

# <HPC|QS>

## High Performance Computer – Quantum Simulator hybrid

### Towards a Pan-European Hybrid HPC/Quantum Infrastructure

HPCQS seeks to integrate and couple two quantum simulators, each capable of controlling more than 100 qubits, with two existing European Tier-0 supercomputers, and to deploy an open European federated hybrid HPC-QS infrastructure that will provide non-commercial cloud access to public and private European users.

With such powerful computers, new and better solutions for complex problems can be found, for example in the areas of simulating physics and chemistry systems, material development, personalised medicine, optimisation problems for logistics and transport, and quantum-enabled machine learning.





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