

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

BIPM Headquarters (Sèvres, France) – March 21-22, 2024

Day 1: Opportunities & Challenges

09:00 Welcoming of participants - Registration

09:30 Welcoming remarks

- Organizing Committee (NMI-Q)
- BIPM
- CIPM

09:55 Pre-keynote: Framing the workshop – motivation and goals

10:15 Keynote: “The emerging quantum economy: the promise and the challenges”

11:00 Break

11:30 Building a quantum economy – what will it take, and what are the challenges?

Leaders from various quantum consortia will provide an industry perspective on what is needed to grow a vibrant international quantum economy.

13:00 Lunch

14:00 Break-out groups – In what ways are our organizations supporting the emerging quantum economy?

14:45 International quantum standardization

A panel of experts will discuss such topics as:

- *The standards landscape*
- *Standardization readiness – when is it time?*
- *How do best measurement practices inform the standards process?*
- *How do standards fuel technology development?*

16:00 Break

16:30 The role of the metrology community in advancing quantum technology

Leaders from several National Metrology Institutes will discuss how they are supporting their nation’s strategic quantum priorities, and how they are addressing industry’s needs for new quantum-relevant measurements.

17:45 Day 1 wrap-up, adjourn

Reception at the BIPM immediately following meeting

Day 2: Solutions

09:00 Keynote presentation

09:30 Day 1 recap, framing Day 2

09:40 NMI Collaborations in Quantum

Experts will detail a number of cross-NMI collaborations that are advancing commercially-relevant quantum measurements.

10:40 Break

11:00 Break-out 1 – What should we do together?

Information consolidated from the pre-workshop questionnaire will be used to frame a discussion about which quantum technologies and applications we can advance through cross-NMI collaboration, and which other organizations we need to partner with.

12:00 Report out

12:15 Lunch

13:15 Break-out 2 – How should we work together?

Potential options for structuring an ongoing NMI-Q activity will be presented, followed by a discussion on issues such as:

- *What are industry-relevant outputs and how do we share them?*
- *How do we organize ourselves, what constrains us?*
- *How do we engage industry?*
- *In what ways CIPM and BIPM can contribute?*

14:15 Report out

14:30 Wrap-up panel

Invited representatives from various participating NMIs will share their main take-aways from the workshop, and suggestions for next steps.

14:50 NMI-Q wrap-up

15:00 Adjourn