not every aspect of the system will be involved in every case. For example, many industry standards exist in the information technology area, with no regulation involved. Equally, some purchasing groups such as

<sup>3</sup> 1,021 standards are cited in legislation or regulation, of which 315 are current New Zealand or joint Australian/New Zealand Standards in the SNZ catalogue. These cited standards however reference a large number of additional standards, so that over half of Standards New Zealand's catalogue in total is relied on by regulation.

European supermarkets have enough market power to dictate the level of conformity assessment which goods must reach, beyond regulatory levels<sup>4</sup>. Some regulations are administered directly by the regulator, with no third-party accreditation or conformity assessment services.

31. This means that each industry sector, firm or organisation, consumer or regulator will have different needs from the standards and conformance system. There is no one standard user of standards and conformance.
32. The following section defines the different functions of a standards and conformance system and provides some information on the relevant infrastructure bodies. The five infrastructure bodies under review undertake the functions of developing standards (SNZ), measurement (MSL and MAPSS) and accreditation (IANZ and JAS-ANZ).
33. In considering how the infrastructure works to deliver on the Government's objectives for the economy and the community and how outcomes might be improved, it is also necessary to consider the functions of regulation and conformity assessment, although regulators and conformity assessment services are not part of the infrastructure. The government's objectives for the standards and conformance system will only be met if the whole system functions well.

## **Standards**

34. Standards are agreed technical specifications for products, processes, performance or services. Most standards are voluntary, but when referenced in legislation they should be considered as one component of "technical regulations". A regulator may also accept a Standard as a means of compliance without it necessarily being referenced in legislation.
35. Standards (with a capital 'S') refer to formal Standards, developed by committees and formally adopted. The process for undertaking this is set out by the International Organisation for Standardisation (ISO), along with the requirements of the Standards Act 1988. The wider term 'standard' (lower case) can also refer to a level or norm which is adopted by a regulator without using the formal Standards committee process, or de facto or informal standards such as proprietary designs that win a position of market dominance.
36. The Standards Council is a user-funded autonomous Crown entity, continuing in existence under the Standards Act 1988<sup>5</sup>. The primary statutory functions of the Standards Council are:
  - to develop Standards and;

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<sup>4</sup> For example, EurepGAP, a scheme where European retailers and their global suppliers have created and implemented a series of sector specific farm certification standards.

<sup>5</sup> The Council was established under the Standards Act 1965 and by virtue of section 3 of the Standards Act 1988 continues in existence.

- to promote, encourage and facilitate the use of Standards in New Zealand, with the object of:
  - improving the quality of goods and services;
  - promoting standardisation and encouraging and facilitating industrial development, trade and commerce; and
  - promoting public and occupational health, safety and welfare.

37. The Standards Council carries out these functions through its operational arm, Standards New Zealand. There were 2,808 Standards in New Zealand in 2005<sup>6</sup>.

### **Measurement**

38. Metrology – the science of measurement - has two branches which are fundamental to the ability to trade: legal metrology and physical metrology.

39. Legal metrology seeks to ensure that goods are exchanged on the basis of recognised, informed and accurate weights or measures by promoting effective market practices and ensuring compliance with those practices. The Measurement and Product Safety Service (MAPSS) in the Ministry of Consumer Affairs has responsibility for legal metrology and enforces the Weights and Measures Act 1987.

40. Physical metrology seeks to provide for the use of uniform units of measurement of physical quantities and for the establishment and maintenance of Standards of physical quantities. The Measurement Standards Laboratory (MSL), a unit in the Crown Research Institute, Industrial Research Limited (IRL), has responsibility for physical metrology and is responsible for providing New Zealand's national measurement Standards. MSL thus holds the most accurate measurement in the country in these areas, and trade measures are traced back to these through IANZ accreditation.

### **Accreditation**

41. Accreditation agencies assess the competency of other bodies to carry out conformity assessment. They use methodologies developed by international organisations and have their competence assessed through a system of peer review. Accreditation agencies are 'third-party' independent assessors.

42. Two organisations supply accreditation services in New Zealand: The TLR Council (through its operational arm, IANZ) and JAS-ANZ.

43. The TLR Council is a Crown entity established under the Testing Laboratory Registration Act 1972. Its primary statutory functions are to promote the development and maintenance of good laboratory practice in testing and good quality assurance practice and to keep registries of organisations that comply. The Council is a user-funded, not-for-profit autonomous Crown entity, and

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<sup>6</sup> Source: Standards Council (2005) *Annual Report for the year ending 30 June 2005*.

receives no direct Crown funding for its operations. It maintains three separate operational units:

- International Accreditation New Zealand (IANZ), an operational arm of the Council, responsible for laboratory and inspection body accreditation;
  - Telarc Limited, a limited liability company accredited by JAS-ANZ that provides certification services alongside other private sector certification bodies throughout New Zealand; and
  - The New Zealand Quality College, an educational arm of the Council.
44. In 1991, the Governments of Australia and New Zealand signed a Treaty to establish the Joint Accreditation System of Australia and New Zealand (JAS-ANZ). The primary functions of JAS-ANZ are to act as an accreditation agency for certification bodies providing quality and environmental management services (ISO 9001 and the ISO 14000 series), product and personnel certification and inspection services.
45. The Treaty was amended in 1998 and a Governing Board was established to oversee JAS-ANZ's operations, comprising six members appointed by Australia, three from New Zealand and the tenth member is the Chief Executive of JAS-ANZ.

### ***Conformity assessment***

46. The term "conformity assessment" is a general term which covers a range of activities. It is generally accepted that "conformity assessment" is the "demonstration that specified requirements relating to a product, process, system, person or body are fulfilled"<sup>7</sup>. It covers testing, inspection, and certification. Supplier's declarations of conformity are sometimes included in the definition.
47. Conformity assessment is supported by metrology and accreditation. Conformity assessment allows the manufacturer of a product, service provider or regulator to demonstrate that the particular characteristics of a product or service comply with domestic or international regulatory requirements or standards.
48. Conformity assessment services are carried out in both the public and private sector. It is generally accepted internationally that competition in these services helps to improve and maintain the quality of services and imposes market disciplines on fees.
49. Conformity assessment began as laboratory testing and testing remains an important component of conformity assessment but other, complementary methods, of conformity assessment have evolved and are still evolving. These include:

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<sup>7</sup> International Organisation for Standardization (2004) *ISO / IEC 17000*, page 4.

- certification to confirm that the conformity assessments carried out do verify compliance with a technical regulation or standard;
- certification that the testing and other assessments carried out to verify adherence to a technical regulation or standard achieve that outcome;
- product quality control, which may include audits of compliance with management and environmental management systems and factory inspections to see that manufacturing processes will guarantee consistent quality;
- personnel certification to ensure that work is being carried out with adequate education, knowledge and experience; and
- inspections, which are usually a process that applies risk management techniques in addition to one or more of the methods described above.

## ***Regulation***

50. Regulators<sup>8</sup> use various types of regulation and intervention to achieve their aims. Many of them cite Standards or rely on Standards in some way. It is important for this review to consider how regulators use (or do not use) standards and conformity assessment because this affects demand for the services of the standards and conformance infrastructure. How (and whether) regulators use Standards also matters for effectively achieving regulatory outcomes, primarily related to health, safety and the environment.
51. There is a wide range of diversity between the various regulators regarding their use of Standards. Some regulators do not use the infrastructure, but set 'standards' or benchmarks of their own without following the internationally prescribed Standards development processes.
52. Some sectors, such as the electrical safety, electro-magnetic compatibility, and medical equipment sectors have adopted international Standards underpinning regional and international certification regimes with extensive recognition (including Mutual Recognition Agreements) in place.
53. Other sectors have more regionally-aligned regulatory regimes, such as the automotive sector. Some sectors have a domestically-focussed regulatory regime, such as building controls, which include criteria specific to New Zealand, for example, seismic designs.

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<sup>8</sup> For the purposes of this review, the 'regulators' we are discussing are primarily those agencies who produce technical regulations regarding products and services.

## Context

### ***Economics of standards: public and private***

54. A general economic principle is that the market is the best determinant of product characteristics – unless market failure exists<sup>9</sup>. There are a number of types of market failure which might justify the need for standards. It is useful to distinguish between ‘private’ and ‘public’ standards in this context<sup>10</sup>.
55. One major market failure in relation to ‘private’ standards is that “a firm that bears the costs of developing a standard by itself cannot generally capture rewards equal to the overall social and economic benefit that accrues from standardisation. As a result, market incentives alone are not sufficient to encourage firms, acting in isolation, to produce as great a degree of standardisation as would be most economically beneficial to the industry or to society at large<sup>11</sup>.” Examples of such standards include the dimensions of freight containers or credit cards and protocols that allow computers made by different vendors to “talk” to each other.
56. Reflecting international practice, in New Zealand the response to the lack of an incentive to develop private standards has been to set up public sector bodies which have a mandate to facilitate collective action to develop standards.
57. While the government has set up the legislative framework for the infrastructure, this does not necessarily imply that the government must directly fund its activities in relation to private standards. As with many other Crown entities, the government expects the agency to fund itself by charging fees. For businesses, participation in standards development is voluntary, but purchasing and complying with Standards and regulations are a cost of doing business.
58. ‘Public’ standards take into account the wellbeing of all consumers as well as industry. These are not simply directed at enabling an industry to work together for better overall productivity. Public standards correct market failures including externalities such as health or environmental risks. In these cases, public standards can either be used in support of, or as an alternative to, regulation. Such standards require public funding, as do other regulatory functions.
59. In New Zealand, this public funding is provided by government agencies responsible for regulation. There is no central ‘standards fund’. Rather, Standards which are directly in support of regulatory (public interest) outcomes are expected to be funded out of the Crown Vote of funds which support their various outcomes.

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<sup>9</sup> The mere existence of market failure does not, of course, mean that government intervention is necessary or optimal.

<sup>10</sup> World Trade Organisation (2005) *World Trade Report*.

<sup>11</sup> National Research Council (1995) *Standards, Conformity Assessment and Trade: Into the 21<sup>st</sup> Century*, page 31.

60. In the New Zealand standards and conformance model, regulatory agencies are expected to purchase from the infrastructure the services they require, much like other clients. Thus, for example, the Electrical Safety Service of the Ministry of Consumer Affairs is a significant purchaser or sponsor of Standards developed by SNZ, and that public money comes from the amount identified as being spent on electrical safety in Vote: Consumer Affairs.
61. The reasoning for this is that, in New Zealand's application of principles of public management and public finance, the intention is to create a clear 'purchaser' and 'provider' of services, even between public bodies. The advantage of this model is that it creates clear expectations for the provider to meet the purchaser's needs.
62. Measurement activities are funded differently. MSL is directly funded as a core part of the science infrastructure. The benefits of scientific expertise and provision of accurate measurement is a public good which has benefits across society and the economy which cannot be quantified and therefore cannot be charged for.
63. There is some discussion of resourcing issues in this paper. This is done without prejudice to future decisions made by government. Should the review recommend increased resourcing, this would require a separate process to be undertaken. Discussion of issues and options regarding resourcing is located under each topic area below (i.e. standards, accreditation, measurement).

### ***International situation***

64. A number of factors drive the growing importance of standards and conformance in the New Zealand and international economy. New Zealand institutions have done well to react to these factors and to play a role internationally where possible. The infrastructure will have to continue to play the best role it can to support the outcomes which New Zealand as a whole seeks.
65. The impact of standards in international trade has grown, in part because of trade liberalisation and lowered tariffs combined with a corresponding growth in the impact of non-tariff barriers to trade. The role of standards has also grown with demand by consumers for safer and higher quality products, the increased pace of technological change and increased social and environmental concerns. The role of third-party accreditation and of traceability in measurement has also grown in importance as the sources of imports become more diverse.
66. Rapidly changing technology and international regulatory practices are creating demands for more flexible safety regimes modelled on performance based outcomes rather than specific and highly prescriptive requirements. This calls for regulatory regimes that are in tune with international best practice and that deliver cost effective safety and performance outcomes.

## The Development of a Single Economic Market with Australia

67. In recent years, the Governments of Australia and New Zealand have given high priority to the development of a single economic market between the two countries. This has seen the development of better trans-Tasman regulatory co-ordination and the development of joint institutions (for example, Food Standards Australia and New Zealand and the proposed trans-Tasman Therapeutic Goods Agency) leading to greater efficiencies for business and governments in both countries.
68. The Trans-Tasman Mutual Recognition Arrangement (TTMRA), which came into effect on 1 May 1998, is a non-treaty arrangement between the Commonwealth, State and Territory Governments of Australia and the Government of New Zealand. It is a cornerstone of a single economic market and a powerful driver of regulatory coordination and integration. Further, the TTMRA is a key instrument in developing an integrated trans-Tasman economy and a seamless market place as envisioned by the Australia and New Zealand Closer Economic Relations Trade Agreement (CER) signed in 1981.
69. The TTMRA is given effect by overarching domestic legislation in both countries. It requires a high degree of co-ordination of trans-Tasman technical regulations, Standards and recognition of conformity assessment.

## New Zealand's international obligations

70. Developments in domestic standards and conformance infrastructures tend to be driven by developments in the international environment rather than in isolation. As a member of the World Trade Organisation, New Zealand has international obligations under the TBT Agreement. Whilst recognising that governments employ technical regulations to achieve legitimate objectives, the TBT Agreement provides that those technical regulations must not be prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade. In other words, technical regulations should not be more trade-restrictive than necessary to fulfil a government's legitimate objective<sup>12</sup>.
71. In addition to its WTO obligations, New Zealand is a signatory to a number of Mutual Recognition Agreements (MRAs), Free Trade Agreements (FTAs) and Closer Economic Partnerships (CEPs) which form part of our broader international obligations. In some areas there are also regulator-to-regulator agreements or co-operations which achieve similar outcomes to MRAs.

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<sup>12</sup> Article 2.2 of the TBT Agreement provides that "such legitimate objectives are, *inter alia*: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, *inter alia*: available scientific and technical information, related processing technology or intended end-uses of products".

72. New Zealand is a signatory to a range of MRAs including:
- the Agreement on Mutual Recognition in Relation to Conformity Assessment Between New Zealand and the European Community;
  - the Asia Pacific Economic Cooperation MRA for Electrical and Electronic Equipment;
  - the Arrangement between the New Zealand Commerce and Industry Office and the Chinese Taipei Economic and Cultural Office of New Zealand in relation to Facilitating Trade in Electrical and Electronic Products;
  - The Trans Tasman Mutual Recognition Arrangement (see above).
73. New Zealand is a signatory to the following FTAs and Closer Economic Partnerships:
- Australia and New Zealand Closer Economic Relations Agreement (1981);
  - The New Zealand and Singapore Closer Economic Partnership Agreement (2001);
  - The New Zealand and Thailand Closer Economic Partnership Agreement (2005).
74. In addition, the Trans Pacific Strategic Economic Partnership between Singapore, Brunei, Chile and New Zealand has been signed but not yet ratified.
75. There are a number of FTAs and CEPs under negotiation, including:
- The New Zealand and China Free Trade Agreement;
  - The ASEAN / New Zealand / Australia Free Trade Agreement;
  - The New Zealand and Malaysia Free Trade Agreement; and
  - The New Zealand and Hong Kong Closer Economic Partnership.
76. These agreements provide frameworks for co-operation and the negotiation of arrangements to reduce technical barriers to trade and promote the confidence of overseas trading partners in the New Zealand infrastructure. For this reason, it is important that New Zealand ensures that its standards and conformance infrastructure can effectively support the objectives of its current preferential trade agreements and any future agreements the government may enter.

77. International arrangements and norms in the areas of standards and conformance are developing over time. Internationally, particularly in Europe, there has been a trend away from unconditional reliance on the multilateral arrangements between accreditation bodies with regulators resuming more control over the accreditation agencies that they are prepared to recognise. New Zealand regulators have always had the ability to recognise, or not recognise, accreditation undertaken by signatories of the voluntary sector Multilateral Agreements (MLAs) that IANZ and JAS-ANZ have joined<sup>13</sup>. However, ultimately, for trade facilitation, it will be important to strengthen those arrangements and the confidence of regulators in them.

### ***Facilitating Innovation***

78. The government has identified a need for economic transformation in New Zealand. Innovation will be a significant contributor to this. Standards and conformance are often seen as a compliance cost for business, but standards can also be a key enabler of innovation and economic growth.
79. A criticism of the standards development process in relation to innovation is the time it takes to reach consensus on a new standard, particularly in areas of rapid technological change. One response to this has been the introduction of an ability for SNZ to produce guidance documents<sup>14</sup>.
80. Stringent standards for product and process performance can encourage firms to innovate to achieve and exceed these standards. If these standards anticipate standards elsewhere they can provide domestic firms with a competitive advantage internationally. Codifying information standards also facilitates technology transfer which can be a basis for further innovative activity. Involvement in standards development can create competitive advantage, particularly if firms secure influence over international standards. In addition, standardisation is not just about producing norms for given technologies in given markets but helps to establish credibility, focus and critical mass in markets for new technologies.
81. Conversely, standards can be barriers to innovation by being rigid or out-of-date, encouraging 'just good enough' behaviour or reducing choice. The increased flexibility offered by performance-based regulation and standards is intended to reduce these negative effects.
82. The issues and options identified in this paper are aimed at enabling the standards and conformance infrastructure, and others, to better support innovation and economic transformation.

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<sup>13</sup> Both IANZ and JAS-ANZ have joined voluntary sector multilateral agreements (MLAs). These are agreements between accreditation agencies in which conformity assessment results from agencies, who are accredited by a Signatory to an MLA, are accepted by other Signatories to the MLA.

<sup>14</sup> See clause 4 of the Standards and Conformance Bill 2005, currently before Parliament.

## Objectives for a Standards and Conformance infrastructure

83. The Ministry has identified three objectives which the Standards and Conformance infrastructure contributes to. Expressed as outcomes<sup>15</sup>, it can be said that a standards and conformance system is intended to ensure that:

- health, safety and environmental risks are managed,
- domestic economic development is facilitated, and
- international trade is facilitated.

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<sup>15</sup> Outcomes are defined in The Public Finance Act 1989. "Outcome" means a state or condition of society, the economy or the environment and includes a change in that state or condition. It normally describes a state or condition that is influenced by many different factors which may operate independently and where attributing change to the activities of one agency is very difficult. "Impact" means the contribution made to an outcome by a specified set of goods and services (outputs), or actions, or both. It normally describes results that are directly attributable to the activity of an agency.

## **Outcome One: Health, safety, and environmental risks are managed**

**Standards** contribute to this outcome when:

*Appropriate and readily accessible standards, compatible with regulatory systems, are available where necessary to support regulation.*

*Standards are consensus-based, transparent, up-to-date and reflect New Zealand expectations on managing risk.*

**Measurement** services contribute to this outcome when:

*Product and process characteristics affecting health, safety and the environment are able to be adequately measured.*

**Accreditation** services contribute to this outcome when:

*Consumers, businesses and the government can rely on conformity assessment results about health, safety and environmental risks.*

**Conformity assessment** services contribute to this outcome when:

*Products and processes sold in New Zealand are able to be assessed against standards.*

*Regulations are supported by appropriate conformity assessment regimes.*

**Regulations** contribute to this outcome when:

*Firms, organisations and the public are encouraged or required to meet New Zealand expectations on managing risks to health, safety and the environment.*

84. Many standards and technical regulations are intended to assist in the management of risks to health, safety and the environment by setting mechanisms and requirements that will minimise such risks.
85. Economic theory provides a rationale for setting standards or regulations in these areas. There are two types of market failure which are likely to occur around health, safety and environmental risks – information asymmetries<sup>16</sup>,

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<sup>16</sup> An example of information asymmetry is when the producer of a good has more information than the consumer (e.g. the presence of ingredients in a processed food).

and externalities<sup>17</sup>. Depending on the severity and likelihood of the risk, the solutions may involve voluntary or mandatory requirements.

86. Both the government and consumers rely on standards to protect public health, safety and the environment. Businesses use standards and conformance to support innovation and development and to maintain a competitive edge. Standards can also support regulations which aim to manage health, safety and environmental risks.

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<sup>17</sup> Externalities are third party benefits or costs which are not captured in the price of a good or service. For example, when a good is bought and sold, neither the seller nor the purchaser typically pays for the environmental harm caused to third parties by its production or consumption.

## **Outcome Two: Domestic economic development is facilitated**

**Standards** contribute to this outcome when:

*Standards ensure compatibility and quality of components and processes with minimised transaction costs.*

*Standards do not act improperly as barriers to market entry.*

*Standards reflect relevant stakeholder interests.*

*Standards encourage innovative and high quality products and processes.*

*New Zealand businesses know how to meet standards and regulatory requirements.*

**Measurement** services contribute to this outcome when:

*New Zealand businesses can access timely, cost-effective and adequate measurement services.*

*Consumers and traders can rely on measurements used for trade.*

**Accreditation** services contribute to this outcome when:

*Conformity assessment services can access appropriate, recognise and cost-effective accreditation*

*Consumers, businesses and regulators can rely on conformity assessment results.*

**Conformity assessment** services contribute to this outcome when:

*New Zealand businesses, organisations and regulators can access timely and cost-effective assessment of their products and processes against standards and regulations.*

**Regulations** contribute to this outcome when:

*Methods of complying with regulation are available and known to producers and suppliers.*

*Compliance and monitoring are effective and sufficient to ensure fair competition.*

87. This outcome can be seen as one of the original rationales for the development of standards. The existence of a standards and conformance infrastructure increases economic efficiency by aiding consumer confidence and by enhancing compatibility among products, which enables economies of scale to develop. Standards are instrumental in disseminating technical know-how and can be used to improve the quality of goods produced domestically<sup>18</sup>.

<sup>18</sup> World Trade Organisation (2005) *World Trade Report*, page 30.

88. Many standards are designed to ensure compatibility and quality and minimise transaction costs. However, standards can have other effects on the overall functioning of the economy and market. It is possible for Standards development processes to be captured by particular interests and to be used anti-competitively as barriers to entry of a market.
89. Standards can also affect innovation, either by limiting it through over-prescriptive requirements or encouraging innovation by spreading new technology. Voluntary Standards set above minimum technical regulations can also promote best practice, raising the quality of goods.
90. The 1995 review of Australia's standards and conformance infrastructure<sup>19</sup> pointed out that "at the most fundamental level, the standards and conformance infrastructure enables the production of goods and services. Only the most rudimentary production methods would be possible without accurate and sophisticated measurement." Each industry sector active in New Zealand generates a need for measurement, and in many cases new technologies must be accompanied by developments in measurement technologies.

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<sup>19</sup> *Linking Industry Globally*, page 4.

### **Outcome Three: International trade is facilitated**

**Standards** contribute to this outcome when:

*Standards supporting regulations are international, transparent, non-discriminatory and the least trade-restrictive necessary to meet the required outcome.*

*Exporters and importers know how to meet standards and regulatory requirements in New Zealand and export markets.*

**Measurement** services contribute to this outcome when:

*Measures of traded goods and processes are traceable to international measures, sufficiently precise to meet standards and accepted by export markets.*

**Accreditation** services contribute to this outcome when:

*International activities facilitate the acceptance of New Zealand conformity assessment results by all markets, and New Zealand can have confidence in the conformity assessment processes of its trading partners.*

**Conformity assessment** services contribute to this outcome when:

*Businesses have reasonable access to all required conformity assessment services.*

**Regulations** contribute to this outcome when:

*Regulations utilise international or trans-Tasman standards if they achieve the New Zealand Government's desired outcome.*

*New Zealand's regulatory requirements are not unnecessarily trade-restrictive, are transparent and available to all.*

*New Zealand's regulatory systems are coordinated with the regulatory systems of trading partners.*

91. Differences between nations' standards and conformance regimes have become more important as global trade has increased and diversified. The international community has sought to reduce the risk that poor design of technical regulations acts as a barrier to trade though the

TBT and Sanitary and Phytosanitary (SPS) agreements. These agreements are intended to reduce the threat of standards being used for hidden protection or discrimination<sup>20</sup>.

92. The use of international Standards assists in overcoming the cost of different standards in different markets. However, differences in preferences, tastes and assessment of risks among countries can appropriately lead to the adoption of differing product standards.
93. To facilitate trade, not only standards, but all aspects of the standards and conformance infrastructure may need to be recognised by the importing country. The overall aim in conformity assessment and accreditation is “one Standard, one test, accepted everywhere<sup>21</sup>”, but in reality this is far from the case.
94. In New Zealand it is noted that where the accreditation of a conformity assessment body is internationally recognised, this reduces duplicate requirements and significantly reduces transaction costs. Voluntary sector multi-lateral agreements, where accreditation bodies recognise each other’s accreditation, contribute to this.
95. New Zealand generally has regulatory regimes that rely heavily on suppliers’ declarations of conformance whereas many of New Zealand’s trading partners place more emphasis on pre-market approvals. Co-ordination of the different strategies to ensure compliance is an important aspect of trade facilitation.

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<sup>20</sup> World Trade Organisation (2005) *World Trade Report*, page 29.

<sup>21</sup> This was the slogan for the International Organisation for Standardization’s World Standards Day in 2002.

## **Common issues and themes**

### **Infrastructure needs and the size of the New Zealand economy**

96. In this section of the paper a number of common issues facing all parts of the standards and conformance infrastructure are identified, the combined effect of which draws into question New Zealand's capacity to continue to provide sufficient standards and conformance services to meet its developing needs over time. The common issues identified are listed below. Comment is particularly sought on these issues and their relative importance individually, but also upon their collective impact.
97. While many of the issues identified in this paper could be individually addressed, there remain those that reflect the size of New Zealand's economy. Feedback is therefore sought on whether, if all of those issues which can be addressed are resolved, there might be a role for government to facilitate alternative arrangements which secure some of New Zealand's standards and conformance services. This may involve using resources outside of New Zealand, particularly jointly as part of the push towards the development of a single economic market with Australia.
98. Where New Zealand standards and conformance services have been established they are well regarded internationally. Looking to a more complex future, a range of questions need to be posed:
- Will the New Zealand standards and conformance infrastructure have the capacity to meet increasing demands to provide services of greater diversity and complexity?
  - Will the New Zealand economy be sufficiently large to provide the technical resources and fund, of itself, the full range of standards and conformance services necessary for economic prosperity?
99. This paper generally takes the view that New Zealand can rise to these challenges. Some of the answers will lie in working closely with other governments in the international community. New Zealand will also need to be innovative and focused on meeting future challenges in standards and conformance.

### **Common issues within the New Zealand infrastructure**

100. The following questions arise throughout this paper. In order to make the most of the existing standards and conformance infrastructure arrangements, these questions must be addressed:
- How can the infrastructure bodies better support alignment and the achievement of the Government's overall objectives?
  - What role could the Ministry of Economic Development play, beyond its current activities, to further objectives in this area?

- Is there an inadequate understanding and application of the role and benefits of the standards and conformance infrastructure in New Zealand?
- How, if at all, can current arrangements for information flows between infrastructure bodies, regulators and firms be improved?
- Is New Zealand's representation in key international standards and conformance processes sufficiently organised to manage risks and take up opportunities?

## **Regulation and the role of standards and conformance**

101. Quality regulation is defined as regulation which is efficient, effective, transparent, clear and equitable, according to the Ministerial Review of Regulatory Frameworks<sup>22</sup>. In terms of the quality of regulation, the following questions need to be posed:

- What should the role of standards and conformance be in supporting quality regulation?
- Where are linkages between regulation, standards and conformance inadequate?
- Is adequate use being made by regulators of the standards and conformance infrastructure?
- Where is a lack of enforcement of regulation and standards creating problems for business?

102. The international recognition of outputs from New Zealand's standards and conformance infrastructure is crucial. While the reputation and standing of the infrastructure internationally is high, and the infrastructure bodies participate in voluntary sector MLAs, these arrangements have variable recognition within the regulated sector, both inside New Zealand and internationally. Mutual Recognition Agreements and other government-to-government agreements can promote recognition of accreditation by MLA partners.

103. In some notable cases, the use of the voluntary sector MLAs has been seriously affected by changes to external regulator's informal recognition arrangements such as those applying to the United States' recognition of New

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<sup>22</sup> Ministerial Review of Regulatory Frameworks: Cabinet Paper available at [www.med.govt.nz](http://www.med.govt.nz)

Zealand's electromagnetic compatibility testing agencies, Singapore's recognition of New Zealand's electrical safety testing facilities and Australia's recognition of United States' medical device certification.

104. Feedback is sought on whether the government's current level of involvement in facilitating international government-to-government arrangements is adequate and whether the recognition by regulators of the voluntary sector arrangements should be promoted as part of the facilitation processes.
105. Increased requirements from overseas regulators can be driven by advances in technology. For example, the precision of measurement changes with new technology. Sometimes the appropriate response to this will require more investment in capability and technology by New Zealand (the pressure on resources described above). At other times, where a high degree of precision is not required to protect health, safety or the environment, increased precision may be used as a technical barrier to trade. In this case New Zealand (and other countries) will have to use the world trading system to ensure that regulation is meeting a legitimate objective as defined in the TBT Agreement.

## ***Common issues: Governance, accountability and alignment***

106. The New Zealand standards and conformance system is fundamentally sound and successful in what it does. This review provides an opportunity to examine how it might be possible to further strengthen the infrastructure or improve its outcomes. There are significant inter-dependencies between Standards, accreditation and measurement – the activities undertaken by the infrastructure. Do the governance and accountability arrangements of the infrastructure bodies support the overall outcomes and alignment needed?
107. A related question is what the role of MED, as the government’s main adviser on standards and conformance policy, should be in relation to co-ordination. There are trade-offs between each infrastructure body operating independently and more centralised coordination. Areas where more coordination may lead to better outcomes may include sharing of information, and better integration with government-to-government negotiations of Free Trade agreements, Closer Economic Partnerships or Mutual Recognition Agreements.

## **Alignment between central government and infrastructure bodies**

### **Current situation**

108. In New Zealand, the standards and conformance infrastructure is made up of two Crown entities (SNZ and IANZ), a unit of a Crown entity (MSL), an international organisation (JAS-ANZ) and a section of a government department (MAPSS). As such, some of the infrastructure bodies are subject to the Crown Entities Act 2004<sup>23</sup>, while others are not. This means that there is a complex mix of statutory structures, governance and accountability arrangements, including:
- The Standards and TLR Councils are appointed by the Minister of Commerce (for the Standards Council) and by the Minister and the Council (for TLR Council). The Chairs of both Councils have a Memorandum of Understanding with the Minister of Commerce.
  - MSL is accountable to the IRL Board which in turn is accountable to the Minister of Research, Science and Technology. It has a contract with the Minister of Research, Science and Technology known as an Output Agreement for Services relating to Physical Measurement Standards.
  - JAS-ANZ was established by treaty between Australia and New Zealand and the JAS-ANZ Board has Australian and New Zealand government representatives, is accountable to Australian and New Zealand Ministers and produces a Statement of Corporate Intent.

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<sup>23</sup> The Crown Entities Act 2004 sets out a consistent framework for the establishment, governance and operation of Crown entities and clarifies the accountability relationships between Crown entities, their board members, their representatives and their responsible Ministers on behalf of the Crown.

- MAPSS, as part of the Ministry of Consumer Affairs is expected to contribute to the outcomes of the Ministry and is also included in output agreements with the Minister of Consumer Affairs.
109. There are examples in the economies of our trading partners where the standards and conformance bodies are within the same or related organisations. In other cases, there are formal mechanisms<sup>24</sup>, such as memoranda of understanding, which link the different standards and conformance bodies.

### **Things to consider**

110. In New Zealand, the variety of organisational structures and accountability arrangements raise questions about the ability of, and/or incentives for, the infrastructure bodies to appreciate and deliver on the government's strategic priorities for the infrastructure as a whole. More specifically, the different structural and governance arrangements may limit MED's ability, on behalf of the government, to align the infrastructure bodies with the government's strategic priorities. There are also implications for the ability of the Minister of Commerce (through the Ministry) to influence the strategic priorities of the bodies, where appropriate.
111. Government departments can be directed by Ministers, while Crown entities, such as the TLR and Standards Councils exercise independent functions. They are only subject to Ministerial directions to the extent authorised by legislation. In terms of policy directions, the Crown Entities Act 2004 provides that autonomous Crown entities, such as these, are subject to Ministerial policy directions affecting their areas of business. Their statutory obligation is to have regard to such directions - as distinct from government departments which must give effect to Ministerial directions. The status of JAS-ANZ as a Treaty body sets up yet another type of arrangement between Ministers and the Governing Board, while direct government funding (such as for MSL) brings further obligations and agreements.
112. MED also has a responsibility to advise the Minister of Commerce on issues pertaining to the infrastructure generally and on the Crown's ownership interests in the Standards Council and Testing Laboratory Registration Council specifically. The variety of structures and governance arrangements may affect the Ministry's ability to provide whole-of-infrastructure advice to the Minister.
113. Another aspect of governance to be considered is the task and structure of the governing boards which most of these entities have. Generic requirements of a board, whether public or private, include financial and capability

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<sup>24</sup> An example of a country with an overarching organization is Malaysia. An example of a country with separate bodies which have formal relationship agreements is Australia e.g. the Memorandum of Understanding between NATA and Standards Australia.

management and risk management decisions. While it is to be financially responsible, the main purpose of a public sector board is fulfilling its public objectives, not profit maximisation.

114. The boards of these entities also need to consider both technical and industry factors across a variety of sectors of the economy, and their governance responsibilities. The effectiveness of the boards of these organisations is influenced by:
- the representative nature of board membership;
  - the size of a Board;
  - the time available to board members to govern; and
  - the knowledge of board members or the knowledge they can access to contribute to the effectiveness of the organisations.
115. There is also a tension between operating as a revenue-raising business and a not-for-profit public entity.

## Issues

116. *How can the governance and accountability of the infrastructure bodies be improved to allow for better fulfilment of the government's objectives and strategic priorities and appreciation of the role of the infrastructure bodies in supporting these priorities<sup>25</sup>?*
117. *How can existing formal instruments for example, Memoranda of Understanding, be better utilised to support the Ministry's effectiveness in promoting the government's strategic priorities across the infrastructure?*

## Options

118. One option is to **retain the status quo** in governance regimes and accountability documents. The expectations of the organisation being agreed and set out once a year in their Statement of Intent or other documents, and little further active involvement from MED.

OR

119. **More active bilateral engagement** between MED and the infrastructure bodies could be pursued to achieve greater understanding and alignment.

AND/OR

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<sup>25</sup> The progressive changes resulting from the Crown Entities Act 2004 assist in addressing this issue for those bodies which are Crown entities.

120. **Advisory and governance functions** of the boards **could be separated**. Much smaller governance units could be put in place, which would allow representative perspectives to be channelled through advisory committees. Provisions for adequate training and support for the boards could also be increased.

### **Alignment between each of the infrastructure bodies**

121. A related issue is whether the right levers and/or incentives exist for MED to promote better alignment between the bodies, particularly where shared strategic priorities exist or there are technical issues of common interest that require better alignment. This limited alignment may be restricting the infrastructure's ability to maximise potential synergies between their strategic priorities and work programmes and may have a negative impact on the efficiency and effectiveness of how the bodies carry out their work in relation to meeting client needs.
122. Currently, there is a mixture of formal and informal arrangements between some of the bodies. Some have memoranda of understanding with each other. Some have specific roles such as membership of another body's advisory committees. Some other relationships, such as between MSL and MAPSS, are not supported by any formal processes. In 1999 the Standards, Accreditation and Metrology (SAM) group was set up with the intention to meet twice-yearly on co-ordination issues, but it is not clear that this has effectively supported co-ordination across the infrastructure.

### **Issue**

123. *How can the different bodies comprising the infrastructure as a whole work together, at both the strategic and technical levels, to develop a clearer appreciation of, and better align with, the government's strategic priorities?*

### **Options**

124. **Clarification of expectations** could be included in the performance agreements between the Minister, Crown Entities and government Departments. This would provide Boards with an indication of the importance attached to cooperation.

AND/OR

125. **Sharing of Statements of Intent** could also be a request or requirement of the bodies at the time they are being developed, to encourage a strategic discussion about priorities in the infrastructure as a whole.

AND/OR

126. **MED coordination** could be more formalised through, for example, regular meetings at Chief Executive level (to replace SAM). This group could support coordination at other levels where necessary, such as technically between IANZ, MSL and MAPSS). Performance agreements could include regular reporting to ensure progress is being made. This option could also address other issues of the delivery of the governments objectives.

## **Common issues: Information**

127. The availability of information on the standards and conformance infrastructure and the services these bodies provide is an important issue and one that affects the infrastructure as a whole. There are two dimensions to this general issue: the flow of information between the infrastructure bodies and regulators, and firms' ability to get the information they need about standards and conformance (including regulation).

### **Information within the infrastructure**

#### **Current situation**

128. In the context of developing good quality regulations which achieve both risk management objectives and do not create unnecessary barriers to trade, regulators need to know what services the infrastructure bodies can provide to support the development of regulation. In this respect, there is evidence to suggest that the use of the infrastructure by regulators is varied. Some regulators make extensive use of the infrastructure, while others do not. This is either because they are unaware of the services available to them, or they have judged these services as inappropriate for their needs.
129. The infrastructure bodies do provide information and maintain relationships within the regulated sector, but these may not be comprehensive or in a form useful to regulators.

#### **Issues**

130. *How can the infrastructure bodies improve the way they promote and tailor their services to regulators?*

#### **Options**

131. **Clearer expectations** around responsibility for information exchange with regulators could be included in performance agreements (for Crown Entities and government Departments).

AND/OR

132. The **formalised meetings** option already discussed could be a platform for addressing this issue. The infrastructure could work together to develop joint information tools, which might include electronic information options, to facilitate information exchange with regulators.

AND/OR

133. **A forum** to bring together regulators and the infrastructure bodies, along with MED, may be appropriate. Options for formalising the interaction of regulators with the infrastructure are discussed in the later section on regulation.

## Information for business

### Current situation

134. The second dimension of the broader information issue is the availability of information for business. This applies equally to New Zealand firms selling in New Zealand, New Zealand firms selling offshore and to offshore firms selling in New Zealand. Businesses need to know what the relevant technical regulations are, including mandatory standards, and also what conformance requirements they must meet.
135. There are a number of possible sources of information for an importer or exporter. Currently each regulatory agency takes responsibility for promotion of its regulatory requirements. The infrastructure bodies already provide a range of information and relationship services targeted at their clients and potential clients. There are also business associations and private consultants who may offer this service. What is the appropriate role of government versus the private sector in this regard? Minimum requirements might be met by posting information on a website, whereas much more active promotion of information may be necessary in some cases. There may be more effective and efficient ways of making this information accessible to business.

### Issues

136. *How can existing mechanisms be improved to give businesses quick and timely access to up-to-date information about mandatory requirements and conformity assessment requirements both in New Zealand and export markets?*
137. *Does the lack of user friendly guidance materials on how to comply with regulations create compliance uncertainties, particularly in the case of performance-based regulations?*

### Options

138. The **status quo** situation should continue. Each infrastructure body and regulator remains responsible for information provisions in their own area. The most valuable information for business comes from other people in the same sector through business groups, or advice commissioned from specialists.

### AND/OR

139. The work proposed by the infrastructure on **developing joint information tools** could also have a public mechanism which ensures that the facts on regulatory requirements are known, or at the least that people are told who to contact to find out. The main choice for this option is whether to try to gather all types of information in one place or centralise information around sectors or markets.

## Specific Issues

140. The preceding section discussed issues which all parts of the infrastructure have in common. This section considers each area of the standards and conformance infrastructure in turn. It explains the current situation and relevant things to consider before identifying issues and options.
141. The topics discussed are:
- standards, including participation in domestic and international standards development;
  - measurement;
  - accreditation, including the accreditation of inspection bodies, the funding of participation in international activities, and the framework for the Testing Laboratory Registration Council's operations;
  - conformity assessment, including supply of conformity assessment services and take up of certification services; and
  - regulation.

## **Standards**

142. Economic theory has identified that the purpose of standards is to overcome a range of market failures or inefficiencies which would result from leaving compatibility and risk management completely to the marketplace. The development of standards supports all three objectives identified: managing risks to health, safety, and the environment and facilitating both domestic economic development and international trade.

## **Current situation**

143. The review to date has found that the existing standards-development process meets many of the objectives described in the preceding section. The outstanding issues surround questions of strategic priority – which Standards get developed and how sustainable is the current role of SNZ?
144. A major issue identified concerns the future role of SNZ which provides Standards for domestic applications through a consensus process and provides a conduit for participation in the international Standards process. SNZ decides, with sector input, which Standards to develop or update depending on market demand and the availability of sponsors. SNZ is self-funded, relying principally on sales of publications (Standards) (45 per cent of its income in 2005), and contracts for services (25 per cent of its income in 2005)<sup>26</sup>.
145. New Zealand and Australia have endorsed a framework which requires consideration of international (ISO) Standards, then joint trans-Tasman (Australia / New Zealand) Standards, before the development of a domestic-only Standard.

## **Things to consider**

146. It is probable that the following factors are changing the demand for Standards: changes in international and domestic regulatory structures, including the progression to performance based approaches, combined with the internationalisation of Standards, an increasing diversity of the coverage of Standards and the development of the Single Economic Market with Australia.
147. Requirements to sponsor the Standards development process may place a disincentive on the use of the process, particularly where the sponsor may be able to produce alternative “standards”. Internationally, there is a trend by national standards development bodies to accredit regulators and industries to develop their own standards and guidelines. The accreditation process ensures that the resulting documents are “registered” into the Standards infrastructure but allows their development to be managed and funded.

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<sup>26</sup> Source: Standards Council (2005) *Annual Report for the year ending 30 June 2005*.

148. There is also an increasing tension between regulatory objectives of making compliance guidelines available at a cost that does not impede uptake and the desire to obtain a commercial return on the intellectual property contained in Standards. This tension becomes an issue where a regulator is the major sponsor of the development process and where the Standard is a major potential income earner for the Standards development body<sup>27</sup>. A similar situation exists for other sponsors.

## Issues

149. *How can the prioritisation of Standards activity be improved and directed at those projects which will return the best outcomes to the economy considering available knowledge and funding resources?*
150. *How might the tension between securing an appropriate return on the invested intellectual property contained in Standards be balanced against the compliance objectives of regulators and the economic benefits expected from the availability of Standards?*
151. *How are changes in the international and domestic regulatory structures, the internationalisation of Standards, increasing diversity of the coverage of Standards and evolving regulatory needs changing the demand for, and structure of, Standards?*
152. *How, if at all, are trends in this area challenging the sustainability of Standards New Zealand's current operating models and what should be done about it?*

## Options

153. In an **enhanced status quo option**, responsibility for funding the development of Standards primarily aimed at public interest outcomes should remain with the various regulators. Under this option, there may be scope to consider how regulators might be required to have a closer involvement with funding and prioritising the Standards development process.

OR

154. For domestic Standards development, it might be possible to **develop a more centralised process** for choosing which standards to develop and maintain. Such a process could seek to ensure that the most important standards to "New Zealand Inc." receive priority. This process might include an economic/regulatory impact assessment process.

AND/OR

155. The current business model for SNZ could be revised. Work could be done to consider if there is a business structure or model which could be more effective in the future environment, particularly where the price

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<sup>27</sup> Regulations Review Committee (2004) *Inquiry into Material Incorporated by Reference*, page 12.

of a Standard provides a disincentive to the delivery of economic or regulatory outcomes sought through the application of the Standard. Such a model would need to be consistent with our international obligations.

AND/OR

156. The **method of public funding** may be revised. This could involve some public funding for SNZ, or filtering public funding through regulators for their sponsorship of standards in the public interest.

### **Participation in standards development**

157. Involvement in the Standards development process is on a voluntary basis. SNZ promotes the individual and organisational benefits of such involvement. Industry commitment to participation in the process could be reducing, however, with competing resource pressures. This is particularly true for small to medium sized firms, as larger firms with more at stake can subsidise the participation of their staff on Standards development committees. This also risks the charge that some committees are ‘captured’ by large firms’ interests. Public participation, such as by consumer representatives or independent experts, is also becoming increasingly dependant on direct support from the Standards process.

### **Issues**

158. *What are the incentives for business and consumer representatives to contribute to standards development processes, and what, if anything, should be changed?*

### **Options**

159. The **status quo situation** is appropriate, as those who value taking part in the process enough to fund themselves should be the ones with a say.

OR

160. There may be arguments for **more direct funding of participation in Standards development** to ensure that committees get the best and widest representation. This would form one of the uses for the limited public funding mentioned above. Under this option, regulators could be made responsible for ensuring appropriate representational balance.

### **Participation in international standards development**

#### **Current situation**

161. The trend towards New Zealand becoming a “taker” of Standards developed internationally and for regulators to directly adopt international Standards may not only reduce traditional revenue sources for SNZ, but increase the need for New Zealand to participate more in the development of international Standards.

## Issue

162. *Is there currently sufficient participation in international Standards development (not just by infrastructure bodies but also by regulators and business) to meet New Zealand interests?*

## Options

163. The **status quo** situation is appropriate as firms or regulators choose to be involved in international standard development.

OR

164. **Design a process** to decide how New Zealand's interests can best be represented at international standards development. This might include increased links between trade policy and SNZ to assist and inform strategic choices. This option might logically be combined with the process adopted for domestic Standards projects.

AND/OR

165. The Memorandum of Understanding between the Minister of Commerce and the Standards Council could include more specific expectations on involvement in the international standards process.

## **Measurement**

### **Objectives**

166. All the outcomes which government requires from the infrastructure rely on measurement services being available for products and processes. The overall outcomes of the standards and conformance infrastructure described earlier require appropriate measurement services to be available, traceable and reliable.

### **Current situation**

167. Metrology is an area of exponential growth in new and complex technology. While these advances provide a platform for the development of new high technology products, they also pose problems for metrologists in small countries with limited resources. Increases in the scientific requirements for trade measurement<sup>28</sup> also may challenge existing work divisions between legal and physical metrology.
168. An examination of measurement services provides an opportunity to consider how well-aligned the priorities of the different parts of the infrastructure are, with respect to overall economic development objectives. In the physical metrology area, the core funding for the Measurement Standards Laboratory comes from Vote: Research, Science and Technology. MSL is not a separate body, but a unit of IRL, and the Minister of Research, Science and Technology's output agreement for these services is with IRL.
169. In the 2006/7 financial year, IRL will receive \$6,192,000 to provide the services laid out in the output agreement on National Measurement Standards. This total includes the overhead charges which the Measurement Standards Laboratory must pay to IRL. MSL's capital expenditure and staffing decisions are subject to the IRL Board's priorities, rather than the MSL alone.

### **Things to consider**

170. The ability to measure new physical qualities and to measure to increasing degrees of precision, frequently requires expensive equipment and expertise that is in short supply. At the same time, failure to have access to new forms of measurement can inhibit new product development or access to overseas markets.
171. The main challenge identified in measurement services is the provision of chemical and biological measurement accuracy (a worldwide issue). This issue is being addressed temporarily in New Zealand by calling on the combined resources of private and public sector laboratories, but in the future

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<sup>28</sup> For example, in the past, grain was measured and sold on the basis of weight. International developments mean that it is now measured by weight, moisture content and protein content.

additional capacity in the public sector may be required. There are also some specific measurement services, for example, in relation to high voltage equipment, which cannot be provided in New Zealand currently. These services need to be obtained overseas, where this is possible, which involves additional expense to producers. There are some services that require local measurement capacity such as trace soil elements.

172. Areas where increased demand is likely to occur over time include applications of nanotechnology in industry, as well as changing environmental standards and expectations. In a situation where there is rapidly increasing demand for measurement services, it is possible that neither the resources of MAPSS or MSL nor existing alliances within the region to facilitate access to services not provided in New Zealand, will be sufficient.
173. Decisions about priorities for investment in the MSL are made by the board of IRL, unless a client directly funds the necessary service development. Funding decisions and priorities are therefore made without formal input from other parts of the standards and conformance infrastructure or from the MED.
174. The main issue for measurement in this review is the challenge of maintaining capacity in measurement services and extending this with our changing needs. This is both a potential problem of resourcing and also an issue which may be affected by alignment, or lack of it, in the infrastructure.

## Issues

175. *In a period of rapid technological advance in metrology, how can the capability of metrology services be maintained to meet New Zealand's strategic needs?*
176. *Is there sufficient co-ordination between government, other infrastructure bodies and metrology services to ensure that decisions on future resourcing and directions of such services meet the needs of their users?*

## Options

177. The options already proposed to **improve alignment and information exchange** for the standards and conformance infrastructure as whole would help to resolve the issues raised about priorities for measurement capacity.

AND/OR

178. **Better linkages between funding decisions for MSL and MAPSS** and the standards and conformance needs of the economy may be sought at the portfolio level. Responsible Ministers could be encouraged or required to consult with the Minister of Commerce on their performance agreements with the measurement bodies.

AND/OR

179. Initially other improvements in alignment and information sharing should improve measurement outcomes. Alignment with overseas bodies and adequacy of total funding may need to be reconsidered in the future if these options prove insufficient.

## **Accreditation**

180. The activities of the accreditation bodies successfully support all the outcomes of the infrastructure for the most part. The more that conformity assessment competence and results are accepted both locally and internationally, the better for both risk management and domestic and international trade. International recognition is an ongoing process through government-to-government activities as well as international liaison by the infrastructure bodies themselves.
181. The existing accreditation bodies have a wide and positive involvement in the economy. Three specific issues are identified here: the accreditation of inspection bodies, the funding of participation in international activities, and the framework for the Testing Laboratory Registration Council's operations.

### **Accreditation of inspection bodies**

#### **Current situation**

182. Conformity assessment bodies, whether testing laboratories, certification bodies or inspection bodies, are required to be accredited for much of the work they carry out. This accreditation plays an important function within the domestic economy and is also essential for the acceptance by overseas markets of many New Zealand exports.
183. In New Zealand, IANZ provides accreditation of testing laboratories and JAS-ANZ provides accreditation of certification bodies<sup>29</sup>. One area in which there remains an overlap in the mandated functions of the two bodies is the accreditation of inspection bodies. Until recently IANZ has been the prime provider of inspection body accreditation. JAS-ANZ, however, is now providing these services in New Zealand.
184. The ability of two peak bodies to provide this service is not widely replicated in other jurisdictions reflecting the fact that, usually, the equivalent activities of JAS-ANZ and IANZ are contained within one national accreditation agency. A general principle in other jurisdictions is also that accreditation activity should not be the subject of competition in the market place.

#### **Things to consider**

185. In reflecting on the merits, or otherwise, of the New Zealand approach consideration needs to be given to the following:
- the benefits to businesses, other consumers, and regulators, associated with having a choice in accreditation provider;
  - whether a competitive model puts at risk the integrity and quality of the accreditation services and how this might be managed;

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<sup>29</sup> The Standards and Conformance Bill 2005, currently before Parliament, will clarify the roles of IANZ and JAS-ANZ in relation to the accreditation of certification bodies.

- the scope for developing a complementary rather than competitive model between JAS-ANZ and IANZ that would serve business and regulator interests;
- the potential risks to New Zealand trade associated with maintaining a dual approach which is becoming increasingly at variance with developments in other jurisdictions;
- developments of international MLAs between accreditation agencies in the inspection area. Unlike the widespread network of MLAs that underpin international recognition for certification services and laboratory test reports, MLAs in the inspection area are still developing. Of the four international bodies relevant to New Zealand only Asia Pacific Laboratory Accreditation Cooperation (APLAC) has developed an MLA (although IANZ was also evaluated in April 2006 for entry into the MLA operated by European Cooperation for Accreditation for Accreditation of inspection bodies).
- the long-run implications of the current efforts between the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC) to adopt the same standards and guidelines for peer reviewing peak agencies and the standards for accreditation of inspection bodies;
- the reasons the Australian government, under their Memorandum of Understanding between the Department of Industry of Tourism and Resources and the National Association of Testing Authorities (NATA), identified the latter as Australia's "peak authority for the accreditation of inspection bodies" despite JAS-ANZ's mandate allowing it to undertake this work.

## Issues

186. *Is the current model for accreditation of inspection bodies appropriate for New Zealand's current and future needs? If not, how could it be improved?*

## Options

187. The **status quo situation** could be retained. If there is a risk stemming from current arrangements, New Zealand could make more effort to promote our model to our trading partners.

OR

188. **Divide up responsibility for accrediting inspection bodies** according to the alignment with other accreditation, such that where certification and inspection exist, but not testing, JAS-ANZ could undertake accreditation. This option would require transitional or grandparenting provisions.

OR

189. Accept that the risks associated with the complementary model may be greater than the benefits and **move to a single provider** of accreditation for inspection bodies. Such a change would also require transitional arrangements for current clients.

## Funding of participation in international activities

### Current situation

190. IANZ and JAS-ANZ participate in a range of international activities. They have played active roles in their international affiliations, special regional bodies, and CASCO (ISO's policy development committee on conformity assessment). Many of these activities are core activities required to establish and maintain their international credibility. The cost of participating in these activities has been met from revenues from accreditation services as both IANZ and JAS-ANZ are usually expected to finance their activities on a user pays basis. The policy rationale for this is to ensure services are demand driven and costs are met by the organisations that profit from them.

### Things to consider

191. Some international activity by the accreditation bodies, such as taking part in free trade negotiations, generates positive externalities which accrue to a wider group than IANZ or JAS-ANZ clients. In addition, a substantial number of accreditation services are not for the commercial sector or export oriented firms. A question has been raised as to whether international activities have broadened beyond the role envisaged when the bodies and their self-funding model were set up.
192. Set against this, however, are a number of other factors. Cross subsidisation from Telarc Ltd to IANZ enables IANZ to remain a viable concern without direct government funding.<sup>30</sup> If the funding arrangements for participation in international activities were to be reconsidered, it might also be necessary to look at current funding arrangements for IANZ.

### Issue

193. *What are the best means to fund participation in international activities by accreditation bodies?*

### Options

194. The **status quo** should remain, recognising that accreditation bodies are public bodies which generate revenue and international activities should be decided on by each board and funded out of the body's revenue. From the perspective of client fees, such international activities are an overhead cost.

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<sup>30</sup> Retaining Telarc Ltd in the public sector also provides the government with a possible avenue to ensure New Zealand industry has access to any form of conformity assessment that might become essential for New Zealand exports (though subsidising fees charged by private firms could achieve the same results).

OR

195. An option for increased recognition of the value of international activities could see the performance agreements made with the Minister (in the case of the Crown entity, IANZ) providing a **stronger expectation** of international activities. The Board and management would be able to refer to these expectations when deciding on what international activity to undertake, and could report against these expectations. For JAS-ANZ, the mechanisms provided in the Treaty could be used, depending on negotiation with the relevant Australian Minister.

OR

196. The **complete funding model** in this area could be re-examined. Participation in international activity is not the only public interest contribution of accreditation. A different funding model could be designed which accounted for all revenue and non-revenue raising activities such as participation in international activities. This could also involve any surpluses being returned to the Crown.

### **Framework for the Testing Laboratory Registration Council's operations**

197. The Testing Laboratory Registration Act 1972 gives the TLR Council undifferentiated powers and functions relating to both accreditation and certification. These services are on two different levels of the double audit system that underpins third party conformity assessment. It is important for the integrity of the system and for international acceptance that they are delivered separately. The TLR Council recognises the importance of providing accreditation and certification services and does so through two different operational arms, IANZ and Telarc Ltd (a subsidiary company providing certification services only). In meeting the growing demand for 'packages' of testing, inspection and certification services, there is a risk that the distinctions between the two types of services may become blurred, intensifying the need to safeguard the distinction between accreditation and certification. There may be a need for an explicit clarification of these roles.

### **Issue**

198. *How can the government best ensure that the Testing Laboratory Registration Council's accreditation and certification functions remain separate as pressures on these functions increase?*

### **Options**

199. The **status quo** situation could continue, with the Council retaining the choice of how to separate its operational activities. The need to maintain separation could be underscored in performance agreements.

OR

200. The government could consider amending the Testing Laboratory Registration Act 1972 to differentiate the powers of the Council and clarify separation between its certification and accreditation activities.

## **Conformity assessment**

201. As is made clear in the objectives section of this paper, it is obviously not enough for standards to exist which describe how risks to health, safety, and the environment can be managed. There needs to be some way of telling whether a product or process is meeting those standards. The availability of conformity assessment services – for all products, processes and relevant standards – is necessary to achieve the management of risks. These services also need to be timely and cost-effective, as identified in the earlier section on outcomes.
202. For the most part, the private sector delivers these services, with a large number of conformity assessment bodies (CABs) operating across different areas of the economy. Public sector conformity assessment also exists in areas such as hospital laboratories. In the area of technical regulations, it is particularly desirable that compliance with regulations can be assessed and, if necessary, enforced. If conformity assessment services are not available for a particular standard or regulation, this is obviously a barrier to economic activity.

## **Current Situation**

203. For the most part, the private and public sector CABs deliver on the desired outcomes. There are, however, some products or areas where conformity assessment is not provided. It may not be commercially viable for New Zealand conformity assessment bodies to meet all the potential demand for their services, but there is evidence that a single economic market with Australia is evolving in some areas. New Zealand laboratories are now testing overseas products for compliance with Australian and international requirements, demonstrating that New Zealand can provide competitive conformity assessment services where they are established.
204. On occasion New Zealand Trade and Enterprise have assisted in meeting the costs of equipment and/or conformity assessment fees. In other sectors, manufacturers are developing “in house” conformity assessment capabilities which give them a market advantage but risk duplication and limit market innovation by their competitors.

## **Things to consider**

205. While there are some gaps in the provision of conformity assessment, there may not be any case for government intervention. It can be argued that the market for conformity assessments in New Zealand is small, with high fixed set-up costs. At the same time, the type of products and processing requiring conformity assessment are broad and increasing, often requiring highly skilled, specialist expertise and, for laboratory testing, expensive equipment.
206. As demands increase, the government may need to consider how conformity assessment services are developing, to guard against any risk of:

- products being marketed without being tested or certified with the associated risks for health, safety and the environment;
- products not being acceptable to export markets; and
- exports not being tested to acceptable standards, undermining New Zealand's reputation.

## Issues

207. *Are there inadequate conformity assessment services in the private sector to meet New Zealand's current and future conformity assessment needs? If so, what role can government play in working with the private sector to co-ordinate delivery of services and to address market gaps in the provision of conformity assessment services.*

## Options

208. **Keeping the status quo** assumes that there is no case for government intervention in the provision of conformity assessment services. Conformity assessment is a business cost, and if it is not profitable for a CAB to provide a particular service, producers should pay what it costs to obtain it (in New Zealand or offshore).

AND/OR

209. Accreditation agencies, CABs, business and regulators could be facilitated to communicate more. The earlier option of the infrastructure working together to **develop information tools** might have a role here. Information problems may exist in the market for some conformity assessment services. For example, CABs may not be aware of the total potential demand for a service.

AND/OR

210. If the conformity assessment required is related to regulatory requirements in New Zealand this could also be addressed by regulators themselves. The likely availability of conformity assessment services might be a consideration in the regulatory process. This option can be considered in the Regulatory Impact Analysis process which is currently under review.

## Take-up Rates of Certification Services

### Current situation

211. The government currently has goals around improving business capability and productivity in the New Zealand economy. Intelligent implementation of management systems can improve business capability and is becoming essential for an increasing number of exports. The take up rates for certification of quality management systems and environmental management systems in New Zealand is at variance with overseas trends. Business practice surveys suggested a sharp fall in the number of manufacturers that

have, or are seeking to have, a quality management system - from 58 per cent in 1997 to 38 per cent in 2001<sup>31</sup>. Adoption of environmental management Standards is even lower with only ten per cent of firms certified, or planning to become certified. Only 15 certification bodies exist in New Zealand.

## Things to consider

212. A number of factors have been identified as contributing to this situation including:
- the cost of certification;
  - the structure of accreditation fees which are claimed to be biased in favour of the bigger providers;
  - a lack of appreciation of the benefits of certification by New Zealand businesses; and
  - businesses appear to be unconcerned with the current take-up level.
213. It may also be possible that businesses have found more effective means of achieving those objectives. Another suggestion is that demand for certification in some New Zealand regulated sectors may be lower compared to other countries because the New Zealand economy is concentrated and regulation is enforced differently. For example, the Ministry of Agriculture and Forestry Biosecurity unit performs its own 'certification' around food, and the Electrical Safety Service recognises suppliers' declarations of conformance.

## Issues

214. *Why is there a low take-up of certification services in New Zealand and is this impacting on New Zealand's economic performance? If so, what can be done to improve the uptake of such services?*

## Options

215. The option of **information provision** discussed above for other areas of conformity assessment might also increase the supply of certification services, if the problem is one of supply.

## AND/OR

216. There may be a deficiency in demand rather than supply in this area. If certification is not required and the producer does not consider that its benefits outweigh the costs, the options for government are either to accept that business decision or **promote certification** or incentivise business to see the benefits of certification. This issue is being further investigated by the joint business/union/government Business Capability Partnership to better understand the causes.

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<sup>31</sup> Source: Firm Foundations, Ministry of Economic Development, 2002, page 83.

## **Regulation**

217. Some regulations aim directly at facilitating the functioning of the economy. These include competition policy and consumer protection such as the weights and measures and product safety legislation supported by MAPSS.
218. For regulations aimed at other non-economic outcomes such as health and safety, it is necessary to try to minimise unintended distorting side-effects on the economy, such as unnecessarily high costs of compliance. Thus the APEC information on good regulatory practice states that “regulatory measures should contain compliance strategies which ensure the greatest degree of compliance at the lowest level of government intervention.”<sup>32</sup>
219. Innovation is also relevant in this area. A report<sup>33</sup> commissioned by the Ministry of Economic Development suggested that for domestically focused firms (or more precisely importing firms) the standards and conformance system can support innovation by keeping any product compliance costs to a minimum and integrating any new conformity or surveillance processes with existing processes.
220. The principles of high-quality regulation adopted by the Ministerial Review of Regulatory Frameworks are efficiency, effectiveness, transparency, clarity and equity. The standards and conformance infrastructure can support these principles. There are also specific interfaces between the infrastructure and regulators. A primary vehicle for dealing with regulatory issues currently is the Ministerial Review on Regulatory Frameworks. Some of the following options are, however, relevant to this issue, and may warrant consideration.

## **Current situation**

221. Regulators (government agencies) each have their own goals and operate within their specific statutory frameworks. From the perspective of the standards and conformance infrastructure, regulators can be characterised as creating demand for standards and conformance services. The creation or amendment of technical regulations can have flow on effects for the work of the infrastructure.
222. There are a range of options for how a regulator can use a Standard or set of Standards, ranging from Standards cited in a technical regulation, to Standards referred to as ‘deemed to comply’ solutions to performance-based regulations. Conversely, a Standard may exist in an area, but the regulator may choose not to use it at all<sup>34</sup>. Although many use the standards and

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<sup>32</sup> Asia Pacific Economic Cooperation (2000) *Information Notes on Good Practice for Technical Regulation*

<sup>33</sup> Ministry of Economic Development (2005) *Review of the Role of Standards Development and the Standards and Conformance Infrastructure in Promoting Innovation in New Zealand*

<sup>34</sup> For example, one regulator recently chose to keep a reference to an old standard rather than utilize the updated standard. This was because the regulator felt that the new standard’s requirements were beyond that necessary for the regulation.

conformance infrastructure, there is no formal or overall obligation on regulators to use the infrastructure to manage health, safety and environmental risks.

223. In the New Zealand model, each regulator may sign a contract for service with SNZ or a Memorandum of Understanding with an accreditation body. Regulators however can also institute their own conformity and approval processes separate from the infrastructure. In any case, regulators are bound by the TBT Agreement, which imposes certain requirements, including specifically, the obligation to notify WTO Members of regulatory changes. In New Zealand this is through the National TBT Enquiry Point (contracted to SNZ). Currently, there appears to be limited awareness among regulators of this obligation.

### **Things to consider**

224. The issue has been raised of whether regulators are making the best use of the standards and conformance infrastructure. In particular, the outcome of facilitating international trade depends on technical regulations meeting certain requirements. The question arises as to whether regulators are adequately ensuring that for Standards they cite, or apply, there is:
- adequate emphasis on international Standards;
  - adequate emphasis on joint New Zealand and Australian Standards;
  - appropriate Standards to support performance-based regulation;
  - adequate participation of co-opted consumer representatives, experts and non-governmental organisations on Standards development committees; and
  - adequate clarity of the compliance obligations applying to the technical requirements of Standards.
225. Some regulatory regimes do not provide adequate information on how compliance can be achieved. This is particularly the case with some performance-based regulation.
226. The Review of Regulatory Frameworks has identified that there is a need to ensure the enforcement of regulation is focused on the objectives, and proportionate to the risks, of non-compliance. In the area of technical regulation, it is important to enforce compliance sufficiently to facilitate fair competition and not distort the market. For example, a problem has been identified with compliance of some imports. If local producers comply with regulations at extra cost, but imported goods do not comply, local producers will be less competitive. This is particularly true if consumers are not aware of the difference in compliance.
227. The existence of a trans-Tasman market means that dissimilar enforcement levels between Australia and New Zealand have the potential to further

disadvantage New Zealand manufacturers who service both markets. Likewise, New Zealand regulatory regimes that utilise the standards and conformance infrastructure are more likely to give foreign regulators the confidence needed to conclude trade-related arrangements (including MRAs).

228. The fact that New Zealand favours post market surveillance over pre-market surveillance can also create difficulties for exporters to countries that require pre-market surveillance. Addressing this issue may facilitate trade in some sectors.

## Issues

229. *Is there poor awareness among regulators of the services the standards and conformance infrastructure provides and how these can support and add value to the regulators' processes? Is this issue particularly acute around the development of Standards, conformity assessment requirements, and compliance with good regulatory practice?*
230. *How can awareness among regulators of their obligations under the WTO TBT Agreement be improved, and compliance monitored?*
231. *How can it be ensured that regulators take a closer interest in facilitating trade from New Zealand, in addition to undertaking their primary role?*
232. *As the sources of New Zealand's imports change, how can regulators ensure adequate regulatory enforcement and compliance with New Zealand standards?*

## Options

233. **Information provision** is the first step. The work on shared information tools already proposed could provide a place for regulators to discover the range of services available in standards and conformance.

AND/OR

234. **More active education, coordination and peer review.** The infrastructure, with MED in its coordinating role and the Ministry of Foreign Affairs in its trade facilitation role, could establish a forum for knowledge-sharing and problem-solving initiatives to promote the use of the infrastructure to regulators.

AND/OR

235. **A formal process could be introduced** to require regulators to consider using the standards and conformance infrastructure. Currently government agencies must undertake regulatory impact analysis and submit a Regulatory Impact Statement as part of the process of Cabinet approval for new or amended regulations. Additional requirements could cover the planned

conformity assessment and monitoring process and resources for this. If this option is preferred it is likely to be progressed in conjunction with the Ministerial Review of Regulatory Frameworks.

AND/OR

236. The **adequacy of the resources** available for enforcement of regulations domestically, and for the participation of regulators in international processes, could be reviewed to ensure both compliance in New Zealand and trade facilitation.

## Appendix One: Glossary<sup>35</sup>

**Accreditation** The formal verification of an organisation's competence to carry out a specific conformity assessment function.

**Calibration** A set of operations that establish, under specified conditions, the relationship between values of quantities indicated by a measuring system, or values represented by a material measure or a reference material, and the corresponding values realised by standards.

**Conformity** Fulfilment by a product, process or service of specified requirements.

**Conformity assessment** The term “conformity assessment” is a general term which covers a range of activities. It is generally accepted that “conformity assessment” is the “demonstration that specified requirements relating to a product, process, system, person or body are fulfilled”<sup>36</sup>. It covers testing, inspection and certification. Suppliers’ declarations of conformity are sometimes included in the definition.

**Certification** There are two differing types of certification: see Product certification and Systems certification.

**Inspection** A form of conformity assessment that relies on visual evaluation and the subjective professional judgement of the assessor, accompanied where necessary by measurement and testing, to determine the characteristics of a product, process, system, person or body.

**Licences/Approvals/Registrations** Regulators frequently require suppliers to obtain their approval or to register products before placing them on the market. To obtain approvals the manufacturer or supplier is usually required to present test reports, inspection reports and/or certificates. Acquiring an approval may also entail the regulator ensuring that the test reports and certifications cover all the requirements of the relevant regulations. Confusion over terminology may occur because these approvals are sometimes called ‘certification’.

**Measurement** A set of operations having the object of determining a value of a quantity.

**Metrology** The science of measurement. There are two branches of metrology: legal metrology deals with settling legal requirements for measurement and physical metrology provides national measurement standards and tests measuring and calibration equipment. The correct calibration of equipment underpins all other forms of conformity assessment.

**Product certification** Certification bodies may assess products against a specific standard or regulation and issue a formal attestation in the form of a certificate (or the right to use a certification mark) indicating that the product meets the requirements of the standard or regulation. Certification bodies utilise testing, inspection and an evaluation of the producer’s quality management system (see below), or any combination of these, to assess samples of the product.

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<sup>35</sup> This section has drawn on various sources for definitions.

<sup>36</sup> International Organisation for Standardization *ISO / IEC 17000*, page 4.

**Scope of accreditation** A document that defines the range of activity, subject, or topic for which an accredited body is recognized.

**Standards** Agreed technical specifications for products, processes, performances or services. Usually standards are voluntary but when referenced in legislation (often as mandatory requirements), they are referred to as technical regulations.

**Suppliers Declaration of Conformity** Procedure by which a supplier gives written assurance that a product, process or service conforms to specified requirements. Rather than requiring products to obtain government approval before sale, a regulator may consider that it is more appropriate for a manufacturer or supplier to give a written assurance, based either on their own or a third party's testing or inspection, that their product or service conforms to specified requirements.

**Systems certification** In addition to certifying products, a number of certification bodies also assess the quality management or environmental management systems of an organisation in accordance with the ISO 9000 or ISO 14000 series of management system standards. A quality management system is expected to reduce production errors, especially in high-volume production.

**Test** Technical operation that consists of the determination of one or more characteristics of a given product, process or service according to a specified procedure. Testing usually involves following a defined procedure and reporting the outcomes in an objective and scientific way.

**Third Party** Person or body that is recognized as being independent of the parties involved, as concerns the issue in question.

**Traceability** The property of the result of a measurement or the value of a standard whereby it can be related to stated references, usually national or international standards, through an unbroken chain of comparisons all having stated uncertainties.

## Appendix Two: International and Regional Standards and Conformance Bodies

Activity	International Organisation	Asia/Pacific Regional Organisation <sup>37</sup>	New Zealand National Authority <sup>38</sup>	Australian National Authority
<b>Documentary Standards Development</b>	International Organisation for Standardisation (ISO); International Electro-technical Commission (IEC)	Pacific Area Standards Congress (PASC)	Standards New Zealand (SNZ)	Standards Australia International (SAI)
<b>Physical Standards of Measurement</b>	Bureau International Poids et Mésures (BIPM); Conférence Générale Poids et Mésures (CGPM)	Asia Pacific Metrology Programme (APMP)	Measurement Standards Laboratory of New Zealand (MSL), a division of Industrial Research Limited	National Measurement Institute (NMI), a division of the Department of Tourism, Industry and Resources (DITR)
<b>Trade Measurement (legal metrology)</b>	Organisation International de Métrologie Legale (OIML); Comité International de Métrologie Legale (CIML)	Asia Pacific Legal Metrology Forum (APLMF)	Measurement and Product Safety Service (MAPSS), a division of the Ministry of Consumer Affairs	NMI - as above
<b>Accreditation of Laboratories</b>	International Laboratory Accreditation Cooperation (ILAC)	Asia Pacific Laboratory Accreditation Cooperation (APLAC)	International Accreditation New Zealand (IANZ)	National Association of Testing Authorities (NATA)
<b>Accreditation of Inspection Bodies</b>	International Laboratory Accreditation Cooperation (ILAC) / International Accreditation Forum (IAF)	Asia Pacific Laboratory Accreditation Cooperation (APLAC) / Pacific Accreditation Cooperation (PAC)	International Accreditation New Zealand (IANZ); Joint Accreditation System for Australia and New Zealand (JAS-ANZ)	National Association of Testing Authorities (NATA)
<b>Accreditation of Certification Bodies (for systems, products and personnel)</b>	International Accreditation Forum (IAF); International Auditor and Training Certification Assoc'n (IATCA)	Pacific Accreditation Cooperation (PAC)	Joint Accreditation System for Australia and New Zealand (JAS-ANZ)	Joint Accreditation System for Australia and New Zealand (JAS-ANZ)

<sup>37</sup> These bodies are recognized as “Specialist Regional Bodies” in the context of the APEC Committee on Trade and Industry, Sub-Committee on Standards and Conformance (SCSC).

<sup>38</sup> These are New Zealand’s technical infrastructure bodies. The Ministry of Economic Development is responsible for standards and conformance policy and for liaison with, and coordination of, the infrastructure bodies.

## Appendix Three: Abbreviations, Acronyms and Websites

APLAC	Asia Pacific Laboratory Accreditation Cooperation	<a href="http://www.aplac.org">www.aplac.org</a>
APLMF	Asia Pacific Legal Metrology Forum	<a href="http://www.aplmf.org">www.aplmf.org</a>
AS	Australian Standard	
BIPM	Bureau International Poids et Mésures [International Bureau of Weights and Measures]	<a href="http://www.bipm.fr">www.bipm.fr</a>
CAB	Conformity Assessment Body	
CRI	Crown Research Institute	
DITR	Department of Industry, Tourism and Resources (Australia)	<a href="http://www.industry.gov.au">www.industry.gov.au</a>
EA	European Cooperation for Accreditation	<a href="http://www.european-accreditation.org">www.european-accreditation.org</a>
EMS	Environmental Management Systems (associated with ISO 14001:2004)	
ESR	Institute of Environmental Science and Research	<a href="http://www.esr.cri.nz">www.esr.cri.nz</a>
EU	European Union	<a href="http://www.europa.eu.int">www.europa.eu.int</a>
EurepGAP	Euro-Retailer Produce Working Group (Eurep) Good Agricultural Practice [Global Partnership for Safe and Sustainable Agriculture]	<a href="http://www.eurep.org">www.eurep.org</a>
FSANZ	Food Standards Australia New Zealand	<a href="http://www.foodstandards.gov.au">www.foodstandards.gov.au</a>
IAF	International Accreditation Forum	<a href="http://www.iaf.nu">www.iaf.nu</a>
IANZ	International Accreditation New Zealand	<a href="http://www.ianz.govt.nz">www.ianz.govt.nz</a>
IEC	International Electrotechnical Commission	<a href="http://www.iec.ch">www.iec.ch</a>
ILAC	International Laboratory Accreditation Cooperation	<a href="http://www.ilac.org">www.ilac.org</a>
IRL	Industrial Research Limited	<a href="http://www.irl.cri.nz">www.irl.cri.nz</a>
ISO	International Organisation for Standardization	<a href="http://www.iso.org">www.iso.org</a>
ISO-CASCO	ISO Conformity Assessment Committee	<a href="http://www.iso.org">www.iso.org</a>
JAS-ANZ	Joint Accreditation System of Australia and New Zealand	<a href="http://www.jas-anz.com.au">www.jas-anz.com.au</a>
MAF	New Zealand Ministry of Agriculture and Forestry	<a href="http://www.maf.govt.nz">www.maf.govt.nz</a>
MAPSS	Measurement and Product Safety Service (New Zealand)	<a href="http://www.consumeraffairs.govt.nz/measurement">www.consumeraffairs.govt.nz/measurement</a>
MED	Ministry of Economic Development (New Zealand)	<a href="http://www.med.govt.nz">www.med.govt.nz</a>
MFAT	Ministry of Foreign Affairs and Trade (New Zealand)	<a href="http://www.mfat.govt.nz">www.mfat.govt.nz</a>
MLA	Multilateral Agreement / Arrangement	
MORST	New Zealand Ministry of Research Science and Technology	<a href="http://www.morst.govt.nz">www.morst.govt.nz</a>
MOU	Memorandum of Understanding	
MRA	Mutual Recognition Agreement	
MSL	Measurement Standards Laboratory (New Zealand)	<a href="http://www.irl.cri.nz/msl">www.irl.cri.nz/msl</a>

NATA National Association of Testing Authorities (Australia) [www.nata.asn.au](http://www.nata.asn.au)

NGO Non-governmental Organisation

NZFSA New Zealand Food Safety Authority [www.nzfsa.govt.nz](http://www.nzfsa.govt.nz)

NZS New Zealand Standard

NZTE New Zealand Trade and Enterprise [www.nzte.govt.nz](http://www.nzte.govt.nz)

OIML Organisation International de Métrologie Legale / International Organisation of Legal Metrology [www.oiml.org](http://www.oiml.org)

QMS Quality Management System (associated with ISO 9001:2000 and ISO 14000)

S&C Standards and Conformance

SAM Standards, Accreditation and Measurement forum

SNZ Standards New Zealand [www.standards.co.nz](http://www.standards.co.nz)

SPS WTO Agreement on the Application of Sanitary and Phytosanitary Measures  
[www.wto.org](http://www.wto.org)

TBT WTO Agreement on Technical Barriers to Trade [www.wto.org](http://www.wto.org)

TTMRA Trans-Tasman Mutual Recognition Arrangement [www.med.govt.nz/ttmra](http://www.med.govt.nz/ttmra)

WTO World Trade Organisation [www.wto.org](http://www.wto.org)