

**Question for written answer E-002937/2024
to the Commission**

Rule 144

Lídia Pereira (PPE), Sebastião Bugalho (PPE), Paulo Cunha (PPE), Hélder Sousa Silva (PPE)

Subject: Driving decarbonisation: leveraging quantum computing for Europe's clean industrial future

In order to decarbonise growth, we need to grow decarbonisation. Quantum computing will reshape the economics of decarbonisation, advancing transformative innovation across cleantech applications and enabling a greenhouse gas reduction of up to 7 gigatonnes by 2035. The quantum market could be as large as EUR 78 billion by 2040. As pointed out by the Draghi report, today 'five of the top ten tech companies globally in terms of quantum investment are based in the US, four in China and none in the European Union'. Given Executive Vice-President of the Commission Stéphane Séjourné's task to ensure the industrial application of quantum computing is at the heart of our economy, how is the new Commission planning to harness quantum computing's potential in the Clean Industrial Deal considering:

1. a pan-European strategy for quantum applications in clean technologies, driven by public funding and supported by a comprehensive capacity-building plan for the quantum and clean tech industries;
2. the promotion of public-private partnerships in the form of centres of excellence to incentivise research and development (R&D) investment in quantum computing by the private sector;
3. the proactive involvement of European universities in the development of the skills and knowledge at the heart of a quantum economy for clean technologies.

Submitted: 13.12.2024