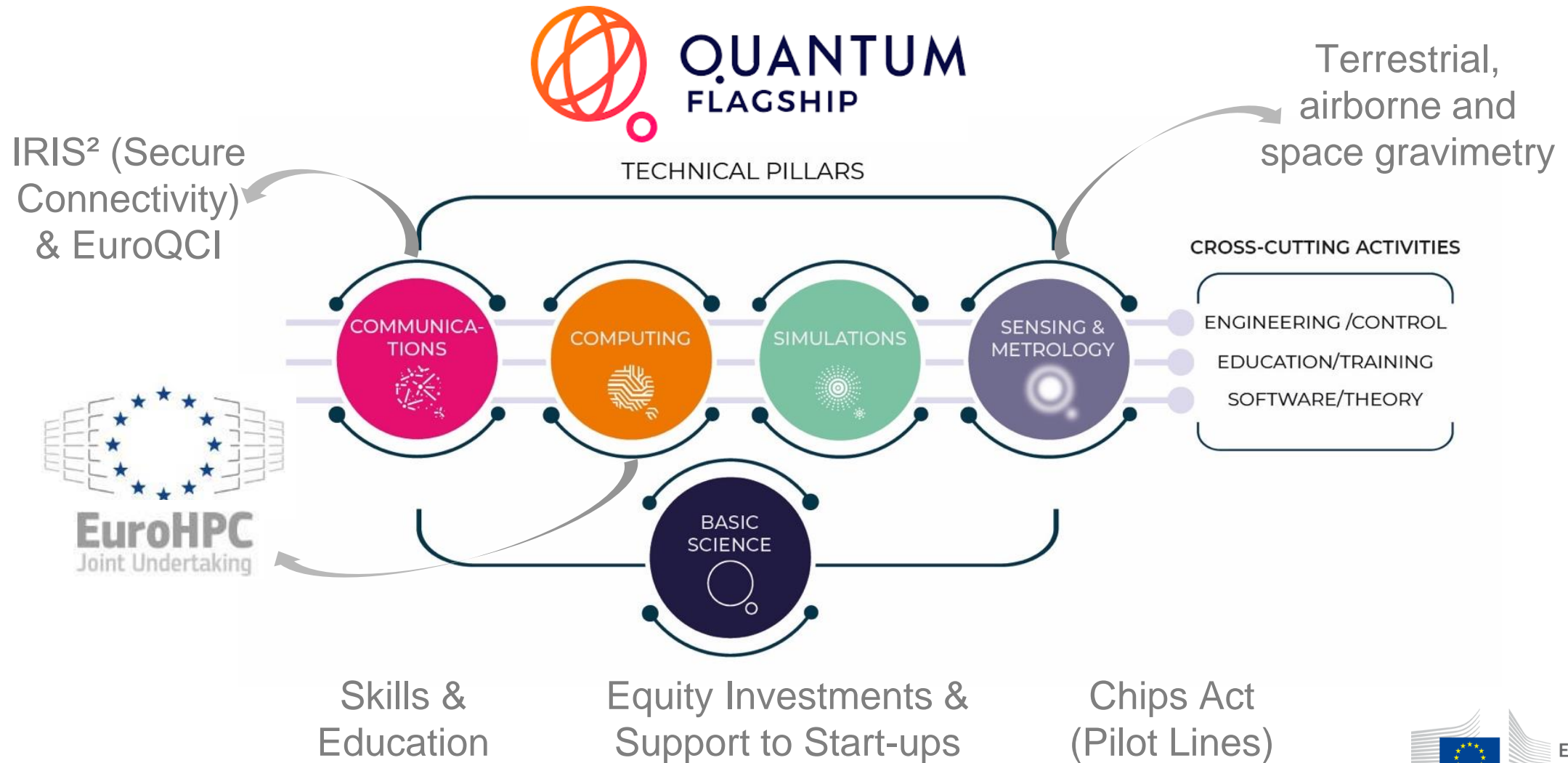


# Flagship on Quantum Technologies: a Paradigm Shift



# Flagship on Quantum Technologies: a Paradigm Shift

- HORIZON-CL4-2024-DIGITAL-EMERGING-02-01
- **Developing and deploying a network of quantum gravimeters in Europe**
  - Innovation Action
  - Article 22(5) (participation limited to entities in Member States, Iceland, Norway, Israel)
  - TRL 6 → 8
  - 25 M€, 1 project
  - Opening 23/04/2024 – Closing 18/09/2024
- Expected outcomes:
  - Demonstrate the advantage of quantum gravimeters in innovative operational settings (terrestrial + mounted)
  - Identify new use cases and provide innovative quantum gravimeter services for these use cases

# Quantum –

## 1. What are we looking for?

- Build on the Flagship ramp-up success stories
- Move the technologies up the TRL scale
- Lab to real-world deployments
- Build EU quantum ecosystem in a strategic field
- Focus on use cases relevant to EU priorities

# Quantum –

## 2. What do we not want?

- Consortium with only academia and without end-users
- Proposal not proposing to contribute to the wider EU quantum ecosystem
- Focus solely on terrestrial or mounted gravimetry
- Separate, non-consistent, approaches split between participants
- Ignore the long-term EU vision: ‘networked gravimeters as a service’, on Earth and in space

# Quantum – Topic evolution –

## 3. Is this new or has it featured before?

- Continuation of activities/projects of previous Quantum Flagship WPs
- From ramp-up to technology demonstration phase: support deployment
- Complementary to activities related to Quantum Space Gravimetry (global Earth monitoring – Destination 5)

# Quantum – Topic evolution –

## 4. Current project portfolio?

- Quantum Flagship projects
- Including on (high-TRL) sensing and gravimetry
- Complementary to activities related to Quantum Space Gravimetry (global Earth monitoring – Destination 5)

# Quantum – Key actors –

## 5. Types of main stakeholders addressed?

- Key: participation of end-users of the technology
- Support by research institutes, universities, RTOs, SMEs, industry...

# Quantum – Key actors –

## 6. Key group of actors driving this?

- Quantum Flagship Governance
  - Coordination and Support Action QUCATS
  - Strategic Advisory Board (SAB)
  - Quantum Coordination Board (QCB)
  - Quantum Community Network (QCN)



# Quantum –

## 7. Additional info / background documents?

- [Quantum | Shaping Europe's digital future \(europa.eu\)](https://europa.eu)
- [Homepage of Quantum Flagship | Quantum Flagship \(qt.eu\)](https://qt.eu)
- Recent highlights:
  - [New roadmap to position Europe as the 'Quantum Valley' of the world | Quantum Flagship \(qt.eu\)](https://qt.eu)
  - [EU leaders showcase quantum technology ambitions after signing landmark pact | Quantum Flagship \(qt.eu\)](https://qt.eu)
- Contact: High Performance Computing & Quantum Technologies unit
  - [cnect-c2-evaluations@ec.europa.eu](mailto:cnect-c2-evaluations@ec.europa.eu)

# Quantum – Future outlook –

## 8. Future trends, emerging initiatives...?

- [Quantum | Shaping Europe's digital future \(europa.eu\)](https://europa.eu)
- [Homepage of Quantum Flagship | Quantum Flagship \(qt.eu\)](https://qt.eu)
- Recent highlights:
  - [New roadmap to position Europe as the 'Quantum Valley' of the world | Quantum Flagship \(qt.eu\)](https://qt.eu)
  - [EU leaders showcase quantum technology ambitions after signing landmark pact | Quantum Flagship \(qt.eu\)](https://qt.eu)

# Quantum –

## 9. Upcoming events / information days?

No InfoDay