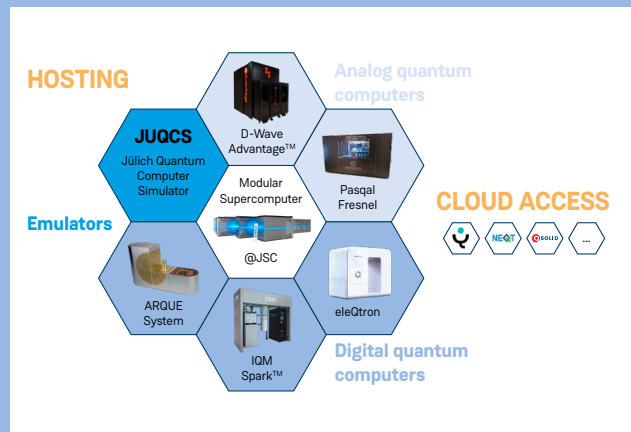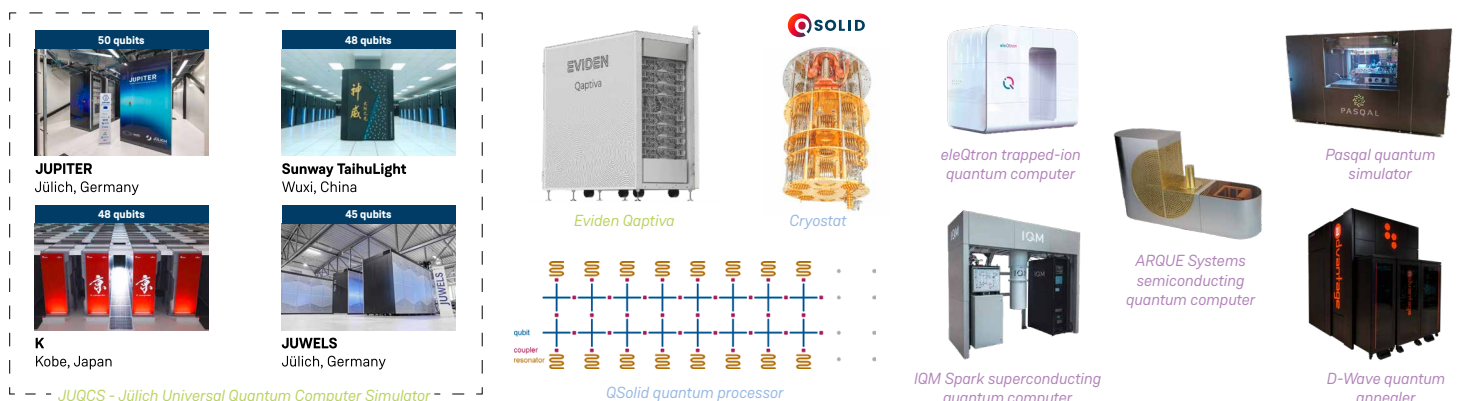# JUNIQ
JÜLICH UNIFIED INFRASTRUCTURE FOR QUANTUM COMPUTING

A European quantum computer user facility at the Jülich Supercomputing Centre:

- Unified portal for access to simulators and to quantum computing technologies on various stages of maturity

- Development of algorithms and prototype applications

- Services, training and user support

- Modular quantum-HPC hybrid computing

Access to simulators, prototypes and first production systems

JUPITER — 50 qubits
Jülich, Germany

Sunway TaihuLight — 48 qubits
Wuxi, China

K — 48 qubits
Kobe, Japan

JUWELS — 45 qubits
Jülich, Germany

JUQCS - Jülich Universal Quantum Computer Simulator

Eviden Qaptiva

Cryostat

QSolid quantum processor

eleQtron trapped-ion quantum computer

IQM Spark superconducting quantum computer

ARQUE Systems semiconducting quantum computer

Pasqal quantum simulator

D-Wave quantum annealer

Combining quantum and classical computers – Modular Supercomputing Architecture

The linking of conventional HPC systems with quantum computers enables hybrid simulations that open up new possibilities for demanding computing tasks in science and industry.

For practical quantum computing, the best of both computer technologies must be combined.

Contact: k.michielsen@fz-juelich.de | Website: go.fzj.de/juniq