



EuroHPC
User Days

Dublin Ireland
22→24
September 2026



EuroHPC
Joint Undertaking



An Roinn Breisnídeachais agus Ardoidenachais,
Taighde, Nuálaíochta agus Eolaíochta
Department of Further and Higher Education,
Research, Innovation and Science



ÉIRE2026.EU
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EuroHPC JU Access to the Quantum Infrastructure

Rene S. Chatwell
R&I Quantum

EuroHPC Quantum Infrastructure

- Technological sovereignty
- EU added value
- Supply chain security
- EU procurement rules
- First customer principle



- Quantum accelerated HPC
- Multi-modality strategy
- Hardware agnosticism
- **Ecosystem building**
- **End-user support**

Quantum Pilot Access

CALL STATUS: OPEN

EuroHPC JU Call for proposals for Quantum Access Pilot Mode

The Quantum Pilot Access mode is aiming to provide quick preliminary access to EuroHPC JU Quantum infrastructure for testing and development purposes.



EuroHPC Quantum Computers



10
Quantum
Computers

EQUIPPING EUROPE FOR THE QUANTUM LEAP

The European Union is building the world's first public network of cutting-edge quantum computers.



650
qubits
in total
for European
users and science



120
million EUR of EU
& national funds
invested in quantum
research & innovation



6
different quantum
technologies
are integrated in EuroHPC
quantum computers



29
partners from 17
European countries
contributing
to the initiative



EuroHPC quantum computers are developed by European companies, and will help scientists to break unsolvable problems, boosting EU competitiveness, strategic autonomy and sustainable prosperity.





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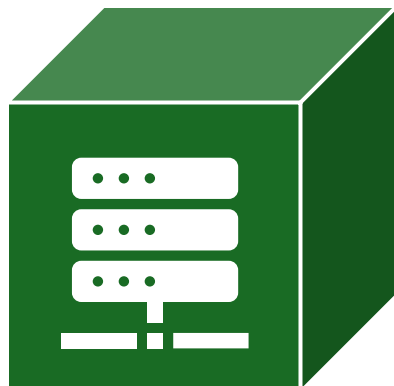
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EuroHPC JU Access to the Quantum Infrastructure

Klara Meštrović
Peer-Review Sector

EuroHPC JU Access Calls

HPC APPLICATIONS



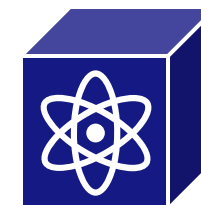
**Preparatory and
production access
calls types**

AI APPLICATIONS



**Scientific and industry
call types**

QUANTUM APPLICATIONS



Pilot stage



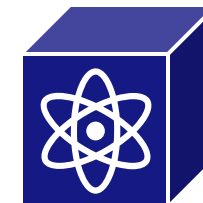
System	Site (Country)	Technology/modality	Min-Max request (QPU hours)
Ruby	GENCI/CEA (FR)	Analogue simulator/Neutral atoms	10-25
Euro-Q-Exa	LRZ (DE)	Digital/Superconducting	1-10
Lucy	GENCI/CEA (FR)	Digital/Photonic	10-25
PIAST-Q	PCSS (PL)	Digital/Trapped Ions	10-25
VLQ	IT4I (CZ)	Digital/Superconducting	1-10

Quantum Access **Pilot**

For collecting performance data, code and algorithm development, development of workflows and QC trainings

Access duration 3-6 months

Allocation process duration – 2 weeks after the cut-off date (monthly cut-off dates)



• Submission of an **online form**

Evaluations based on **technical feasibility**

• **Final results** communication per system applied to

• **Emulator benchmark** assignment for proposals to obtain feasibility proof

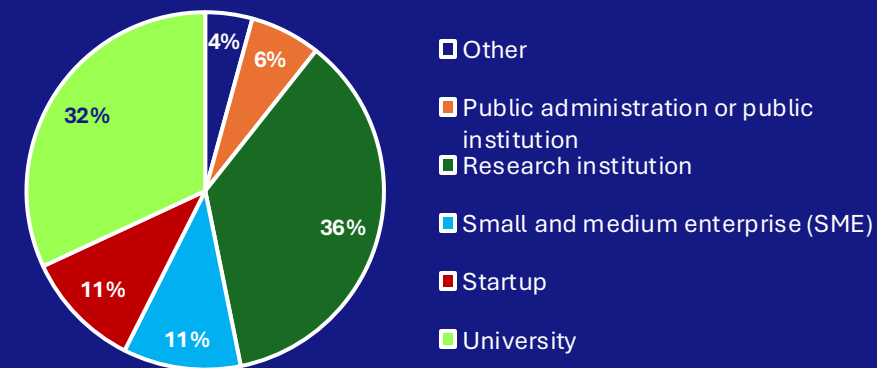
First results of the Quantum Access Pilot call

Call opened since **27 June 2026** – 2 cut-off dates passed so far

Received applications – **56**

Awarded applications – **47 (84%)**

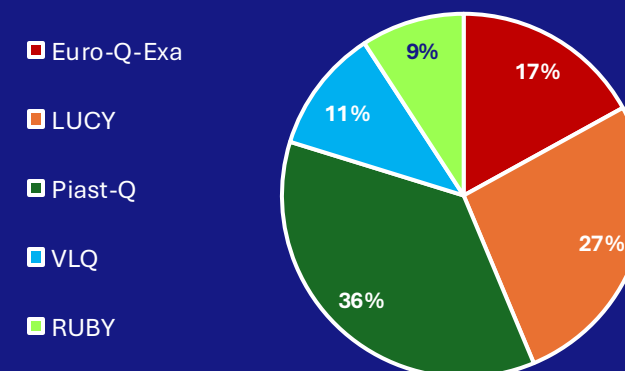
PI organization type - all cut-offs



AWARDED RESOURCES (QPU HOURS) – June-September 2026

YEAR/CUT-OFF	TOTAL	Euro-Q-Exa	LUCY	PIAST-Q	VLQ	RUBY
01/08/2026	807	144	235	320	108	-
01/09/2026	335	50	70	92	18	105
TOTAL	1,142	194	305	412	126	105

Awarded QPU hours across systems

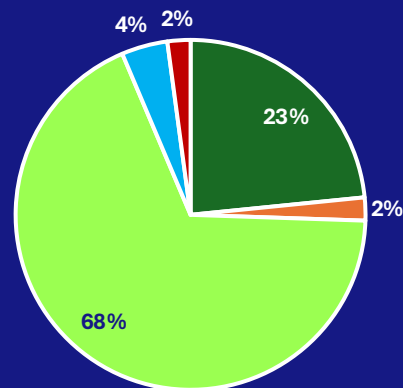


First results of the Quantum Access Pilot call

45% - NO HLST
55% - HLST REQUEST

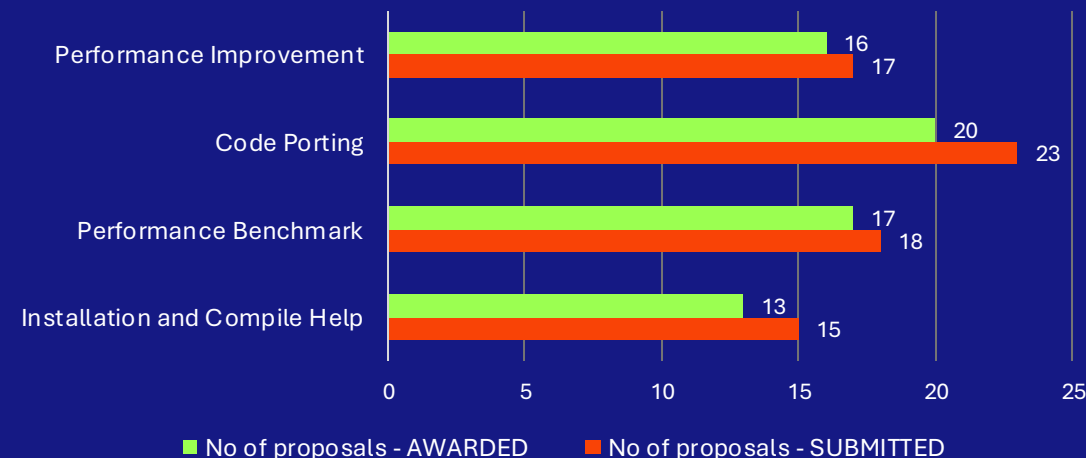
Research fields distribution (awarded proposals) -
all cut-offs

- Chemical Sciences and Materials, Solid State Physics
- Biochemistry, Bioinformatics, Life Sciences, Physiology and Medicine
- Engineering, Mathematics and Computer Sciences
- Socio-Economic Sciences and Humanities: Economics, Finance and Management, Linguistics, Cognition and Culture
- Computational Physics: Universe Sciences, Fundamental Constituents of Matter

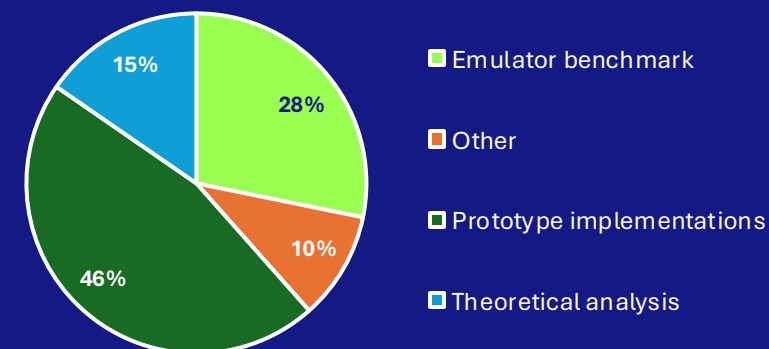


17% - NO PROOF
83% - PROOF

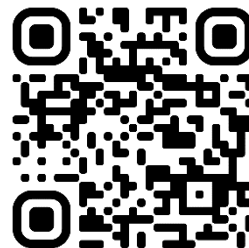
Requested HLST type - all cut-offs



Feasibility proof type (awarded proposals) -
all cut-offs



For more information, feel free to visit our website
and social media or contact us at:



Thank you !

[/eurohpc-ju.europa.eu](https://eurohpc-ju.europa.eu)[/EuroHPC_JU](#)[/eurohpc-ju](#)[/eurohpc-ju](#)quantum.access@eurohpc-ju.europa.eu



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ICHEC
Irish Centre for High Energy Computing



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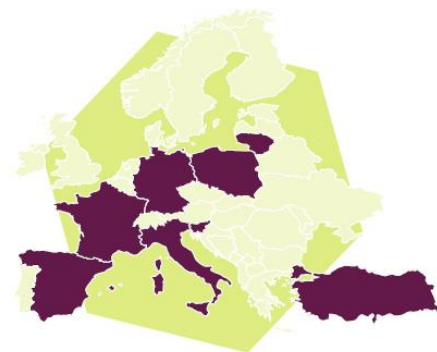
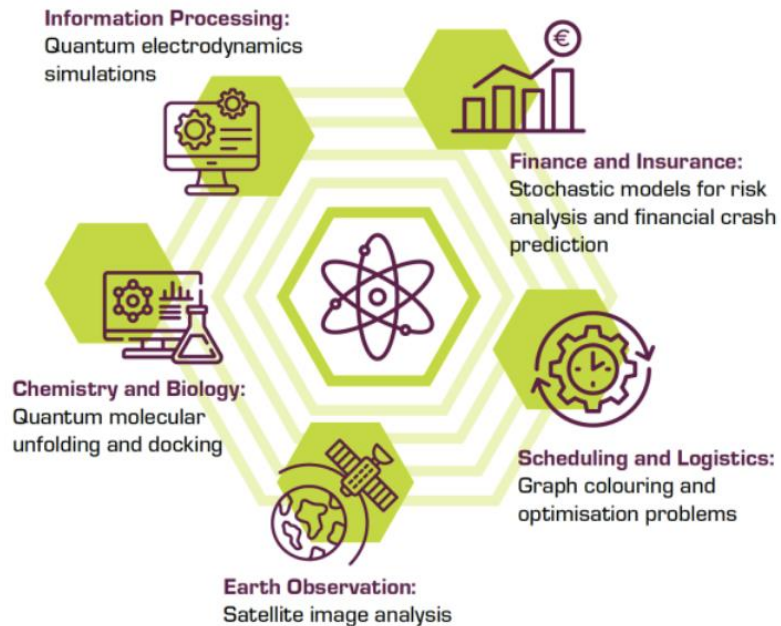


Quantum Excellence Centre for Quantum
Enhanced Applications



- Providing **a one-stop shop** for access to quantum applications, tools, and computing resources through a unified platform
- Translating quantum computing into practical, **real-world applications**
- Integrating **quantum technologies** with Europe's **high-performance computing** (HPC) infrastructure
- Strengthening skills, collaboration, and innovation across **Europe's quantum ecosystem**

Key Application Areas



Consortium of **19 research and industry partners** across 8 European countries

What We Provide

- A hardware-agnostic **application library**
- **Assisted and federated access** to European HPC–QC resources
- A comprehensive suite of hardware-specific **compilers and execution APIs**
- **Benchmarking tools**
- A dedicated **training** programme and **help desk** supporting scientists and developers in building and integrating quantum solutions



qec4qea.eu



QEC4QEA

QEX – A European Quantum Excellence Centre

- Explore applications & tools for quantum computing & simulation (QCS)
 - Engage & support end-users
 - Co-develop with QCS developers
 - Skills development & training
- QCS research and HPC centres
 - Application and domain expertise
 - Software and algorithm development
 - Infrastructure and benchmarking capability
 - Training & education programmes



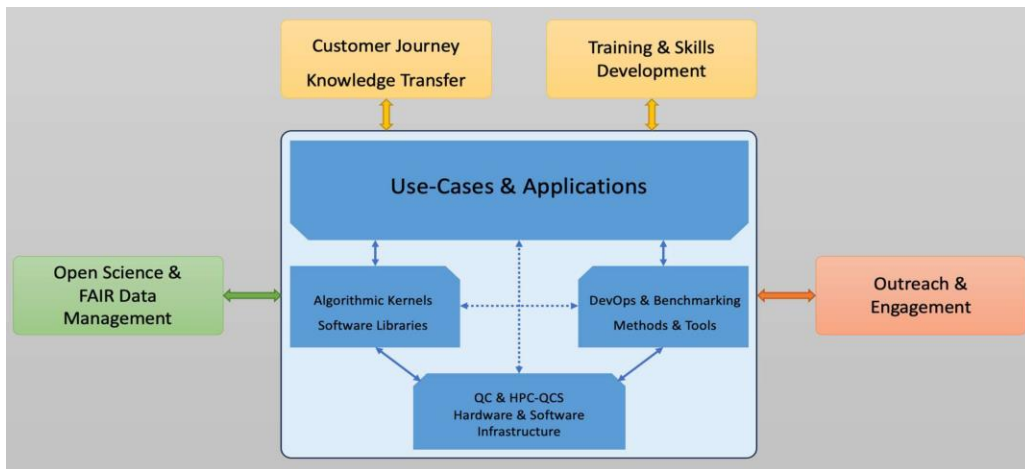
QEX – Users Services & Support

Use-case driven

Hybrid HPC-QCS

Customer journey approach

Open science (Quantum-EOSC)



QEX – Research, Innovation & Co-Development

Wednesday, 23 September 2026 | 14:00 - 15:30

PARALLEL SESSION: AI & Quantum Computing Use Cases

 In-person  PARALLEL

6 SPEAKERS



Emil Dimitrov
Computational Scientist
Irish Centre for High-End
Computing (ICHEC)



Luca Antiga
CTO
Domyn



Karin Chávez Caballero
QDNL Programme Manager &
QEX coordinator
QDNL



Mustafa Taha Koçyiğit
Head of AI
CureCraft



Ariana Torres-Knoop
Lead Quantum Computing
SURF NL



Catherine Watkinson
Lead Data Scientist
PolyChord Ltd

CURRENT WORKING PORTFOLIO

Around fourteen selected use cases and reusable assets

Different sectors, modalities and maturity levels - deliberately connected through the same delivery discipline.

ENERGY, WATER & INFRASTRUCTURE

WNTR-Quantum • N-1 grid security • PyPSA-Quantum • Prosumer Coalition Formation • Railway timetabling

EARTH OBSERVATION & MARITIME

QSVM4EO land-cover classification • Quantum-Bathymetry / for seabed mapping

FINANCE

QQuantLib • Multi-objective portfolio optimisation

QUANTUM SIMULATION & PROTOCOLS

QSE • Preparation of Spinons • Holographic error correction • Analogue QC regression • Unsupervised phase discovery

Portfolio principle

Maturity is not a score of importance. It tells us what evidence is needed next - formulation, benchmark, hardware test, integration or scaling.



Maturity is intentionally mixed

REUSABLE ASSET

e.g. QQuantLib, QSE

PROOF OF CONCEPT

e.g. WNTR-Quantum, portfolio optimisation

EXPLORATORY

e.g. railway, holography

QEX – Skills Development

 QCS Training & Knowledge Sharing Program Building expertise • Sharing knowledge • Advancing QCS		
Training Activity	Duration	Description
 Introductory session	 up to 0.5 day	Introductory sessions to present QCS as an emergent paradigm along with its positioning, maturity and ecosystem to new audiences.
 Targeted training	 up to 1 day	Customised briefing sessions for audiences grouped by disciplines, regions, maturity, algorithmic types, use-cases, QCS technology interests.
 General workshop	 up to 2 days	Interactive group sessions for a heterogeneous audience focusing on knowledge transfer between QEX, QCS technology developers and the user community, through presentations, demonstrations and brainstorming exercises. Aimed at cross-disciplinary knowledge transfer.
 Thematic workshop	 up to 2 days	Interactive group sessions with presentations, demonstrations and brainstorming on topical areas (QCS hardware and software infrastructure developers, discipline-specific algorithm and application developers) for knowledge transfer and co-design. Aimed at thematic expertise sharing, partnerships and advancements.
 Thematic hackathon	 up to 3 days	QEX mentored hands-on sessions for the end-user community to support their algorithm and application development efforts. These may be regional and/or pan-European events.
 Summer/Winter school	 up to 2 weeks	Multi-day retreats organised by QEX bringing together experts within the consortium and its network of external partners. Audience will primarily be early career researchers to share and advance their scientific work, enable collaboration, and community building.
 Webinar/Seminar	 up to 0.5 day	Webinar or seminar to expose concrete advances and case studies.
 Course/module	 up to 1 semester	Accredited academic/professional module delivered by a QEX partner/stakeholder.

QEX – FAIR data for Quantum R&I

Resource type	Examples
Data	Experimental, simulation, benchmarking, performance datasets
Software	Quantum software, libraries, algorithms and tools
Workflows	Reproducible workflows, pipelines and hybrid HPC-QC workflows
Compute	Quantum systems, simulators and HPC-QC platforms
Services	Analysis, benchmarking, simulation and other research services
Training & Skills	Documentation, curricula, training datasets, learning environments

