Measurement Canada
An Agency of Industry Canada

Mesures Canada
Un organisme d'Industrie Canada

Measurement Canada's role in Timber Measurement

Fair Measure For All

La mesure juste pour tous

TMS Meeting, Ferndale, WA - April 2013

Canada

Fair Measure For All

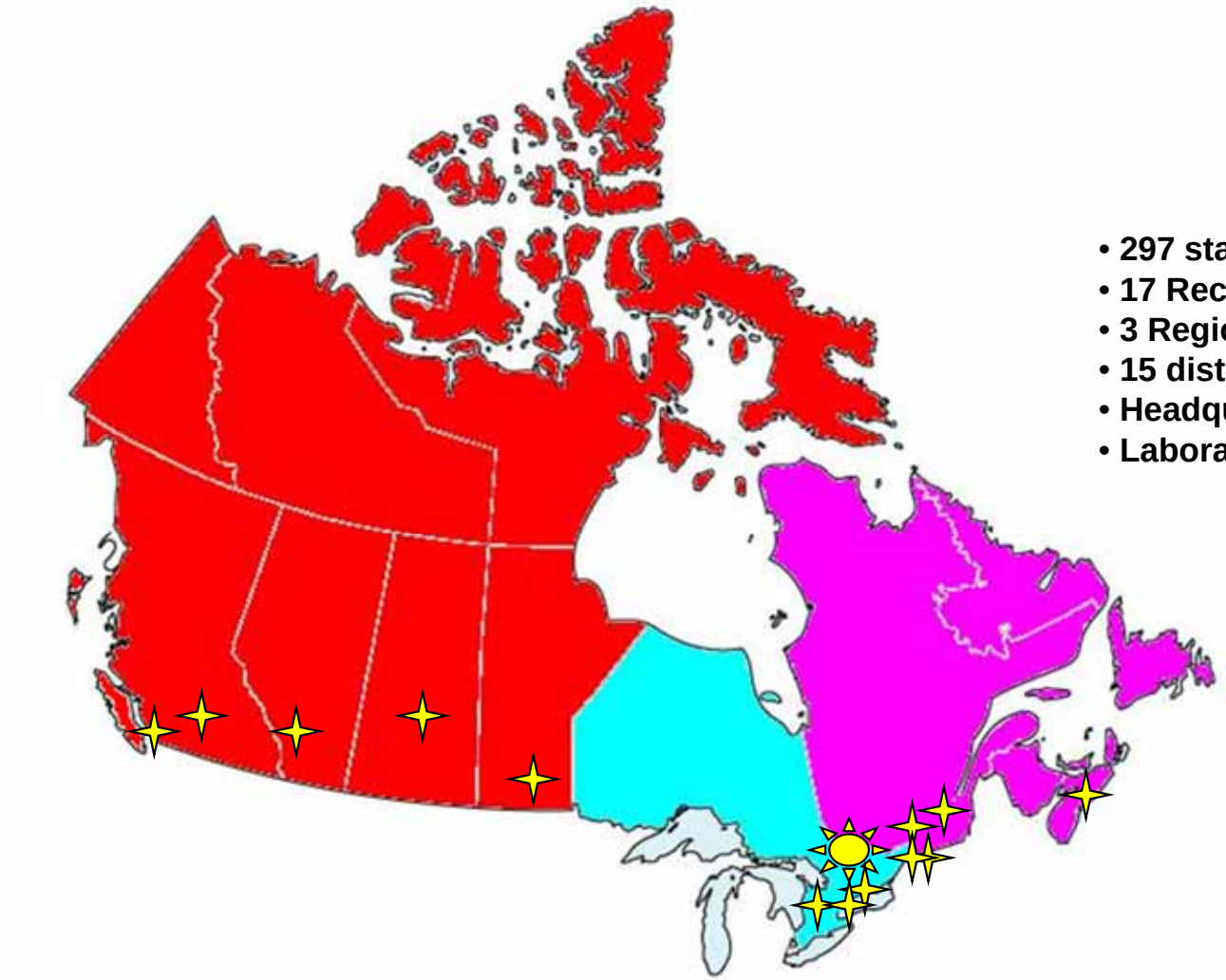
Measurement Canada is responsible for ensuring the integrity and accuracy of measurement in the Canadian marketplace. We:

- develop and administer the laws and requirements governing measurement,
- evaluate, approve and certify measuring devices, and
- investigate complaints of suspected inaccurate measurement.

Legislative Mandate

- Measurement Canada administers and enforces the laws governing trade measurement in Canada
  - *Weights and Measures Act* and
  - *Electricity and Gas Inspection Act*
- **Approve** weighing and measuring equipment (devices)
- Perform mandatory **Initial Inspections** of devices
- Certify Physical **Test Standards**
- Perform **Periodic Inspections** (TSR recommendations some mandatory)
- Investigate Inaccurate Measurement **Complaints**

Measurement Canada



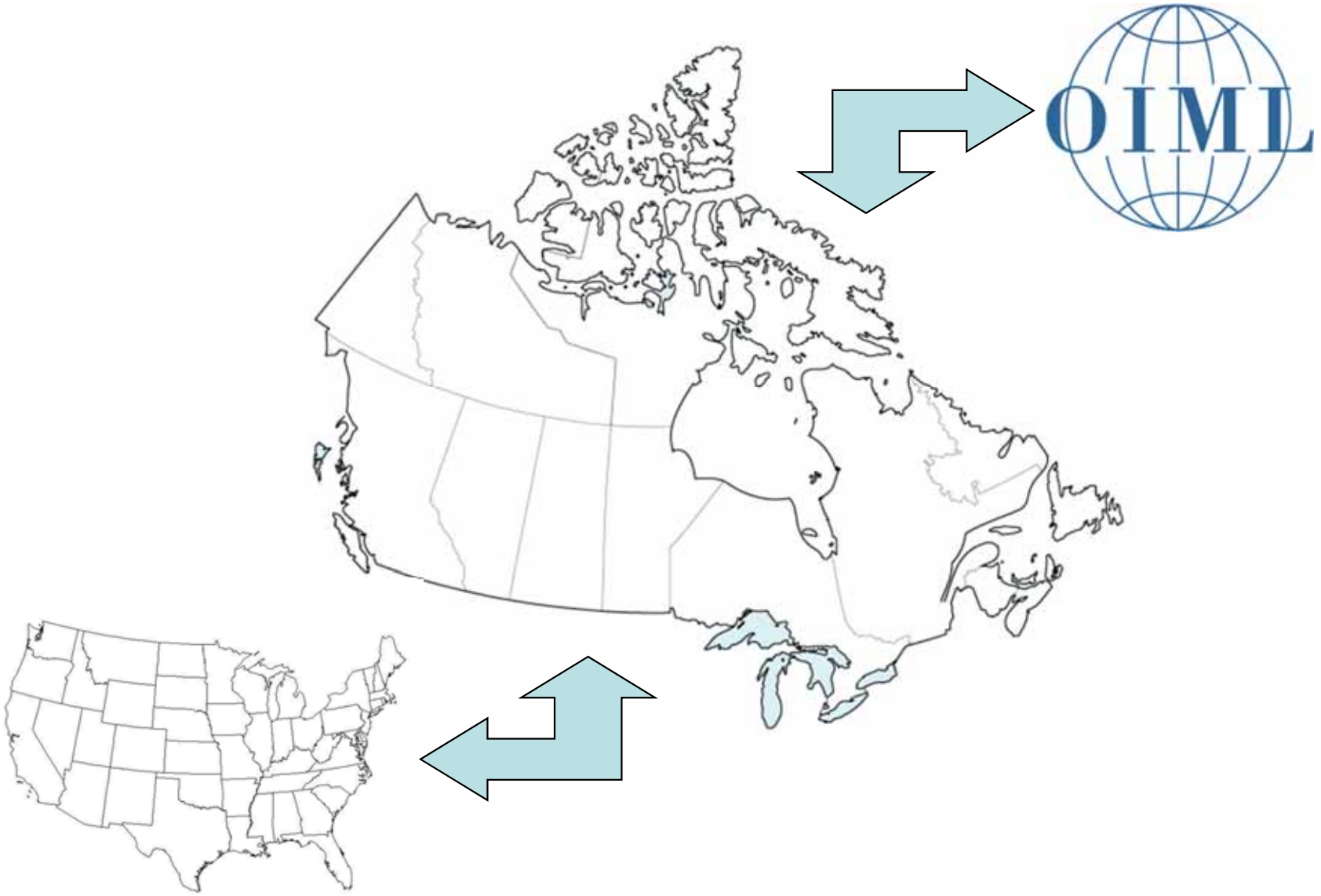
- 297 staff
- 17 Recognized Service Co
- 3 Regions
- 15 district offices
- Headquarters (Ottawa)
- Laboratory Services (Ottawa)

Trade Measurement

- Measurement Canada has sole jurisdiction with respect to the administration and enforcement of the statutes that regulate trade measurement.
- There is no overlap, duplication or shared responsibility with any other federal, provincial or municipal department or agency.

Inspections

Harmonization & MRA



MC in Forest Industry

- Primarily testing medium and heavy capacity scales
- Logs, pulp & paper, chips, hog fuel, etc.

MC in Forest Industry

- MC requirements do not:
  - address timber measurement methods
  - address log scanners specifically
- MC requirements do:
  - require all trade devices to be approved, and
  - initially inspected
    - some devices are exempt (e.g. linear measures)
  - require all trade devices to measure accurately
    - Accurate means within prescribed limits of error
    - Suitable for intended use

Timber Scanners

- 2007 Forest Sector TSR
  - About the same time, several manufacturers request approval of their scanners
  - MC has no requirements for scanners
  - 2009 legislative amendment to support TSR
  - MC Proposal to exempt timber scanners
- 2010 CSA Roundwood Measurement Committee
  - Requested MC address timber scanners
  - Approval / Need Requirements
  - Convened Timber Scanning Sub-committee

Timber Scanners

- Timber Scanner Subcommittee
  - Develop Discussion paper
  - Paper is available on MC Website (mc.ic.gc.ca)
- Measurement Canada
  - Prepare MC Legal Requirements
    - Specifications (T&C, regulations, etc.)
  - Develop Test Procedures
    - Identify suitable physical test standards (key issue)
    - Lab Procedures to Approve Scanners
    - Field Procedures to Inspect Scanners
  - Approve & Inspect Devices

Timelines

- Depends upon performance of the devices
  - Discussion paper published (Jan 2013)
  - Development of legal requirements (2013-2014)
  - Development of test procedures concurrent with legal requirements.
  - Acceptance of legal requirements (2014-20??)
  - Approval of devices AFTER legal requirements
  - Installation and Inspection AFTER Approval (2015-20??)

Timelines

- Depends upon performance of the devices
  - Timelines are estimated, many issues are out of direct control
  - A problem at any step could derail or delay the process
  - So far, preliminary results look promising


The End
Questions?

Physical Test Standards

Physical Test Standards - Traceability

"property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty"
International Vocabulary of Basic and General Terms in Metrology; VIM, 3rd edition, JCGM 200:2008

NMI – National Metrological Institute

NRC

National Research Council (Canada)

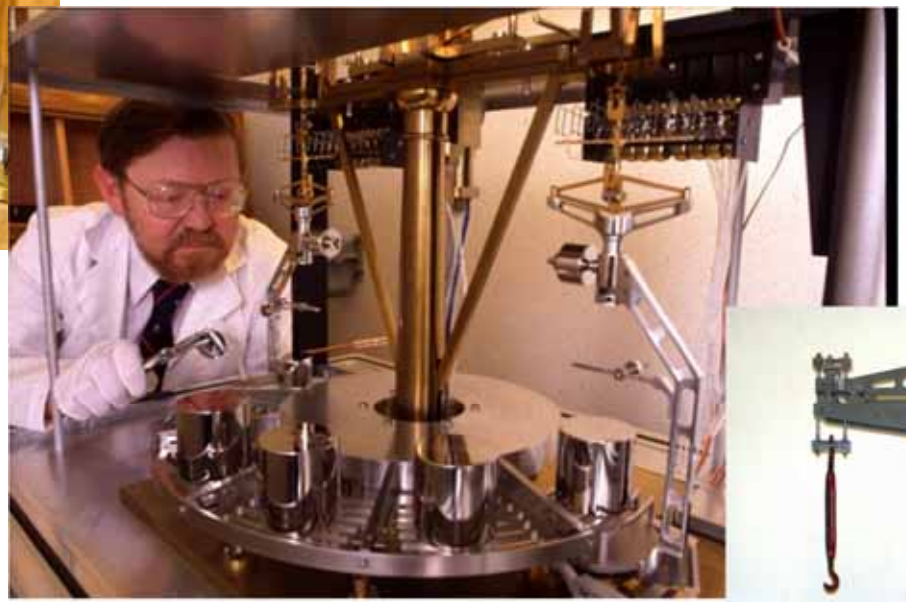
… PTB, NPL, LNE …

NIST

National Institute of Standards & Technology (USA)

Physical Test Standards - Mass

IPK Platinum Iridium Standard – Sévres, France
- K74 Canada
- K20 USA



Physical Test Standards - Length

"The metre is the length of the path travelled by light in vacuum during a time interval of 1⁄299,792,458 of a second."
17th CGPM (1983, Resolution 1, CR, 97)

Physical Test Standards - Time

"The second is the duration of 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom."
13th CGPM (1967/68, Resolution 1; CR, 103)
"This definition refers to a caesium atom at rest at a temperature of 0 K."
(Added by CIPM in 1997)


The End
Questions?