## SIM Report to Euramet



On behalf of Claire Saundry (NIST) SIM President

SIM Quality System Task Force (QSTF) Chair Georgette Macdonald NRC Canada Georgette.Macdonald@nrc-cnrc.gc.ca

May 2019

### Sistema Interamericano de Metrología (SIM)

**Vision:** A representative, transparent, competent, and worldwide-recognized regional metrology organization.

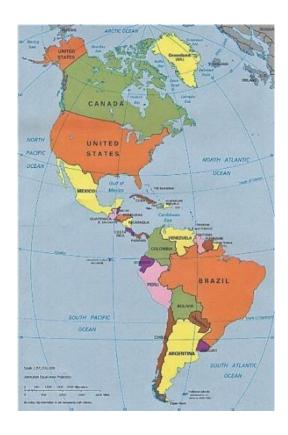
**Mission:** To promote and support an integrated measurement infrastructure in the Americas which enables each member national measurement institute to stimulate innovation, competitiveness, trade, consumer safety and sustainable development by effectively participating in the international metrology community.

**Values:** Cooperation, competence, effectiveness, fairness, solidarity, transparency, efficiency and inclusion.

**Membership**: National Metrology Institutes (NMIs) in 34\* nations in the Americas

**International Role:** Regional Metrology Organization (RMO) for the Western Hemisphere





#### **SIM Strategic Objectives**

I. Develop SIM NMIs

II. Building a Strong SIM Organization



III.Fulfill Regional Metrology
Organization Obligations
under the CIPM MRA

# **2019 SIM Innovation Projects**



- Meeting of SIM TC WG Chairs with focus on Procedures for Reviews of CMCs and the Importance of Regional Measurement Comparisons (2 April)
- Joint QSTF/TC meeting on Requirements and Implementation of revised ISO/IEC 17025 and 17034: Expectations of the Technical Peer Reviews (3 April)
- IADB workshop, organized by CAMET, on Dialogue Between Private and Public Sectors (4 April)
- Challenges in Metrology for Advanced
   Manufacturing and the 4th Industrial Revolution
   hosted by NORAMET (18/19 June)
- Development of new SIM Website
- Twelve internships (from Trinidad and Tobago, Colombia, Ecuador, Peru, Brazil, Chile and Argentina) hosted at 4 NMIs (US, Mexico, Colombia and Argentina)

## Capacity building at SIM NMIs



- 15 SIM representatives to NCSL International Technical Exchange for training
- 4 metrologist from 3 SIM countries to NIST for 3 –
   12 months working with NIST metrologist in 2019
- Hosting "Fundamentals of Metrology" course for SIM 18 – 22 March 2019

(with support from NIST)

 Training Workshop on ISO/IEC 17025:2017 to Support Measurement and Calibration Laboratories (7-9 March 2019)

(with support from the German Development Fund/PTB)

- Metrology for Sustainable Energy technologies and the Environment (M4SET)
- Metrology for Energy Efficient Technologies (M4EE)
   (with support from the Organization of American States)

## Mass traceability for SIM after redefinition



- NRC and NIST use Kibble balances to realize the kilogram in vacuum with traceability to the Planck constant h
- Intercomparisons between NIST and NRC are conducted regularly to guarantee equivalence of kilogram dissemination to SIM via the "consensus kg"
- Individual 1 kg mass standards were calibrated in vacuum in the NIST and NRC Kibble balances
- Mass standards distributed to participating SIM NMIs at the 2018 General Assembly



## Establish SIM as a legal entity

The constitution of SIM as an international not-forprofit, non-governmental legal entity with Headquarters in Montevideo, Uruguay was approved at 2016 SIM General Assembly

The legal documents were presented to the Government of Uruguay in November 2016, with the signature of eleven NMIs. Currently there are 27 signatories to the legal entity



#### **New developments:**

- Claudia Santo appointed SIM Secretariat
- A bank account is being set up
- SIM General Assembly meeting in September was the first official General Assembly as a legal entity
- Plans for membership dues are being developed and debated

#### **SIM Council Members**



President:

Claire Saundry (NIST, USA)

Quality System Task Force (QSTF) Chair:

Georgette Macdonald (NRC, Canada)

Technical Comittee (TC) Chair:

Salvador Echeverria (CENAM, Mexico)

**Project Coordinator:** 

Javier Arias (CENAMEP, Panama)

Profesional Development Coordinator:

Rodrigo Costa (INMETRO, Brazil)

ANDIMET Coordinator:

Edwin Cristancho (INM, Colombia)

**CAMET Coordinator:** 

Claudia Estrada (CIM, El Salvador)

**CARIMET Coordinator:** 

I-Ronn Audain (SKNBS, St. Kitts and Nevis)

NORAMET Coordinator:

Victor Lizardi (CENAM, Mexico)

SURAMET Coordinator:

Pedro Ibarra (INN, Chile)

#### SIM General Assembly NIST, Gaithersburg 24 – 28 September 2018

- 150 individuals, with 100+ foreign delegates from 27 countries
- Five days of meetings
  - QSTF meeting
  - Mass workshop
  - Quality System workshop
  - General Assembly
  - NIST tours





#### **SIM Technical Committee**

TC Chair: Salvador Echeverria, CENAM

Deputy Chair: Lisa Karam, NIST



MWG 1: Electricity and Magnetism Lucas di Lillo INTI/Argentina Idilillo@inti.gob.ar  MWG 3: Thermometry Edgard Méndez	MWG 2: Photometry and Radiometry Thiago Menegotto INMETRO/Brazil tmenegotto@inmetro.gov.br  MWG 4: Length Karina Bastida
CENAM/Mexico emendez@cenam.mx	INTI/Argentina bastida@inti.gob.ar
MWG 5: Time and Frequency Raúl Solís CENAMEP/Panama rsolis@cenamep.org.pa Vice Chair: Dr. Marina Gerstvolf NRC/Canada marina.gertsvolf@nrc-cnrc.gc.ca	MWG 6: Ionizing Radiation and Radioactivity Raphael Galea NRC/Canada raphael.galea@nrc-cnrc.gc.ca
MWG 7: Mass & Related Quantities Aldo Quiroga INACAL/Peru aquiroga@inacal.gob.pe	MWG 8: Chemistry (Amount of Substance) Valnei Da Cunha INMETRO/Brazil vscunha@inmetro.gov.br
MWG 9: Acoustics, Ultrasound and Vibration Gustavo Ripper INMETRO/Brazil gpripper@inmetro.gov.br	MWG 10: Flow and Volume Roberto Arias CENAN/Mexico rarias@cenam.mx
<b>MWG 11: Legal Metrology</b> Paulo Roque Silva INMETRO/Brazil prsilva@inmetro.gov.br	MWG 12: Quality System Elizabeth Ferreira LATU/Uruguay eferrei@latu.org.uy  Vice chair: Silvio dos Santos INMETRO/Brazil sfsantos@inmetro.gov.br
MWG 13: Statistics and Uncertainty Antonio Possolo NIST/USA antonio.possolo@nist.gov	

## SIM QSTF



Ensuring efficient and effective review of the quality system of SIM NMIs to ensure conformance with the expectations of the CIPM MRA and to serve other quality system approval needs of SIM NMIs

- •16 voting members
  - 8 Member States and 8 Associates of the CGPM
- •1 International Organization and 30 DIs
- Annual reports submitted by 30 January
- •Meetings in 2018: 19-23 March (Bogota, Colombia) and 24 -25 September (Gaithersburg, MD USA)
- Meeting in 2019: 1 2 April (San José, Costa Rica)
   and 23 24 September (Bolivia)

# Transition to revised standards



- Transition plans to be reviewed by QSTF members
- SIM has approved deadlines to demonstrate conformance to the revised standards of Nov 2019 for ISO/IEC 17034 and Nov 2020 for ISO/IEC 17025

# SIM General Assembly 2019

## Santa Cruz, Bolivia 23 to 27 September





#### **Georgette Macdonald**

**NRC** Canada

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Gracias!
Obrigada!
Merci!
Thank you!