



Proposal for the creation of the Quantum Industry Consortium (QuIC)

Rationale

The European (EU) Quantum Technology (QT) Industry is a nascent industry which is expected to gain considerable weight in the next few years; more specifically it will: play a key role in Europe's goal to industrialize QTs; create an entirely new market; and, ultimately, create new jobs for European citizens. A central success factor for this to happen is that the EU QT Industry organizes appropriately, forming a Quantum Industry Consortium (QuIC) whose members represents private companies that have stakes/are genuinely interested in QT. Indeed, while industry has already an advising role in the QT Flagship initiative, both at the Governance (Strategic Advisory Board, Science and Engineering Board and Quantum Community Network) as well as the coordination level (Strategic Research Agenda Working Group and Innovation Working Group), the QuIC will be an interest group implemented by a private organization, which will assert and foster the common interests of the European QT Industry. As such, it will represent the European equivalent of the US Quantum Economic Development Consortium (QED-C).

Objectives

The Quantum Industry Consortium (QuIC) will be the voice of the Quantum Industry in Europe. Its mission is to represent and promote the common interests of the Europe-based quantum industry towards the European Institutions and stakeholders in order to ensure a sustainable business environment and foster its global competitiveness.

The objectives of the Quantum Industry Consortium are to:

1. Identifying the requirements both from the public and from the private sector side for a flourishing EU QT Industry and market, particularly in terms of supply chain, enabling components and/or technologies, use cases, performance, standards, workforce;
2. Facilitate the coordination between QT industries, as well as liaise with public QT stakeholders (government agencies, EU institutions and academia);
3. Advocate at the public institutions level for industry needs, in particular to steer QT investment priorities.

Tasks

The Quantum Industry Consortium is tasked to:

- Identify roadblocks in the supply chain/enabling technologies/infrastructures and propose to the relevant public and private decision makers specific measures to remove/overcome them;

- Identify, support and promote discussion (in collaboration with the CSA Innovation Working Group) about economically viable use cases of QTs and drive the attention of the public QT stakeholders towards them;
- Support the establishment and adoption of standards and legislation in the emerging QT industry, involving in their definition all relevant actors at the regional, national and European level and promoting the voice and perspective of European industry being brought up with relevance and authority at global level, including international standardisation bodies;
- Recommend sharing strategies for IP, technology forecasting (in collaboration with the QT Flagship current and future CSA) and quantum awareness (in collaboration with the quantum education CSA);
- Promote discussion along potential supply chain players on IP and market trends;
- Ensure industry access to large-scale testbed infrastructures for the testing of quantum and quantum-related technologies;
- Connects start-ups to venture capitalists/business angels to mitigate the challenges in getting seed capital as well as to ease their transformation into SMEs if they wish to;
- Determine the workforce needs for the development of the QT landscape in Europe, and propose changes to academic curricula (in collaboration with the quantum education CSA) to better address current and future industry requirements;
- Implement efficient coordination with the public QT stakeholders, by providing a forum in which the QT industry state of the art can be discussed openly and needed activities to advance it identified and deployed.

Next steps

In order to bootstrap the creation of the Quantum Industry Consortium, the following steps are deemed necessary:

- Map the landscape of groups/organizations where QT industry is involved (e.g., the QFLAG Innovation Working Group, the QCN Industry Working Group, and similar national groups); align QUIC actions to its mission and goals;
- Create an initial QuIC member list, establish contact and seek for commitment to participate through the signing of a suitable Letter of Support (LoS) to the initiative;
- Organize a one-day workshop with all the signatories of the LoS to shape the Consortium governance bodies and plan its strategy and initial activities.

Initial resources

To carry out the set-up activities foreseen in the previous section within a tight timeframe (one to two years, from starting to the fully functioning QuIC) a full-time Project Manager should be hired, possibly complemented with a part-time secretary and provided with the necessary budget for the abovementioned workshop.