

BIPM Workshop on
***Accelerating the Adoption of Quantum Technologies
through Measurements and Standards***

BIPM – March 21-22, 2024

AGENDA

Day 1: Opportunities & Challenges

- 9:00 Welcome of participants, registration
- 9:30 Welcoming remarks
- NMI-Q – Tim Prior
 - BIPM – Martin Milton, Director
 - CIPM – JT Janssen
- 10:00 Keynote: the emerging quantum economy: the promise & the barriers – Sir Peter Knight
- 10:45 Framing the workshop: motivation and goals – Barbara Goldstein, NMI-Q
- 11:15 Break
- 11:45 Panel: Building a quantum economy – what will it take, and what are the challenges?
Moderator: Nicolas Spethmann, PTB
Panellists to include:
- Q-STAR – Taro Shimada (on line)
 - UK Quantum – Jonathan Legh-Smith
 - QuIC – Thierry Botter
 - QED-C – Celia Merzbacher (on line)
 - Quantum Industry Canada – Lisa Lambert
- 12:45 Lunch
- 13:45 Break-out 1: In what way is your organization (or economy) supporting the emerging quantum economy?
Moderator: Kevin Thomson, NRC
- 14:30 Report out
- 14:45 Panel: International quantum standardization
Moderator: Tim Prior, NPL
Panellists to include:
- Barbara Goldstein, NIST
 - John Devaney, NPL
 - Thomas Gerster, PTB
 - Kazutomo Hasegawa, Fujitsu
- 15:45 Break
- 16:15 Panel: The role of the metrology community in advancing emerging technologies
Talk: Alexander Tzalenchuk – The expanding role of NMIs in the quantum era
Moderator: JT Janssen, CIPM
Panellists to include:
- Takashi Usuda – NMIJ
 - Victoria Coleman – NMIA
 - Jim Kushmerick – NIST
 - Georgette Macdonald – NRC
 - Cornelia Denz – PTB
- 17:30 Day 1 wrap-up, Adjourn – Jan Herrmann, NMI-Q

Reception at the BIPM immediately following meeting – sponsored by NPL

Day 2: Solutions

- 8:30 Arrival and Coffee
- 8:45 Day 1 recap, framing Day 2 – Nobu Kaneko, NMI-Q
- 9:00 Presentations: NMI Collaborations in Quantum
Moderator: Nobu Kaneko, NMIJ
Panellists to include:
- EMN-Q, Qu-Test – Ivo Degiovanni
 - SQMS, Metrology gaps for superconducting quantum devices – Florent Lecocq
 - LNE, Metrology gaps for quantum - benchmarking – Felicien Schopfer
 - Quantum photonics - Angela Gamouras (NRC) and John Lehman (NIST)
- 10:00 Survey results – Nicolas Spethmann, NMI-Q
- 10:15 Break (with group photo)
- 10:45 Break-out 2: What should NMIs/DIs do together?
Moderator: Davide Calonico, INRIM
- What technologies and applications can we advance through cross-NMI collaboration?
 - What activities and outputs should we produce?
 - How can outputs be used?
- 11:45 Report out
- 12:00 Presentation – Examples of frameworks for NMI collaboration – Jan Herrmann, NMI-Q
- 12:15 Lunch
- 13:15 Break-out 3: How can we work together?
Moderator: Jan Herrmann, NMIA
- How do we organize ourselves, what constrains us from collaborating?
 - How do we engage industry?
 - Which other organizations do we need to include?
 - How do we share our outputs?
 - What is the role of CIPM/BIPM?
- 14:00 Report out
- 14:30 Panel: Workshop wrap-up – Main take-aways and suggestions for next steps
Moderator: Nicolas Spethmann, NMI-Q
- 14:45 Closing remarks: Tim Prior and Barbara Goldstein
- 15:00 Adjourn: Martin Milton