

International Engagement

Visiting Committee on Advanced Technology

Dr. Claire Saundry

Director, International and Academic Affairs

NIST International Goals

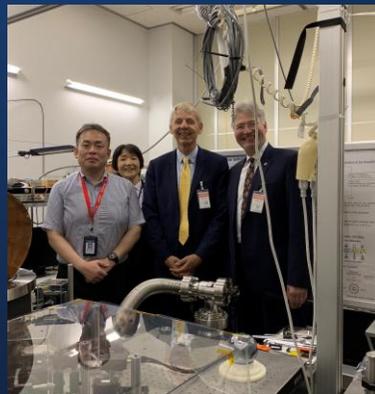
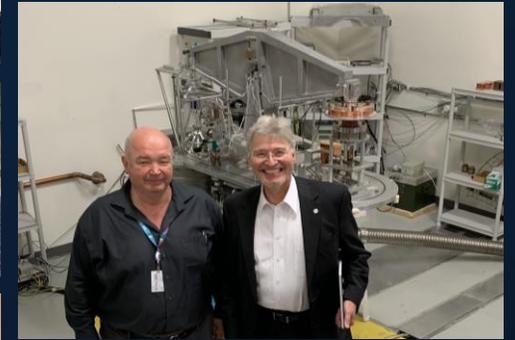
- Enhance measurement and standards infrastructure that enables global market access for U.S. products
- Provide global leadership in measurement science as a foundation for emerging technologies
- Promote harmonized standards and transparent regulatory regimes
- Support US Foreign Policy Objectives

Mechanisms of Engagement

- Global/Regional/Bilateral partnerships
 - Peer-to-peer cooperation
- NIST Associates/Guest Researchers
- International Agreements
- Information Exchange/Benchmarking
- Development Assistance/Workshops and Training
- Embassy Science Fellows



Global, Regional and Bilateral Activities





NIST Leadership in International Organizations

Standards and Trade



ISO and International Electrotechnical Commission (IEC):

- >100 staff, many in leadership roles (chair, chief delegate or convener)
- AI, nanotechnology, adv. manufacturing, resilience, biotechnology, forensics, cybersecurity

World Trade Organization (WTO):

- USA Inquiry Point and Notification Authority for the WTO TBT Agreement
- Notify U.S. (email alert service for WTO notifications)
- TBT meetings and reviews



U.S. Designating Authority for Telecom MRAs (15 countries)

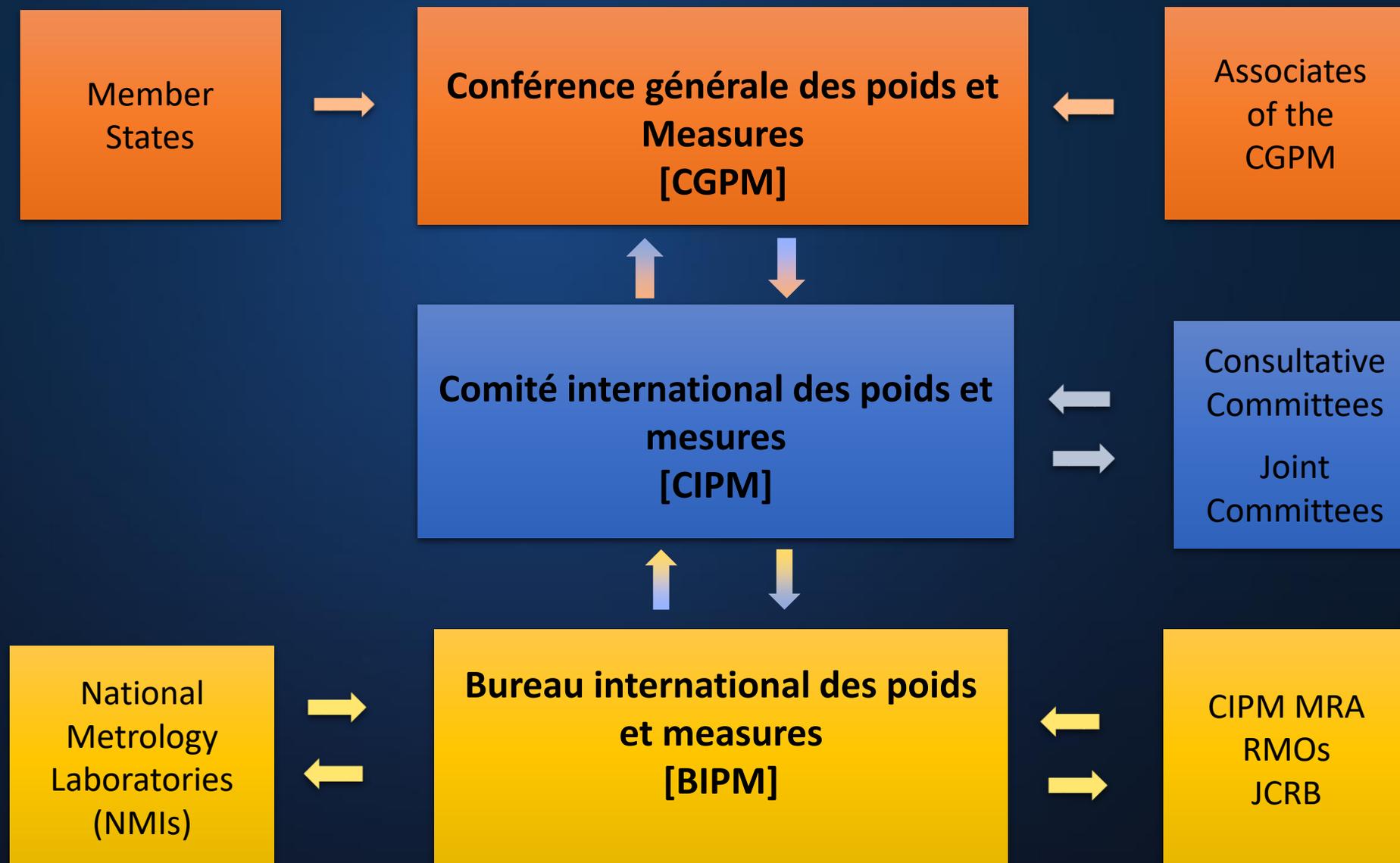
- Designates qualified U.S. testing and certification bodies

USTR: Support in trade negotiations (SCO and TPO)

NVLAP: Signatory to ILAC MRA, APLAC, IAAC



Global Metrology: The Metre Convention



20th Meeting of the NMI Directors (Paris, France)

- Panel on addressing and improving inclusivity and equity among NMI staff
 - Focused on NIST efforts, including our core values, the NIST Summer Institute, and our Steering Group for Equity in Career Advancement
- Governance Working Group Established
- Screening of “The Last Artifact”

Dr. Olthoff Introducing the
Last Artifact Film

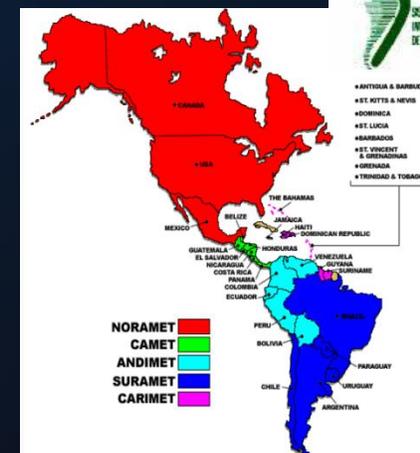
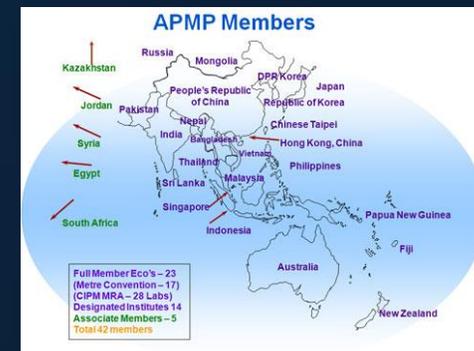


Dr. Copan with Takashi Usuda,
Director of the NMI-Japan

CIPM Mutual Recognition Arrangement (CIPM MRA)

Provides the technical basis for world-wide acceptance of measurement standards and calibration and measurement certificates of its signatories

- Paris 14 October 1999 (38 NMIs)
- October 2019: 106 from 61 Member States, 41 Associates and 4 IOs (+156 DIs)
 - In SIM – 9 Members, 7 Associates and 32 DIs



Role of the RMOs

- Exclusive organization through which NMIs obtain international recognition of their measurements capabilities
 - International recognition based on peer evaluation of quality systems and technical competence
- Demonstrate technical competence through comparisons and pilot studies
- Provide training and development opportunities to improve the capabilities of its members
- Collaborate with international and regional bodies on global measurement issues





NIST Activities in the Americas

Sistema Interamericano de Metrología
InterAmerican Accreditation Cooperation

Quality Council of the Americas

NIST- OAS Cybersecurity

- White paper
- Webinar
- Industry Roundtable

U.S. Brazil Commercial Dialogue

NIST-SIM-OAS Workshop: Strengthening
Air Quality Monitoring in Latin America

IADB Engagement

Foreign NIST Associates (FNAs) – FY2019

Total: 1450 Foreign National Associates (+110 over FY 2018) from 110 countries

Home Organization: US. Institutes 938
Foreign Institutes 531 (65 from NMIs)

- NIST Projects must benefit from FNA participation (expertise of FNA, contribution to NIST programs, etc)
- Rigorous review process includes:
 - Laboratory management
 - Export control officer
 - Senior bureau official
 - International affairs
 - DOC Office of Security



International Agreements

NIST Agreements

- Memoranda of Understanding
- Cooperative Agreements/Research Projects
- Multilateral Arrangement
- CIPM MRA, SIM, APMP, IAAC etc.
- Statements of Intent

USG Agreements

- US-Science and Technology Agreements
- Commercial Dialogues
- Strategic Economic Dialogues
- US-Israel Binational Industrial Research and Development Foundation (BIRD)
- India S&T Endowment Board (STEB)

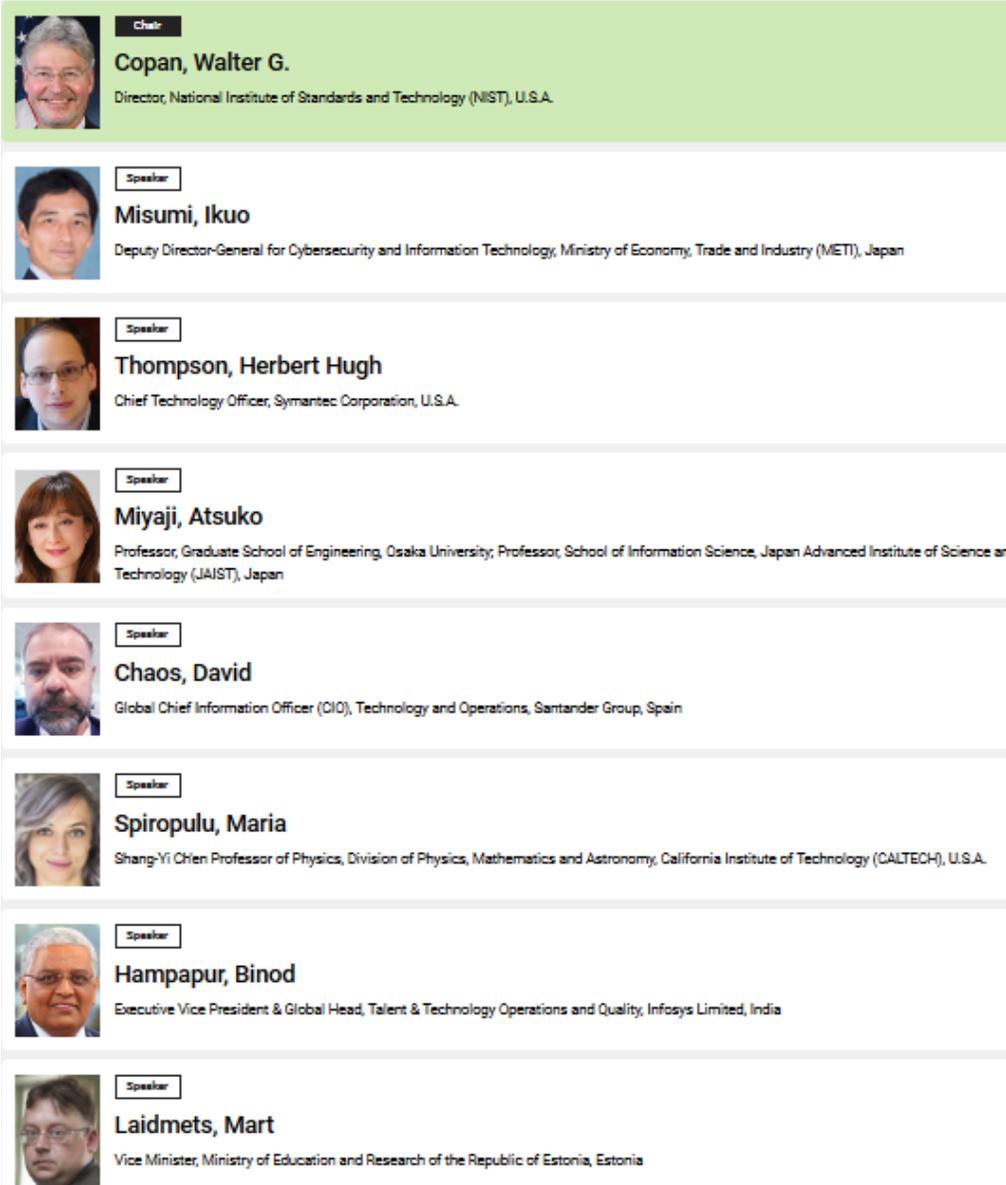




Information Exchange/Benchmarking

Science and Technology in Society Forum (Kyoto, Japan)

- International science, technology and policy leaders, convened by Japan's prime minister Shinzo Abe
- Chaired a panel on Cybersecurity and Connected Society
 - Eight leaders discussing the opportunities and challenges of Information and Communication Technologies
- Japan has fully adopted the NIST Cybersecurity Framework



Chair
Copan, Walter G.
Director, National Institute of Standards and Technology (NIST), U.S.A.

Speaker
Misumi, Ikuo
Deputy Director-General for Cybersecurity and Information Technology, Ministry of Economy, Trade and Industry (METI), Japan

Speaker
Thompson, Herbert Hugh
Chief Technology Officer, Symantec Corporation, U.S.A.

Speaker
Miyaji, Atsuko
Professor, Graduate School of Engineering, Osaka University; Professor, School of Information Science, Japan Advanced Institute of Science and Technology (JAIST), Japan

Speaker
Chaos, David
Global Chief Information Officer (CIO), Technology and Operations, Santander Group, Spain

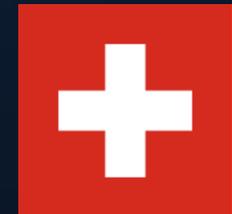
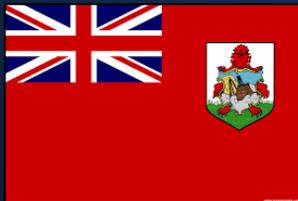
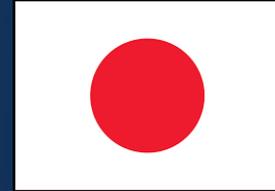
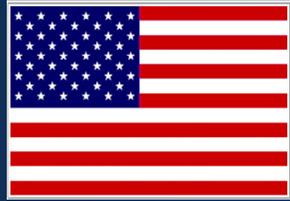
Speaker
Spiropulu, Maria
Shang-Yi Chen Professor of Physics, Division of Physics, Mathematics and Astronomy, California Institute of Technology (CALTECH), U.S.A.

Speaker
Hampapur, Binod
Executive Vice President & Global Head, Talent & Technology Operations and Quality, Infosys Limited, India

Speaker
Laidmets, Mart
Vice Minister, Ministry of Education and Research of the Republic of Estonia, Estonia

NIST Cybersecurity Framework: International Use

Translations, Adaptations, and Other References World-Wide



Baldrige Program: Founding Member, Global Excellence Council

Created in 2000

Members include the Excellence Programs in: Australia ● Brazil ● China ● Dubai ● Europe ● Iberia-Latin America ● India ● Japan ● Malaysia ● Mexico ● Singapore ● United States

Purpose & Mission

- Increase visibility & impact of business excellence worldwide
- Improve the effectiveness of excellence programs

Activities

- Benchmark excellence models & award processes
- Share best practices
- Meet annually in a member's home country



Benchmarking - ADIIS

Office of Advanced Manufacturing

Benchmarking/training visits by

delegations & individuals: Australia •
Brazil • Canada • China • France •
Germany • Italy • Korea • Singapore •
United Kingdom

Countries OAM has studied
benchmarked: China • Germany •
United Kingdom

Baldrige Excellence Framework

Benchmarking/training visits by
delegations & individuals:

Brunei • Canada • Curaçao • Ghana •
Indonesia • Japan • Kuwait • Mexico
• Pakistan • Singapore • Saudi Arabia

Licensed/used/adapted by organizations &
excellence programs:

Australia • Brazil • China • El Salvador •
Fiji • India • Indonesia • Japan • Malaysia
• New Zealand • Peru • Philippines • Sri
Lanka • Suriname • Sweden • Thailand •
Uruguay • Vietnam

MEP: Export Related Activities



MEP
**National
Network™**



INTERNATIONAL
TRADE
ADMINISTRATION



MEP member of Trade Promotion
Coordinating Committee Small
Business Working Group



Participated in Trade Finance
Advisory Council (TFAC) Meeting



Foreign Delegations and Collaborative
Exchanges with the OECD

ExporTech

Developed by NIST MEP
Offered to SMMs by 37
MEP Centers



Since 2006-

- 227 ExporTech sessions
- 1,160 clients have completed the program



\$500,000 - \$700,000

Average sales
increase/retention



\$91,000

Average cost and
investment savings



\$500 MILLION

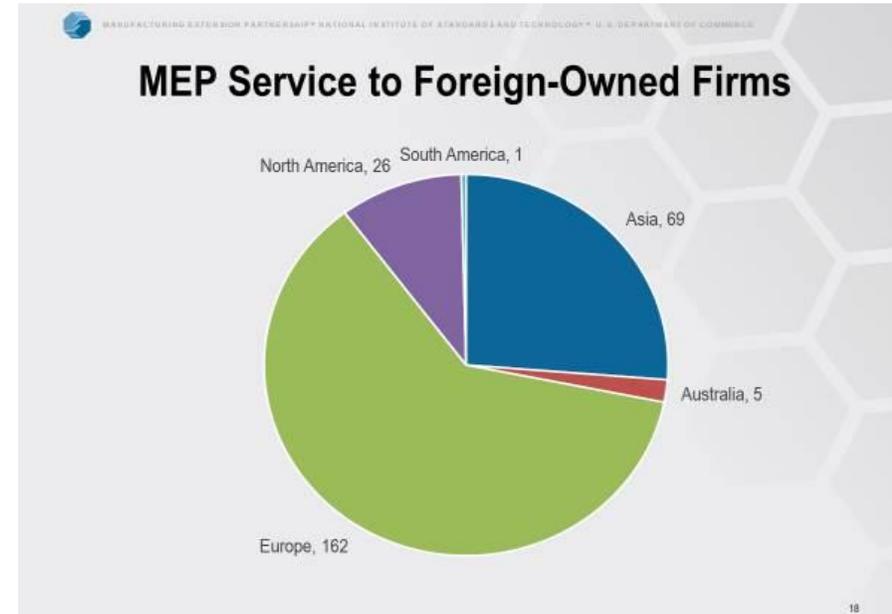
Total program sales
(new/retained) to date

DOC's SelectUSA initiative and the MEP are working towards:

- Identifying best practices in client management between MEP Centers and ITA's U.S. Export Assistance Centers (USEACs).
- In accordance with ReSelectUSA project plan, contributing to the development of a scalable training program for USEACs and Regional SelectUSA Champions that includes outreach to U.S. manufacturers via the NIST MEP National Network.
- Jointly developing reshoring/expansion case studies from MEP client companies



A subset of the companies that MEP serves are owned by foreign entities. In this capacity MEP assists DOC's domestic care program for Foreign Direct Investments.

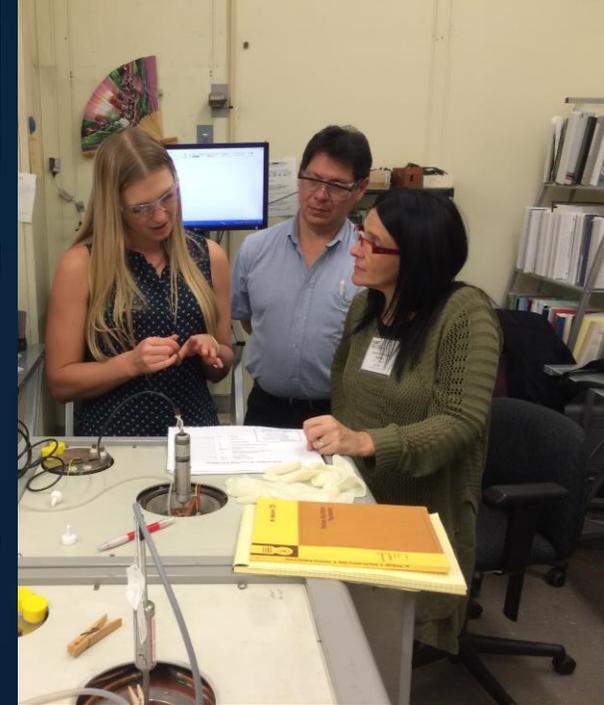
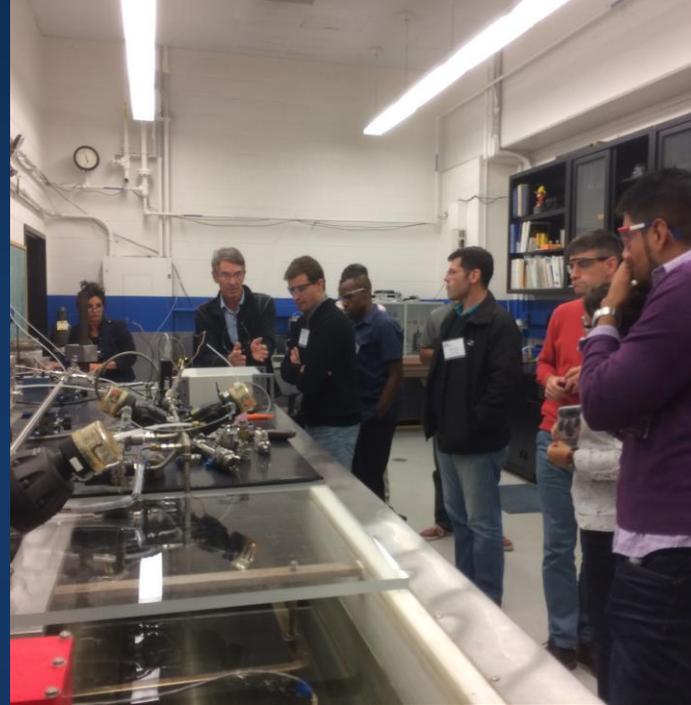


Development Assistance and Training



NIST-RMO Engagement Opportunity (2019-2020)

- Guest Researcher Exchanges
- SRM acquisitions
- Calibrations
- Pilot Studies
- Workshops/training



NEW Grant Funding

NIST awarded funds to NCSLI and BIPM to support RMO training:

- *Optimizing the CIPM MRA – KCDB 2.0*
- *NCSL International – Technical Exchange and Annual Workshop & Symposium*



TPO: International Activities



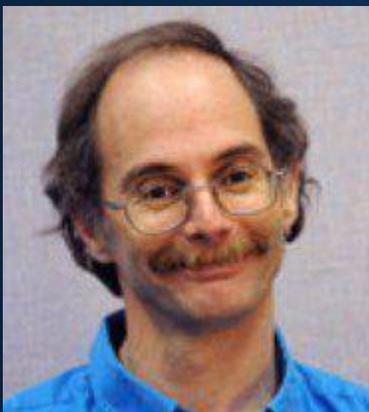
- Support USTR & USPTO on trade matters
- Work with CLDP (Iraq and Armenia)

- Educational Tech Transfer presentations
- Study global S&T trends and benchmarks

- Participate in Licensing Executives Society Standards committee for development of international standards on Innovation Management (ISO/TC 279)

- Provide guidance on Bayh-Dole implementation

Embassy Science Fellowships



Alan Migdall
Artificial Intelligence
Toronto, Canada



Amy Mahn
Cybersecurity
Vienna, Austria



Hae-Jeong Lee
STEM Outreach
Seoul, Korea



Regina Easley
Sargassum on the local
economy
Bridgetown, Barbados



Stacy Schurr
Ocean Science
Conference
Koror, Palau

Summary

- International activities must support the NIST mission, international engagement strategy, and provide a tangible benefit to NIST and the Department of Commerce
- The diversity of international activities reflects NIST leadership in measurement and standards and its commitment to mutually beneficial engagement to support the global measurement and standards infrastructure
- International engagement is primarily pursued through the NIST laboratories and Standards Coordination Office
- With few exceptions, NIST extramural programs (MEP, Manufacturing USA and BPEP) engage primarily in information exchange and benchmarking

Questions?