



The Metrology Management System *New Zealand and APLMF Perspectives*

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Outline

Perspectives as a regulator of legal metrology at a national level and APLMF at a regional level:

- Introduce Ministry of Business, Innovation and Employment and the **Trading Standards** team
- Overview Key elements of the **legal metrology system in New Zealand** (addressing questions in seminar template)
- Describe links between our national system and the wider regional and global specialist bodies that form the **International Quality Infrastructure**
- Introduce **Asia-Pacific Legal Metrology Forum (APLMF)** and give an overview of its current work programme highlighting:
 - APLMF / APMP Joint **Guide 1 National Metrological Infrastructure for Developing Economies**
 - **Metrology Awareness** raising project

Ministry of Business, Innovation and Employment (MBIE)

- Our purpose is to **grow** the New Zealand economy to provide a better standard of living **for all** New Zealanders
 - '**Grow**' relates to the economy. To achieve the standard of living and quality of life we aspire to, we need a better-performing economy that delivers sustainable growth
 - '**For all**' captures growth for New Zealanders now and in the future – growth that doesn't compromise our environment or the safety of our workplaces

<http://www.mbie.govt.nz/about/who-we-are>

- We do this by working with others to **help businesses** to be more **competitive**, improving job opportunities for all and by ensuring we have the **best regulatory systems**
- **Legal Metrology has a significant role** in achieving this purpose



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

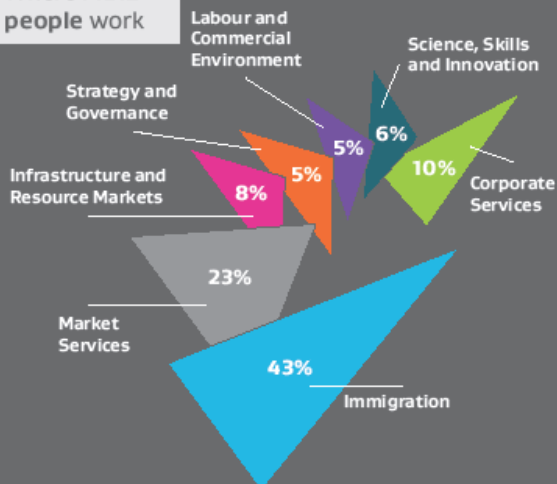
TRADING
STANDARDS



3360
MBIE people

about **2940** within
New Zealand and
420 offshore

Where MBIE
people work



59
Number of **offices**
within NZ

6%
in other parts of both
the North and South
Islands

6%
in Canterbury

24%
of our people are
based in **Auckland**

51%
of our people are
based in **Wellington**

13%
of us work
overseas

SEPTEMBER 2014

21

Locations
overseas

20 for Immigration NZ
+ 3 Science, Skills and Innovation
councillors based in Washington D.C,
Brussels and Beijing
WE'RE A GLOBAL ORGANISATION



4.553
billion

MBIE's total budget
for 2013/14, including



3.957b
non-departmental



0.596b
departmental



105

the number of **properties**
we occupy, both here
and overseas



3110

Twitter followers
and growing!



2800

media enquiries a year



144

number of **Acts** and other
pieces of **legislation** that
MBIE is responsible for

A SNAPSHOT



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
MINIHA WHAKATUTUHI



14

our **ministers**



14

Auckland
office sites

Trading Standards - location



- The **Measurement Standards Laboratory** and **International Accreditation New Zealand** are under the supervision of MBIE

Trading Standards Responsibilities

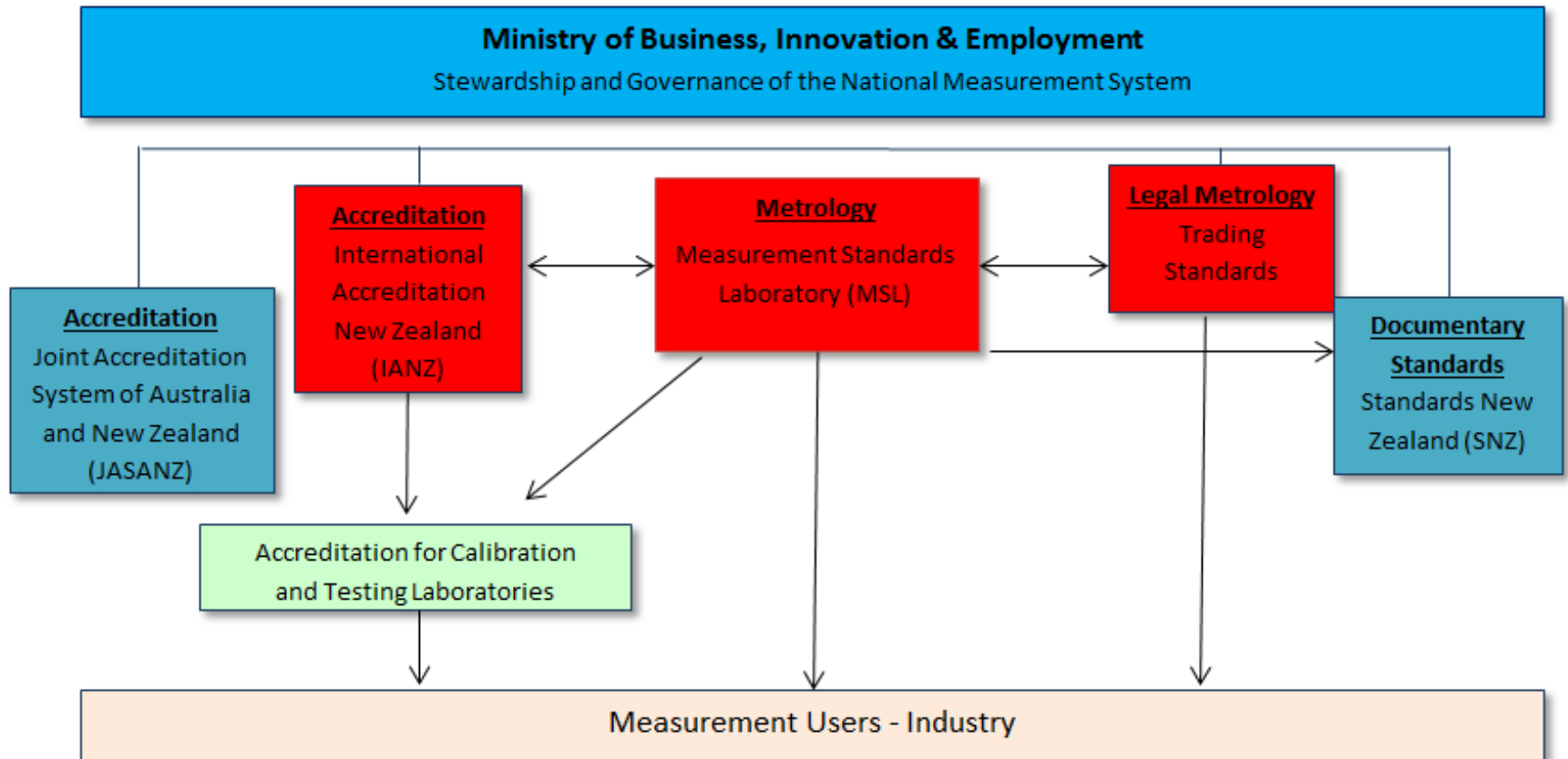
- Consumer Product Safety
- Fuel Quality Monitoring
- Legal Metrology (focus on trade measurement)
- Auctioneers and Motor Vehicle Traders

Aims to:



- Protect consumers and keep them safe
- Build consumer and business confidence
- Provide a level 'playing field' for business
- Support domestic and international trade

Standards, Accreditation and Metrology System (National Quality Infrastructure)



Agencies responsible for metrology system in RED

Metrology System - New Zealand

Trading Standards

- Responsible for Trade Measurement system
- National Legal Metrology Authority
- Co-ordination leadership role but not Central Metrology Authority / no formal National Metrology policy (as described in OIML D1)
- Links to APLMF and OIML



Measurement Standards Laboratory

- National Metrology Institute (Part of Callaghan Innovation)
- Responsible for Scientific and Industrial Metrology
- Hold National Primary Standards
- Links to APMP and BIPM

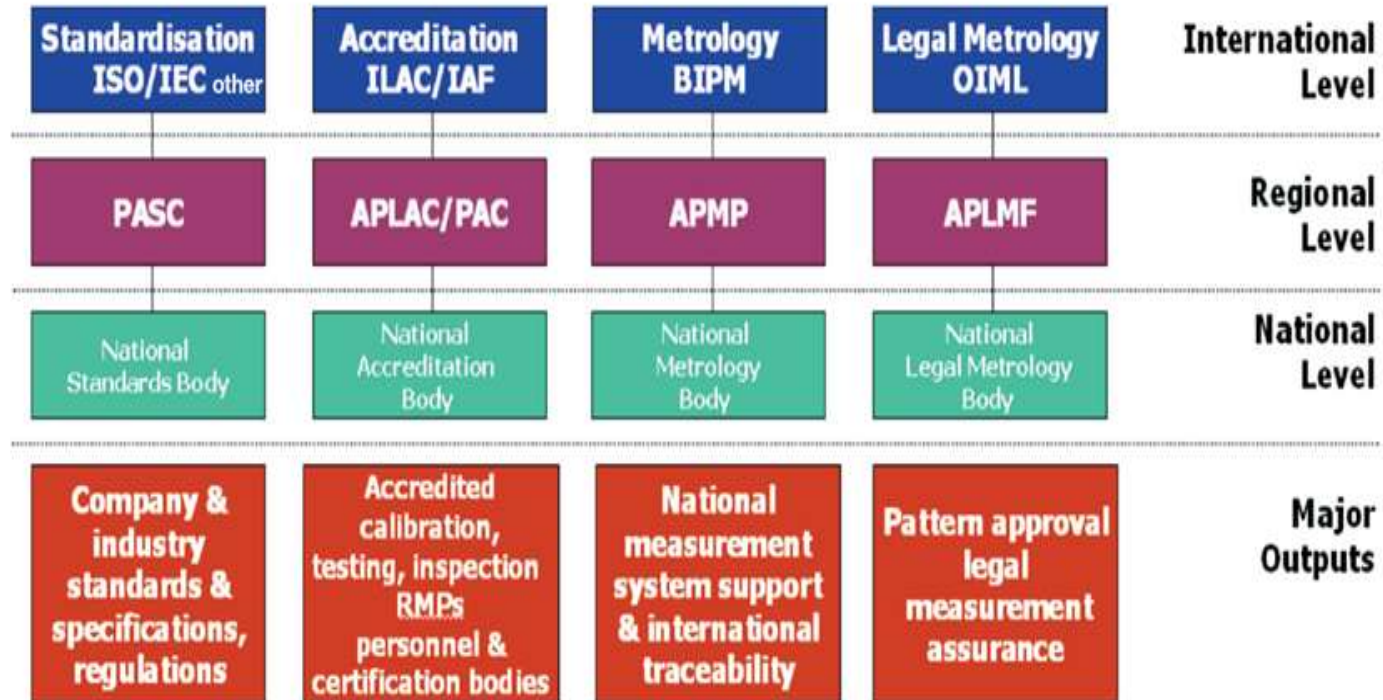


International Accreditation New Zealand

- National Accreditation Body
- Metrology Laboratories NZ/ISO/IEC 17025 Accreditation
- Links to APLAC and ILAC / IAF



International Quality Infrastructure



Regional Specialist Regional Bodies:

Standardisation:

- Pacific Area Standards Congress (PASC)

Accreditation:

- Pacific Accreditation Cooperation (PAC)
- Asia-Pacific Laboratory Accreditation Cooperation (APLAC)

Metrology:

- Asia-Pacific Metrology Programme (APMP)
- Asia-Pacific Legal Metrology Forum (APLMF)

Elements of Trade Measurement System

Fuel Supply

- \$11.5 billion per annum
- 1,200 Service stations
- Over 20,000 dispensers

See:

OIML D1
Considerations for a Law on Metrology





Legislation

Weights and Measures Act 1987

- Focus on **measurement used for trade**
- Consistent with the relevant **OIML Recommendations**
- **Sets in place system for:**
 - Calibrating and verifying **physical standards**
 - **Accreditation scheme** for private sector verifiers (Accredited Persons)
 - **Type approval regime** for conducting pattern approval examinations
 - **Ensuring trader compliance** (enforcement powers and a range of sanctions)
- Act **does not cover all areas of legal metrological control**
- **Excluded / responsibility of other Ministries and legislative controls:**
 - Medical Measuring Instruments - Ministry of Health
 - Environmental Measurement – Environmental Protection Agency
 - Utilities – Gas and Electricity Act / Water metering Code of Practice
 - Transport – New Zealand Police
- Trading Standards provides expert guidance and promotes OIML ‘best practice’ legal metrological controls in these areas with variable success - Not supported by National Metrology Policy



Accreditation Scheme

Private sector verifiers (Accredited Persons) ensure trade equipment is verified correctly and offer annual voluntary certification

Accredited Persons (APs) have to:

- Operate a **quality management system** (based on ISO 9000 principles)
- Use verified testing **standards** (mass, volume and length)
- Undergo regular **audits** of their systems and competence by Trading Standards
- Work subject to market surveillance review

Accredited Persons (APs):

- Currently **44 accredited organisations**
- Comprises of **260 accredited technicians**
- Accredited technicians verify and certify **45,000 approved weighing and measuring instruments** in-situ at trade premises (includes over 1500 verified weighbridges throughout NZ)



Enforcement / Market Surveillance

Ensuring trader compliance with legislative requirements through effective enforcement and market surveillance



Trading Standards officers undertake Marketplace surveillance at:

- At Retail Level
- At wholesale / Importer Level
- On the work of Accredited Persons



This involves:

- Testing of weighing and measuring equipment used for trade
- Response to consumer and trader complaints and enquiries (Supported by Telephone Call Centre, website, social media)
- Average Quantity Reference Testing on pre-packaged goods
- Surveillance audits on Accredited Persons
- Using a 'tool box' of interventions ranging from: providing information, letters of warning, infringement fines (\$200-\$500) to Court prosecution

Market Surveillance



- Limited resources and funding **regulators struggle** to undertake sufficient and effective market surveillance activities
- Can result in **consumer detriment** and **market failure** caused by businesses facing unfair competition from non-compliant products - **dumping**
- Initiatives underway to improve effectiveness:
 - Updated revisions of **OIML Recommendations R 87 and R79**
 - **Developing risk based approach** to market surveillance: focus on high value products and areas with high non-compliance
 - Use of **I-auditor software and I-pads** to improve information quality and reporting by field inspectors. Improved market intelligence resulting in better resource allocation decisions
 - Working with ASEAN economies on **development of regional Quantity Mark** for packaged goods

**TRADING
STANDARDS**

The logo for Trading Standards, featuring the text "TRADING STANDARDS" in a bold, sans-serif font, with a horizontal bar below it divided into three colored segments: blue, purple, and orange.

NZ International Legal Metrology Connections



www.oiml.org

International Organisation of Legal Metrology

- Intergovernmental treaty organisation/standard-setting body
- Develops model regulations, standards and documents
- Provides mutual recognition systems
- Facilitates the exchange of knowledge and competencies

Asia-Pacific Legal Metrology Forum



www.aplmf.org

- Regional grouping of legal metrology authorities
- 26 member economies represent: 2.9 billion people / 39 trillion \$US GDP
- Objective: legal metrology development and free trade promotion through removal of technical barriers
- Take OIML Recommendations and Guidance documents and apply them practically within the region
- NZ took over leadership and secretariat Oct 2015



Current Work Programme

- **MEDEA project**

- Metrology Enabling Developing Economies in Asia (MEDEA)
- 10 Work streams, Joint and individual APLMF and APMP activities.
- See MEDEA website: <https://www.ptb.de/tc/index.php?id=6461>
- Managed PTB, Funded by German Government



- **Training Courses**

- 2015: 5 completed
- 2016: 3 Scheduled: Fuel Dispensers, Verification of Mass Standards, Non-automatic Weighing Instruments
- Focus on identifying and developing trainers e.g. Fuel dispenser course
- Surveying economies to identify test procedures for instruments
- Developing library of test procedures to be available on APLMF website to promote harmonised regional approach

National Metrological Infrastructure For Developing

Economies: Guide 1

(MEDEA APMP-APLMF Joint Project 1)



Guide 1 (1st Edition) - useful and informative guide to developing a National Infrastructure for Legal Metrology with a focus on the APEC region

- Provided an overview of metrology generally, and the linkages between metrology and legal metrology

MEDEA project - opportunity to revise and extend its scope to cover all aspects of the National Metrology Infrastructure

Aim is not to duplicate but complement the content of other international documents from authoritative sources such as OIML D1

- To distil this information to make more easily accessible and easy to apply

Second edition:

- Expand scope to include both Metrology and Legal Metrology
- Take into account recent international developments in both areas



National Metrological Infrastructure For Developing Economies: Guide 1



(MEDEA APMP-APLMF Joint Project 1)

Second edition:

- **Provide guidance** for the development of a complete National Metrology Infrastructure with a focus on the needs of developing economies
- Produced by a small working group led by **Dr Grahame Harvey** (APLMF) and **Dr Abdul Rashid Bin Zainal Abidin** (APMP).
- **Peer reviewed** by international experts including those from PTB, APLMF and APMP

Reviewed and signed off: November APMP / APLMF meetings

Published: early 2017

Updated guide will be useful resource for all economies





Raising Awareness of Metrology

(MEDEA APMP-APLMF Joint Project 2)



The objective: improve the sharing of information resources between member economies to enable them to increase the awareness of the importance of metrology with consumers, industry, other regulators and government

Work package main activities:

1. Develop joint APMP-APLMF metrology web portal to facilitate sharing of information resources:

- Create a metrology web portal that will introduce and link to useful information on metrology websites including: APMP, APLMF, OIML, BIPM and other authoritative sources
- The overarching design objective is simplicity and ease of use, with multiple layers and links to more technical, complex information in an identified library
- The portal will enable easy access resources that will meet multiple needs for communication and engagement with stakeholders on issues relating to metrology

2. Develop best practice for improving awareness of metrology:

- Development and use of case studies of successful metrology interventions or information campaigns
- Development, promotion and sharing of resource and collateral materials
- Deliver workshop to share lessons and best practice (planned for early 2017)

Raising Awareness of Metrology

(MEDEA APMP-APLMF Joint Project 2)

Resources will be of varying level of technicality, as material will need to be used across multiple settings, and by organisations/people who have varying understanding of metrology issues. Including:

- **Material to support public information campaigns**, to build consumer confidence in products and services, particularly in measuring safety in food, safety of products, trust in the price being charged for metered services
- **Information to build understanding of industry stakeholders** on the importance of metrology infrastructure and standards and enforcement activities, in terms of growing trade, ensuring safety and increasing the value of their business
- **Information for government agencies and other regulators**, particularly information relating to costs and benefits/value for money, to support the activities and infrastructure needs of National Measurement Institutes (NMIs) and Legal Metrology Authorities (LMAs)



Raising Awareness of Metrology

(MEDEA APMP-APLMF Joint Project 2)

NEXT STEPS – 2016/17

- **July- August 2016** — Engaged web-design company (www.experience.net.nz) to develop ‘mock up’ of web portal design in consultation with project team
- **July–October 2016** — Collect and assess case studies and develop a methodology which can be used to identify key success factors. Develop resources for the portal to provide accessible information on the economic and social impact of metrology
- **November 2016 APLMF/APMP meeting** — Working session to discuss the proposed approach for the project, test the design and proposed material for the portal with member economies, test proposed methodology of cases studies
- **Early 2017 Workshop** — Build members’ understanding of different approaches, tools and techniques for raising awareness, with invited guests who have undertaken programmes and using case study methodology to build skills of participants
- **April 2017** — Web portal goes live



**Thank you for your time and
attention.**

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