

EU-Japan bilateral meeting on Quantum Science

Kyoto - December 17th 2019

AGENDA

Objective: Discuss on the possibilities for scientific cooperation between the European Union and Japan.

12:00 – 12:30: Introduction by EU and Japan officials

(Lunch boxes)

Presentation on quantum technology policies in Japan and EU, and global bilateral meeting discussion framework and objectives *(each presenting 10' + 5' discussion)*.

12:00 - 12:15 **Atsushi Oku** - MEXT

12:15 - 12:30 **Gustav Kalbe** - European Commission

12:30 – 14:00: Scientific presentations

Animated by the EU-Japan scientific experts of each topics and acting as co-rapporteurs

Co-rapporteurs will be asked to deliver a report for their pillar at the end of the meeting.

The discussion will be based on the presentations and exchanges of the previous days (Dec. 16th and 17th) and will be triggered by a short common presentation by the co-rapporteurs about their common proposa/ for a vision for the EU-Japan collaboration on each QT pillar (see guidelines at the end of this document). In addition to agreeing on this "big picture" the goal is to identify possible topics and complementary skills and other arguments justifying the EU-Japan collaboration.

A common preparation between EU-Japan scientists will be necessary before the meeting date.

12:30 - 13:00: Quantum Computing and Simulation

Immanuel Bloch
MP Institut- Quantenoptik
EU co-rapporteur

Yasunobu Nakamura
The University of Tokyo
Japan co-rapporteur

13:00 - 13:30: Quantum Network & Communication

David Elkouss Coronas
QuTech
EU co-rapporteur

Masahide Sasaki
NICT
Japan co-rapporteur

13:30 - 14:00: Quantum Sensing and Metrology

Thierry Debuisschert
Thales
EU co-rapporteur

Shigeki Takeuchi
Kyoto University
Japan co-rapporteur

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14 :00 – 14 :30 : General discussion including basic science

Tommaso Calarco Forschungszentrum Jülich	Kenji Ohmori Institute for Molecular Science, National Institutes of Natural Sciences
EU Co-chair	Japan Co-chair

Discussion on the basic science based on the pillar needs and on the fundamental and theoretical aspects.

General wrap-up based on the pillar discussion.

This discussion will lead to a one-page report on the vision and proposed topics of collaboration in basic science and theory and will also be the basis for another one-page executive summary.

14:40 – 15:00 Conclusion and next steps

General conclusion and next steps to be followed by both parties.

Gustav Kalbe European Commission	Atsushi Oku MEXT
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End of meeting

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List of EU participants:

- Gustav Kalbe (European Commission)
- Tommaso Calarco (Forschungszentrum Jülich)
- Philippe Chomaz (CEA Paris Saclay)
- Dijana Samson (CEA Paris Saclay)
- Immanuel Bloch (Max-Planck-Institut für Quantenoptik)
- Frank Wilhelm-Mauch (Universität des Saarlandes)*
- Thierry Debuisschert (Thales)
- David Elkouss Coronas (QuTech, Delft University of Technology)
- Paolo Villorosi (Padova University)

List of Japan participants:

- Atsushi Oku (MEXT)
- Hidetoshi Katori (The University of Tokyo)
- Shigeki Takeuchi (Kyoto UIniversity)
- Masahide Sasaki (NICT.)
- Yasunobu Nakamura (The University of Tokyo)
- Kenji Ohmori (Institute for Molecular Science)
- Kohei Itoh (Keio University) in part*
- Katsuhiro Kitagawa (Osaka University), in part*
- Mutsuko Hatano (Tokyo Institu of Technllogy) in part*
- Yasuhiko Arakawa (University of Tokyo), in part*
- Franco Nori (Chief Scientist Riken laboratories)

*Some of Japanese participants need to attend the topical workshops starting 2pm.

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Guidelines for the EU and Japan scientists leading the discussion on each QT pillar

These guidelines are for the European and the Japanese Scientists presenting talks during the ISQT symposium on December 16th and 17th and leading the discussions during the bilateral meeting on December 17th:

Guideline for the scientific presentation at the ISQT Symposium on Dec. 16– 17, 2019:

As the ISQT is a trilateral EU-US-Jap symposium, the EU and Japanese researchers are asked to give a general overview of the state of the art in their respective regions and not to focus on bilateral cooperation opportunities which will be the subject of the Bilateral EU – Japan meeting on Dec. 17th.

Guideline for the scientific discussions at the bilateral EU - Japan meeting on Dec. 17th 2019:

The EU and Japanese scientists should prepare in advance a common presentation per pillar, proposing a global vision and seeking relevant topics of collaboration and underlining EU-Japan complementarities for a win-win situation.

Taking into account the discussion during the entire bilateral meeting, the EU and Japan scientists will write a one-page report for each pillar stating the common vision and the possible topics of collaboration between the EU and Japan. The reports will also give arguments about the expected benefit of the bilateral collaboration on the proposed topics.

Bilateral meeting instruction for each pillar presentation: 12' presentation + 12' discussion

- *Short common EU-Japan presentation (approximately 12 minutes in total). Objectives: propose and present topics of collaboration + explain the reasons of complementarity + the needs identified to implement such collaborations.*
- *Followed by 12 minutes of discussion animated by the co-rapporteurs*
- *Output: a one-page common EU-Japan report to be delivered at the end of the workshop.*

Meeting Venue:

Kyoto Brighton Hotel

Nakadachiuri, Shinmachi-Dori, Kamigyo-ku, Kyoto

602-8071, Japan