



Quantum Delta NL: Tackling Foreign Interference

Action Plan

April 2022

Summary:

Quantum Delta NL has formulated an action plan “Tackling Foreign Interference”. There are a number ongoing efforts in this regard, all of which aim to provide guidelines on how to protect sensitive R&D knowledge while safeguarding international collaboration. This plan integrates various ongoing initiatives, including the Association of Universities in the Netherlands (VSNU), the Ministry for Education, Culture and Science (OCW), the Dutch Research Council (NWO) and the European Union. As these initiatives are all generic in their scope, Quantum Delta NL decided to translate these guidelines into a quantum-specific list of activities. This has been done in consultation with relevant stakeholders across the quantum R&D community. Quantum Delta NL will start implementing these guidelines, and is keen to engage in an open conversation on lessons learned with its partners in the Netherlands, in the EU and beyond.

1. Starting Points:

Quantum technology is still in its early stages. Many of the future milestones that are required for relevant innovations in this emerging field are driven by scientific breakthroughs. In order to stay ahead of international developments, we need a thriving ecosystem, which is attractive for international talent from across the globe. At the same time, the threat of foreign interference has to be taken seriously. On EU, national and university level, there is an ongoing debate about the best ways to safeguard knowledge security against unwanted interference. Even though this debate takes place in nearly all disciplines, the quantum community feels that it has a particular responsibility to look ahead: as applied quantum technology is considered a potential game changer for almost any sector or industry, how do we build an ecosystem that is able to guard itself against unwanted ‘leaking’ of relevant knowledge? As we press forward with quantum-related R&D efforts, we need to invest in the appropriate mechanisms that can help identify and mitigate potential risks of international cooperation – without compromising on its benefits.

2. QDNL Code of Conduct:

“Quantum innovation is an international endeavour. We need the brightest people to join forces and to improve each others’ work – whether they work in academia, start-ups or corporates. But when they meet, they must have a safe environment in which to work and thrive. We believe in the opportunities that stem from cooperation; yet we support the view that there are risks from foreign interference that need to be mitigated in order for this new technology to have a positive impact on society as a whole. For European quantum innovation, we need to strike a fine balance between too closed and too open. The Quantum Delta NL community is committed to making this balance work for everyone.”

3. Concrete steps by Quantum Delta NL:

In the coming months, we expect the European quantum community to intensify the discussion about guidelines for research activities in academia, research institutes and the (collaboration with the) private sector. Quantum Delta NL is committed to facilitating this conversation and is implementing a set of measures that are geared towards greater awareness, improved information exchange and (where applicable) stricter rules for international collaboration. This is not a one-size-fits-all approach. The quantum technology field is wide and complex, and it is growing fast. We need tailor-made approaches that can be applied to specific contexts.



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a. Engaging research leadership

- Develop a questionnaire about the (inter)national R&D developments in specific sub-fields. This will be done for all principal investigators (PI's) that have received a research grant from QDNL / NWO.
- Organise workshops for PIs and business developers regarding the following themes:
 - Procurement from non-EU countries
 - Existing reporting and support channels
 - Dual-use export control and sanctions regulations
 - Addressing potential misuse of research
 - Cyber security (awareness, hygiene and procurement)
 - Crown jewels and related mitigation measures
- Support national efforts in the creation of a national one-stop shop (loket).

b. Defining crown jewels

- Facilitate a joint effort with the various QDNL hubs to define which R&D efforts of the QDNL programme would benefit from additional measures (physical access to labs, cyber standards, screening procedures for partners, funding sources). This will be done based on close consultations with selected stakeholders from the QDNL academic community, with a particular emphasis on the work done by the Ministry of Economic Affairs and Climate Policy („risicovakgebieden“)
- Support efforts to define needs towards Brussels vis-à-vis possible changes in EU regulations
- Organise best practice exchange with EU partners

c. Supporting business developers

- Coordinate with the various TTO offices across the QDNL community
- Support QDNL's in-house “tech transfer team” (which includes all business developers) to:
 - Develop standard formulations for partnership agreements with non-EU partners
 - Develop red lines for collaboration based on existing best practice
 - Draft a checklist for due diligence

d. Investing in cyber security

- Develop a training module for PIs
- Add relevant cyber news to QDNL newsletter
- Support VSNU and university-level activities vis-a-vis improved cyber awareness and hygiene
- Organise lessons learned workshops in Brussels on cyber security in quantum / deep tech R&D