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Quantum Technologies Standardization

October 2025

Workshop

QuTechSpace



Funded by
the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the project "Quantum technology components for space communication" (QuTechSpace, grant agreement No 101135225)

Current European projects on standardization of quantum technology

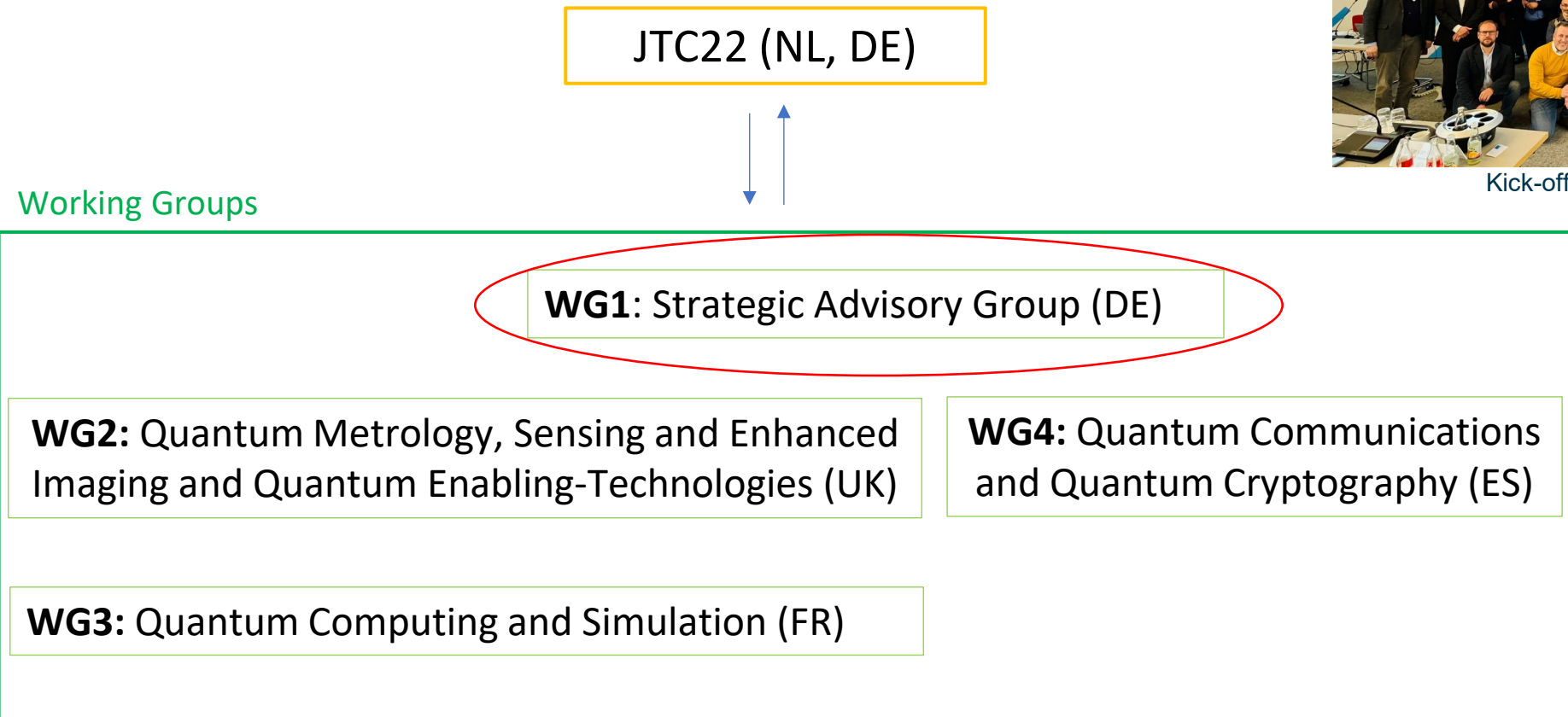
- WG 1 Strategic Advisory Group -

Nicolas Spethmann

*Co-Chair of CEN/CLC JTC22 Quantum Technologies
Convenor CEN/CLC JTC22 WG1*

*Physikalisch-Technische Bundesanstalt,
National Metrology Institute Germany*

Structure of JTC 22



Kick-off in Berlin 03/2023

WG1: Strategic Advisory Group (DE)

“International cooperation and liaisons”

“Communication to stakeholders”

“Dialogue with policy maker”

“Business plan of JTC 22”

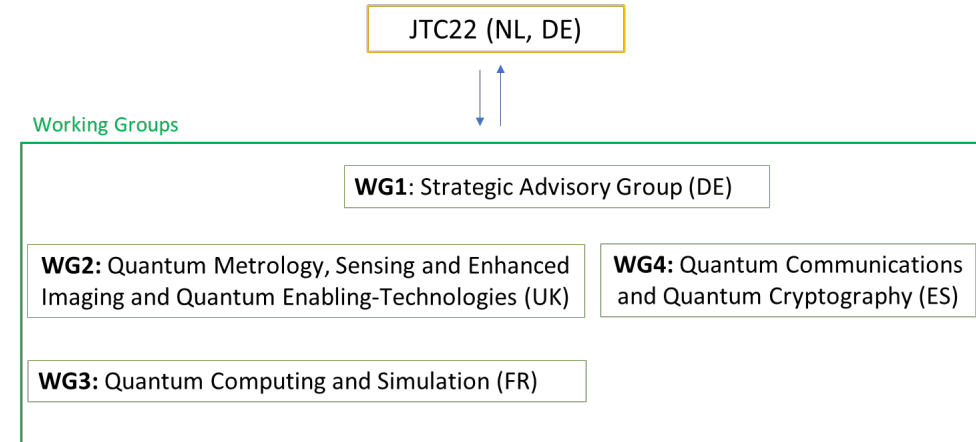
“Standardization Roadmap V2.0”

1

“Ensuring a coherent framework”

“Coordination & Alignment with IEC/ISO JTC3”

2



“Cross-sectional topics within JTC 22”

CEN-CENELEC Focus Group Quantum Technologies:

- Identify standardization needs in Quantum Technologies
- **June 2020 – March 2023**, 32 online & offline meetings
- More than 200 European experts with > 360 contributions



Roadmap:

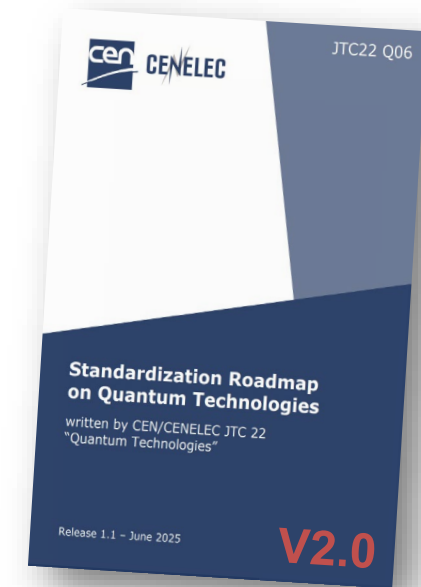
- Paved the way for JTC22
- Published 3/2023, updated V1.1 now in 6/2025
- Worldwide recognition of Roadmap V1.0
- Now part of WG1

FGQT in Delft 2022



Why a Standardization Roadmap on QT **Version 2.0** ?

- Fast developments in technology & science on QT -> update needed
- Helps to co-ordinate QT standardization within Europe and on an international level with JTC3



New focus in **Version 2.0** :

- Briefer description of technologies, less general info on standardization and QT
- Timing: urgent / mid-term / long-term needs for standards?
- Involvement of main stakeholders from industry, open forums as new ways to address the relevant community



To participate, contact
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International:



IEC/ISO JTC 3

- est. **05/2024**
- chair (KR)
- secretary (UK)

European:



National:

National Standardization Body
(e.g. UNE, DIN or BSI ...)



JTC22 WG 1: Information & Coordination on JTC3

- Cooperation with JTC3 by Frankfurt Agreement
- Strategic decisions of work plan in JTC22
- Avoiding duplicate work and maintaining European interests

Thank you very much for your attention!