



**26<sup>th</sup> ASIA-PACIFIC LEGAL  
METROLOGY FORUM AND  
WORKING GROUP MEETINGS**  
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## Economy Report - 2019

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### *Australia*

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## SECTION 1 – Organisation and structure for metrology

### Organisation Structures

#### NMI Australia (NMIA)

NMIA is a division within the Department of Industry, Innovation and Science. It is Australia's peak measurement body responsible for trade measurement and biological, chemical, legal and physical metrology. Our vision is to provide measurement policy, science and regulation that underpins the economy and well-being of Australia. NMIA is currently focusing on greater engagement with and increasing services to the energy, health, environment and food sectors.

#### Legal Metrology Branch

NMIA's Legal Metrology Branch administers Australia's legal metrology infrastructure. Its policy aims are to provide an efficient and effective national trade measurement system across Australia for the community, business and government. NMIA focus on achieving this by building confidence in all aspects of trade measurement through a unified, national metrological system. Legal Metrology Branch also work with other regulators that depend upon the measurement system to develop and maintain systems and services that support the use of accurate measurement in areas such as road safety and resource management.

The Legal Metrology Branch's consists of five sections – Policy and Regulatory Services; Business Services, Compliance & Communications; Measurement Law Review; Training and Technology Transfer; and Trade Measurement Services. Training and Technology Transfer provides services across all branches of NMIA.

The Branch's objectives are to maintain a high level of general awareness and transparency in trade measurement transactions; to ensure an effective compliance framework; and to continually improve Australia's legal metrology framework.

#### Regulator performance structure and reporting requirements

NMIA annually self-assesses its performance against a set of Key Performance Indicators (KPI's) in the government's Regulator Performance Framework. The framework consists of six outcomes-based KPI's focused on reducing regulatory burden, communications, risk-based and proportionate approaches, efficient and coordinated monitoring, transparency and continuous improvement. NMIA is required to review how it operates and the imposition it creates when administering regulation.

NMIA publishes an annual report which is based on its self-assessment and is externally validated by stakeholders. The report identifies the extent to which NMIA is achieving the KPIs in the Framework and supports NMIA to recognise areas for improvement.

### Legislative Frameworks

#### Update on the Measurement Law Review

In November 2017, the Australian Government [announced](#) the first comprehensive review of Australia's measurement legislation since the commencement of the *National Measurement Act 1960*.

The [Measurement Law Review](#) (the Review) aims to simplify, streamline and modernise Australia's measurement framework to ensure it meets Australia's measurement needs now and into the future. The Review is nearing the completion of the initial [public consultation phase, with consultations on the final two discussion papers to close in December](#). In-depth analysis of stakeholder submissions has begun on the following aspects of Australia's measurement framework:

1. Scope of Australia's Measurement Laws
2. Traceability
3. Measuring Instruments
4. Transactions Based on Measurement
5. Third-party Arrangements
6. Compliance Arrangements

Following the completion of this analysis, a range of options will be developed for consideration by Government in 2020.

## International arrangements and engagement

### Meetings attended

Australia was represented at the following international meetings since the 2018 APLMF meeting:

- The 54th CIML Meeting in October 2019 in Bratislava, Slovak Republic;
- Pacific Island Forum Secretariat Quality Infrastructure Workshop from 2-6 September 2019 in Nadi, Fiji;
- The OIML Certification System (OIML-CS) meeting in March 2019, hosted by NMI Certin in Delft, The Netherlands;
- As co-convenor with Canada, Australia attended the OIML TC 7/SC 5/p 1: Dimensional measuring instruments meeting in May 2019, hosted by Measurement Canada in Ottawa, Canada;
- As convenor, Australia attended the OIML TC 12/p 1: Instruments for measuring electrical quantities meeting in May 2019, hosted by the Finnish Safety and Chemicals Agency Tukes in Helsinki, Finland;
- The Digital Transformation of Legal Metrology Workshop "European Metrology Cloud" in May 2019, hosted by PTB in Berlin, Germany
- The OIML TC 8/SC 3/p 4 (Dynamic volume and mass measurement) in March 2019, hosted by the National Regulator for Compulsory Specifications (NRCS) in Cape Town, South Africa.

NMIA will be hosting the next OIML TC 9/SC 2/p 10 meeting as part of the revision of OIML R 51 Automatic catchweighing instruments in the first half of 2020 in Sydney, Australia.

In March 2019 NMIA became an Issuing Authority, Test Laboratory and Utilizer for OIML R 50 (Belt Weighers) under the OIML-CS.

### International Training

- NMIA delivered training on electrical measurements to officials from Saudi Standards, Metrology and Quality Organization.

## SECTION 2 – Key activities of 2018/19

### Working with industry

#### Public consultations

In the period November, 2018 to October, 2019 the following public consultations were undertaken:

- Development of a national regulatory framework for Near Infrared (NIR) instruments used for trade in the sugar industry for quality measurements;
- The adoption of OIML R 50 (2014) as Australia’s pattern approval standard for belt weighers;
- Measurement Law Review Papers 2-4 “Measurements in Everyday Life” sought stakeholder views on the topics of; Traceable Measurements, Measuring Instruments and Measurement-Based Transactions;
- Revision of OIML R 117 Dynamic measuring systems for liquids other than water; NMIA sought comments from Australian stakeholders on the 2<sup>nd</sup> Committee Draft
- Development of new OIML Recommendation - Continuous totalizing automatic weighing instruments of the arched chute type: NMIA sought comments from Australian stakeholders on the 2<sup>nd</sup> and 3<sup>rd</sup> Committee Drafts;
- Revision of OIML R 51 Automatic catchweighing instruments; NMIA sought comments from Australian stakeholders on the 1<sup>st</sup> Working Draft;
- Measurement Law Review Papers 5 and 6 “Third Party Arrangements” and Compliance Arrangements” were launched.

#### Domestic training

- In 2018/2019 the Training and Technology Transfer Section offered classroom-based training courses and consultancies only, with **over 400** participants attending **35** face-to-face metrology courses.
- The completion and implementation of the following e-learning commenced in 2018/2019:
  - Verifying fuel dispensers;
  - Verifying non-automatic weighing instruments;
  - Weighbridge operations..

### Protecting consumers

The fundamental principle of NMI’s National Compliance Policy is to minimise harm without creating unnecessary compliance costs or burdens for business. This approach incorporates three compliance principles:

1. Proportionality – any regulatory response is proportionate to the impact of any actual or potential harm.
2. Consistency – a consistent approach is taken when interpreting, applying and enforcing national trade measurement legislation.
3. Transparency – NMIA is accessible, provides clear guidance on all aspects of our legislation and is open about our policies, processes and, where permitted, its decisions.

### A Risk-Based Approach to Minimise Harm

The aim of NMI’s administration of legal metrology regulatory compliance is to minimise harm without creating unnecessary compliance costs or burdens for business.

We measure risk in terms of the harm and likelihood of regulatory non-compliance. Some of the factors used to determine harm include:

- impact on confidence in the measurement system
- extent of financial detriment to consumers or industry
- impact on maintaining a level playing field for business competition
- ability of consumers to make informed purchasing decisions.

In assessing risk we consider the impact of any single instance and/or the cumulative effect of many individual instances of non-compliance. We use a risk-based approach when:

- prioritising the development and maintenance of legal metrology infrastructure (for example, pattern approval standards, National Instrument Test Procedures and appointment of Authorities)
- targeting compliance activities
- determining the appropriate and proportionate regulatory response where non-compliance is identified.

### Recognising compliance history

Consideration of risk when determining regulatory responses will also be guided by previous compliance history. For example, NMI may:

- consider appropriate levels of surveillance for particular traders that have demonstrated a commitment to compliance through adoption of robust quality assurance systems or an industry code of conduct
- prioritise responding to complaints received about potential breaches of trade measurement law based on the compliance record of industry sectors and/or particular traders.

### Program-Driven Compliance Activities

NMI combines market intelligence, consumer complaints and stakeholder feedback with compliance history to plan and implement targeted inspection programs for industry sectors that have a higher risk of non-compliance with the requirements of trade measurement law.

NMI undertakes pilot programs to assess the level of risk associated with non-compliance in particular or emerging industry sectors. These pilot programs are used to determine whether a targeted program needs to be introduced.

NMI allocates a small portion of its resources to maintain a base level of compliance monitoring activity through random audits. These provide visibility in the wider market. The 'potential' for a low-risk entity to be subject to some form of compliance activity can be a sufficient incentive for these entities to continue to voluntarily meet their obligations.

NMI also takes advantage of the presence of its trade measurement inspection force in the field to undertake market surveillance and investigation activities on behalf of other Commonwealth agencies, such as the Department of Health and the Australian Competition and Consumer Commission.

## Projects - What we did and what we learned

### Regulatory Amendments

NMIA recently completed amendments to Australia's *National Measurement Regulations 1999* and *National Trade Measurements Regulations 2009*. These amendments:

- Align the Australia's measurement framework with the 2018 redefinition of the SI base units of measurement; and
- Implemented a new, more sustainable fee structure for the provision of NMIA regulatory services, including pattern approval testing and certification, the issuing of servicing licences and the appointment of legal metrology authorities and utility meter verifiers.

These projects emphasised the value of providing multiple avenues of engagement with internal and external stakeholders, including video conference, email, internet service and face-to-face meetings. By ensuring that all stakeholders are able to have their say and provide meaningful input to regulatory amendments that affect them, the overall outcome and implementation is greatly improved.

## SECTION 3 – Future focus

### New initiatives planned (next 1-2 years)

#### National Compliance Plan

The National Compliance Plan for 2019-2020 has been launched and aimed to help support confidence in the accuracy for measurements used in trade for Australian consumers and businesses.

#### Concentrated national audit programs

Under this program methodology, first introduced in 2018-19, all trade measurement inspectors will be involved together in a concentrated national audit, focused on a single industry sector over a specific time period, to assess compliance with trade measurement regulations.

Two major factors determining which traders are targeted in these national audits will be:

- previously identified non-compliance
- relative market shares of industry participants

Four concentrated national audit programs will be undertaken in 2019-20:

#### 1. Major supermarkets

Major supermarket audits will include a focus on the compliance of measuring instruments as well as products that are packed 'in-store' (such as bakery goods) and supermarkets' own brands, as these represent an increasing part of the retail offering.

#### 2. Retail fuel

Compliance monitoring has identified that the proportion of retail fuel dispensers inaccurate to consumer disadvantage doubled between 2016-16 and 2017-18, from 2.4 per cent to 4.8 per cent. This trend was confirmed during the 2018-19 Retail Fuel audit program.

#### 3. Meat, fish and poultry retail

This program will include a particular focus on traders identified as non-compliant during the 2017-18 Meat, Fish and Poultry Retail program.

#### 4. Licensed premises

This program will focus on the sale of beer and prescribed spirits in licensed premises to ensure consumer are receiving correct measure.

#### Verified instrument audits

The integrity of most trade measurement transaction depends on accurate measuring instruments. NMI appoints organisations called Servicing Licensees to ensure trade instruments are accurate before being used (verification). This program will audit recently verified instruments to ensure that verification is being undertaken correctly.

## Pre-Market Surveillance

NMIA wants to work with our partners in the Asia-Pacific region to run a pre-market surveillance pilot program in 2020. The objectives of the pilot project are to investigate:

- the risks of non-conformance with approved type
- the logistics of conducting testing and sharing results
- the potential benefits of an on-going regional program.

The project will aim to take a sample of newly manufactured and supplied measuring instruments from across the region and subject them to the testing and evaluation as specified in the relevant OIML Recommendation(s).

## Electricity Meters and Systems

Following consultation with Australian industry stakeholders, NMI will be implementing an updated version of NMI M 6, Australia's national standard for the pattern approval of electricity meters. The new standard will provide greater flexibility for industry in the approval of meters and devices used to measure electric energy for trade, by recognising both IEC and OIML technical requirements. The new NMI M 6 will also allow for the testing and approval of innovative new instruments and systems such as, smart street light metering and electric vehicle charging stations.

## Emerging issues – challenges and opportunities

### Digital metrology

Global markets and economies are undergoing the fourth industrial revolution (industry 4.0). NMIA is currently examining how Australia's measurement framework can effectively and efficiently transform to support the digital systems and processes of the future as well as opportunities to provide enhanced services and regulatory responses that result in significantly better economic and regulatory savings for Australian industry.

### Shift towards Principles-Based Legislation

The Australian Government is committed to reducing the amount of prescription in regulations and to have more principles-based legislation where appropriate. By having a clear articulation of the underpinning policies for legal metrology, innovative technologies could be accommodated in the legal metrology system more easily, brought to market sooner and not be delayed due to prescriptive arrangements.