

Call to accelerate Quantum Technologies across Europe

- Commissioner for the Digital Economy and Society, Gunther H. Oettinger, and Minister of Economic Affairs of the Kingdom of the Netherlands, Henk Kamp, today visited QuTech, a world-class institute building devices for Quantum Computers and Quantum Internet in Delft. The Commissioner and the Minister stated that action is needed to ensure Europe remains a world leader in Quantum Technology.
- As competition in the field is becoming more intense globally (e.g. US and Asian competitors are actively investing), we must ensure that Europe's innovators can translate scientific excellence into concrete applications and market results, thus offering Europe's industry the opportunity to excel in the global sphere.
- The European Union has increased R&D investment for Quantum Technologies in the Horizon 2020 Work Programme for 2016-2017, potentially more than doubling the amount available for research on this topic from €10 million to over €20 million. The Netherlands is investing €135 million over 10 years. Today, the EU needs strong leadership, to stay at the forefront of this technology, build on its scientific excellence and create a booming and competitive industry for future independence and prosperity.
- The Commissioner and the Minister welcomed the preparation of a so-called "Quantum Manifesto" describing a common European vision on how to maintain Europe's world leadership in Quantum Technologies. The Memorandum should be ready for endorsement in May 2016. Stakeholders from science & industry and Member States will be invited to contribute to this vision.
- This vision will be discussed and endorsed during a dedicated Conference in Amsterdam on May 17-18th 2016 during the Dutch EU Presidency. Invited speakers include Serge Haroche (Nobel prize in Physics 2012), John Martinis (Google), Mike Lazaridis (Waterloo) and VolkmarDenner (CEO of Bosch). The draft Manifesto will be written following

consultation with the science and industry communities, member states and the European Parliament in the first quarter of 2016.

Technical background

- For the past 15 years, the European Commission has supported research and innovation in quantum technologies in a number of ways; around €250 million of EU funds have been invested in projects in the field by Future and Emerging Technologies (FET) alone. The time has come to move further, helping research findings turn into successful market solutions. But to reach this goal, it is imperative to act together. And for this we need to understand what are the needs of all stakeholders involved, we need to reach a common understanding of what our goals should be, we need to build a common vision of how Europe could lead the world in Quantum Technologies.
- Technologies based on the laws of quantum mechanics will lead to a wave of new innovations that will radically solve many of today's global challenges. Applications include new ultra-precise sensors, secure communication and extremely powerful computers. Global investment is growing fast as science has reached a level of maturity needed for industrial exploitation.