

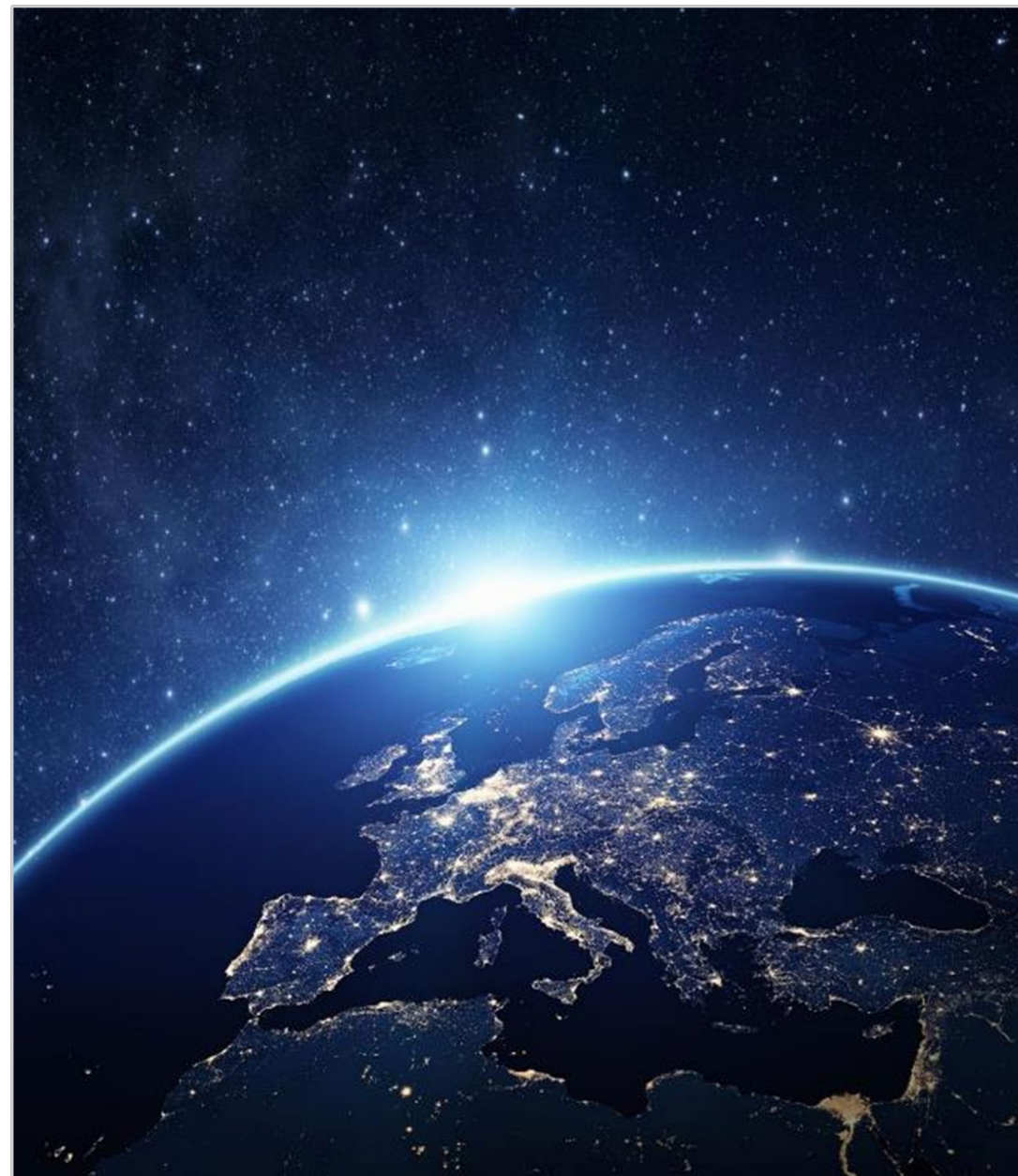


# QuantERA Call 2025 Proposers' Day

## QuantERA in Brief

*Elżbieta Hryniewicka*  
*QuantERA III Programme Coordinator*

*8 October 2025*





# Agenda

15:00	Welcome	NCN, Elżbieta Hryniewicka
15:05	<b>QuantERA in Brief</b>	NCN, Elżbieta Hryniewicka
15:15	Research targeted	NCN, Konrad Banaszek
15:25	Key facts, main requirements, topics description	ANR, Maurice Tia
15:40	Evaluation and selection process	AEI, Watse Castelein
15:55	Partner Search Tool & Electronic Submission System	ANR, Maurice Tia
16:10 16:25	Sharing experience - participating in QuantERA Calls for proposals	QRADES, Takis Kontos AQuSeND, Mf-QDS, Adam Wojciechowski
16:40	Q&A	All





# What is QuantERA?

Network of Research Funders  
supported by  
The European Commission

- Launching joint **calls for transnational projects** in basic and applied research
- Mapping **public policies** relevant to quantum technologies
- Fostering dialogue between **funders, policymakers, scientists and industry representatives**
- Supporting **inclusive and responsible** research and innovation





# QuantERA III Partners

**Austria** FFG, FWF

**Belgium** FNRS, FWO

**Bulgaria** BNSF

**Croatia** HRZZ

**Czechia** MEYS, TACR

**Estonia** ETAG

**Finland** AKA

**France** ANR

**Germany** DFG, BMBF, VDI TZ\*

**Hungary** NKFIH

**Ireland** TE-RI

**Israel** IIA

**Italy** MUR, NQSTI, CNR

**Latvia** LZP

**Lithuania** LMT

**Luxembourg** FNR

**Malta** MEYR

**Netherlands** QDNL, NWO

**Norway** RCN

**Poland** NCN, NCBR

**Portugal** FCT

**Romania** UEFISCDI

**Slovakia** SAS

**Slovenia** MVZI

**Spain** AEI, FECYT\*\*

**Sweden** VR

**Switzerland** SNSF\*

**Turkey** TÜBITAK

**United Kingdom** UKRI

**South Korea** NRF\*

\* Associated Partners, non-cofunded by the EC

\*\* Affiliated Entity to AEI



Research Funders  
for Quantum Technologies





# Strategic Advisory Board (SAB)



**Alain Aspect**  
Institut d'Optique



**Harry Burharm**  
University of Amsterdam  
CWI



**Tommaso Calarco**  
Forschungszentrum  
Jülich



**Eleni Diamanti**  
Sorbonne Université,  
Paris Centre for  
Quantum Computing



**Nicolas Gisin**  
University of Geneva



**Jennifer Hastie**  
University of Strathclyde



**Igor Jex**  
Czech Technical  
University in Prague



**Sir Peter L. Knight**  
Imperial College



**Josef Lazar**  
Institute of Scientific  
Instruments of the CAS



**Gerd Leuchs**  
Max Planck Society



**Yehuda Naveh**  
IBM Research Israel



**Saverio Pascazio**  
Università degli Studi di  
Bari



**Thorsten Schumm**  
Vienna University of  
Technology



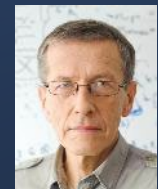
**Andrew Shields**  
Toshiba Research  
Labs Europe



**Jiri Vala**  
Maynooth University



**Dominik Zumbühl** University of  
Basel



**Marek Żukowski**  
Uniwersytet Gdański

*Currently 17  
members:  
internationally  
recognised  
**scientists**  
and **industry**  
**representatives***

# QuantERA Programme

launched in 2016  
by **30** RFOs  
from **26** countries



currently comprises  
as **QuantERA III**  
**40** RFOs  
from **30** countries

## Impact so far



**€117 M**  
funding

including a  
**€26,5 M**  
EC grant



**101**  
transnational projects

carried out by  
**541**  
national research teams



## CALL TIMELINE



**CALL BUDGET**  
~ €53 M



**TOPICS**  
Quantum Phenomena and Resources (QPR)  
Applied Quantum Science (AQS)



**PROJECTS DURATION**  
24 or 36 months



**29 COUNTRIES**  
Participating  
in the Call





# QuantERA Call 2025



## One-stage submission and evaluation procedure

**Each Funding Organisation allocates its own budget** – see Call Announcement

**3-3 rule:** at least 3 Partners from minimum 3 countries participating in the Call  
1 Principal Investigator takes a role of the Project Coordinator (PC)

## 29 participating countries:

Austria	Ireland	Romania
Belgium	Israel	Slovakia
Bulgaria	Italy	Slovenia
Croatia	Latvia	South Korea
Czechia	Lithuania	Spain
Estonia	Luxembourg	Sweden
Finland	Malta	Switzerland
France	Netherlands	Türkiye
Germany	Norway	United Kingdom
Hungary	Poland	





# Call Secretariat



## Leader

**ANR**  
French National Research  
Agency



## Support

**NCN**  NATIONAL SCIENCE CENTRE  
POLAND

National Science Centre  
Poland

## Evaluation

**AEI**



State Research Agency  
Spain





# Call 2025

## Sanctions EU Restrictive Measures

### **Call Announcement:**

*Countries subject to sanction(s) by the European Union authorities are excluded from this Call.*

*At the time of publication, these countries include the following: Belarus, Russia. Ukrainian territories out of control of the Ukrainian government are also concerned.*

*The list of sanctioned countries and territories might evolve, and application measures will be taken accordingly.*

See: <https://data.europa.eu/apps/eusanctionstracker/>





# All information on quantera.eu



NEWS ABOUT CALLS FUNDED PROJECTS ACTIVITIES PARTNERS MEDIA

Call 2025

## QuantERA Call 2025

**Call 2025 Announcement** (4 September 2025)

The QuantERA III Consortium announces a new Call for international research projects in Quantum Technologies **QuantERA Call 2025**.

Through this Call, the QuantERA Consortium seeks to boost cross-border collaboration and accelerate breakthrough research and cutting-edge engineering in quantum technologies, with funding from QuantERA partners and contribution from the European Commission.

**Funding:** ca. €53M

**Deadline for proposals submission:** 5 December 2025, 17.00 CET

### Application and evaluation procedure

The Call follows a **one-stage submission and evaluation procedure**.

The Project Coordinator (PC) prepares a joint proposal for the whole project consortium, using the templates available on the QuantERA website. The two forms (proposal form and financial form) composing the proposal are submitted via the **Electronic Submission System (ESS)**.

**Researchers are invited to apply for funding in one of two topics:**

- **Quantum Phenomena and Resources (QPR)** – with the goal of laying the foundations for the QT of the future;
- **Applied Quantum Science (AQS)** – aimed at leveraging established quantum effects and concepts from quantum science, translating them into technological applications and developing new products.

**All projects aligned with one of the two Call 2025 topics are expected to address one or more of the following areas:**

- Quantum communication
- Quantum computing
- Quantum simulation
- Quantum sensing and metrology
- General quantum science

### Countries participating in the Call:

Austria, Belgium, Bulgaria, Croatia, Czechia, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Türkiye, United Kingdom.

- Call documentation
- Electronic Submission System (ESS)
- Frequently Asked Questions
- Partner Search Tool
- Apply as an evaluator



### Call documentation

- Call Announcement
- Proposal Form
- Proposal Form – editable
- Financial Form
- Call Leaflet

### Electronic Submission System (ESS)

- Submission platform for: Quantum Phenomena and Resources (QPR)
- Submission platform for: Applied Quantum Science (AQS)
- ESS guidelines





# Providing funding to projects



**Research  
Funding  
Organisations**



**supported  
by the EC**



**Transnational R&I  
Projects**





# Transnational vs National level

## ESS SYSTEM

Joint  
application

Project  
Coordinator  
(PC)

Team 1  
Principal  
Investigator (PI)

Team 2  
Principal  
Investigator (PI)

Team 3  
Principal  
Investigator (PI)

Funding  
Organisation

Funding  
Organisation

Funding  
Organisation

## TRANSNATIONAL LEVEL

- ELIGIBILITY CHECK by Call Secretariat
- MERIT-BASED evaluation by international Evaluation Panel

If successful



Contracting  
Monitoring

Consortium Agreement  
QuantERA monitoring system

## NATIONAL LEVEL

formal check  
of the application

PI & RFO agreement  
RFO monitoring requirements





# QuantERA-funded projects

<https://quantera.eu/funded-projects-search-tool/>

## Projects catalogues

<https://quantera.eu/media/#Publications>

### Find projects in the QuantERA database

#### Project Status

- ☒ All Items
- ☐ Completed (38)
- ☐ In Progress (63)

#### Call

- ☐ Call 2017 (26)
- ☐ Call 2019 (12)
- ☐ Call 2021 (39)
- ☐ Call 2023 (24)

#### Topic

- ☐ Applied Quantum Science (AQS) (23)
- ☐ Quantum Phenomena and Resources (QPR) (40)

#### Areas of Research

- ☐ Quantum communication (25)
- ☐ Quantum computation (30)
- ☐ Quantum information sciences (21)
- ☐ Quantum metrology sensing and imaging (24)
- ☐ Quantum simulation (13)

#### Project Acronym

All Items

#### Country

All countries

#### Researcher

All researchers

#### Project Coordinator

All Items

#### Research Funding Agency

All Items

[Clear All Filters](#)



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QUANTERA

**Quantum Technologies**  
Research & Innovation in Europe

The QuantERA Project Catalogue: Call 2023



# QUANTERA

[quantera@ncn.gov.pl](mailto:quantera@ncn.gov.pl)

[www.quantera.eu](http://www.quantera.eu)

[@quantERA\\_EU](#)

## **Call Information:**

French National Research Agency (ANR), France

Call Secretariat Leader: [Maurice.Tia@agencerecherche.fr](mailto:Maurice.Tia@agencerecherche.fr)

## **Programme Coordination:**

National Science Centre (NCN), Poland

Coordination Office: [quantera@ncn.gov.pl](mailto:quantera@ncn.gov.pl)



Co-funded by  
the European Union





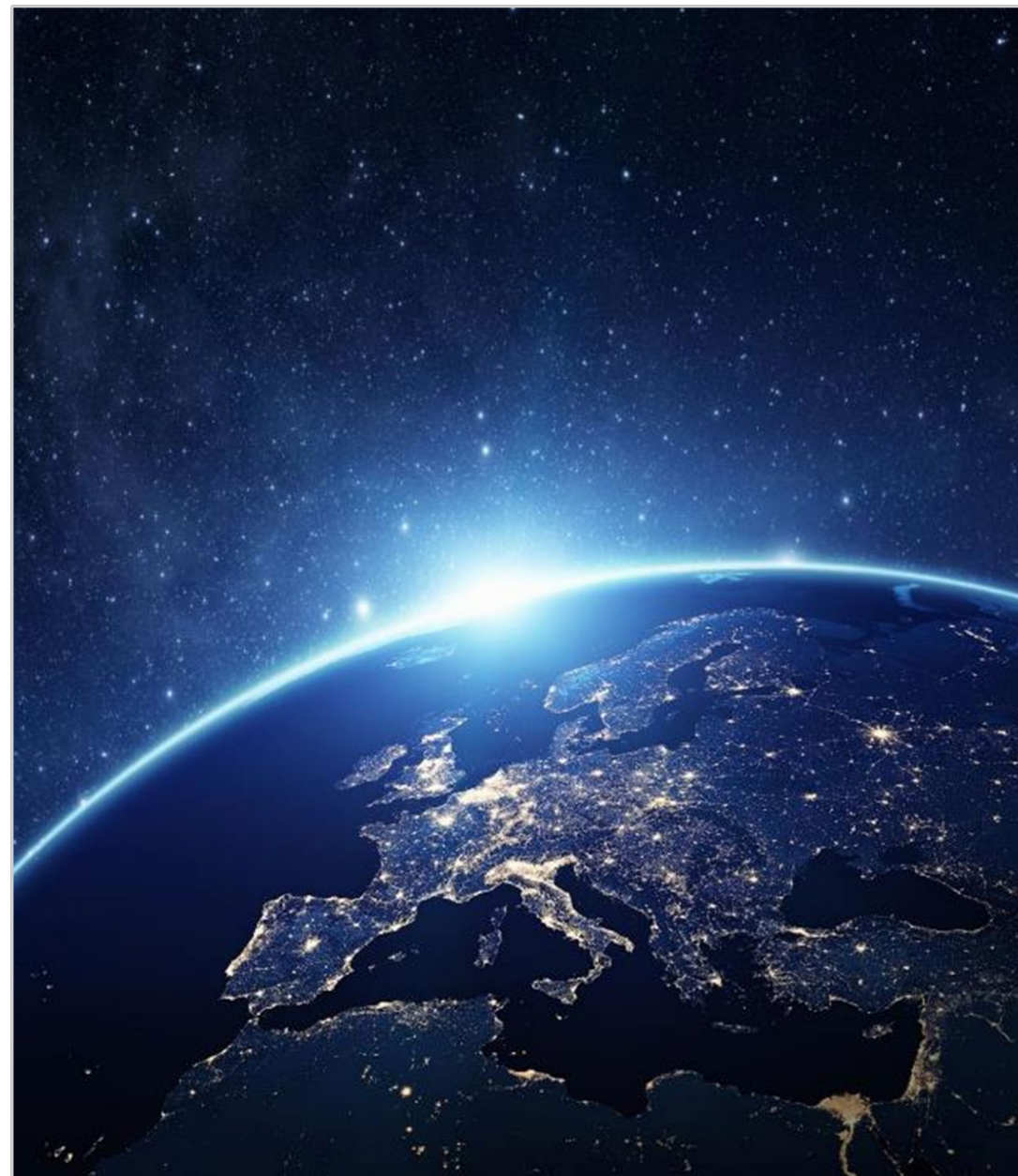
# QuantERA

## Call 2025 Proposers' Day

Research Targeted

*prof. Konrad Banaszek*  
QuantERA Scientific Coordinator

*8 October 2025*





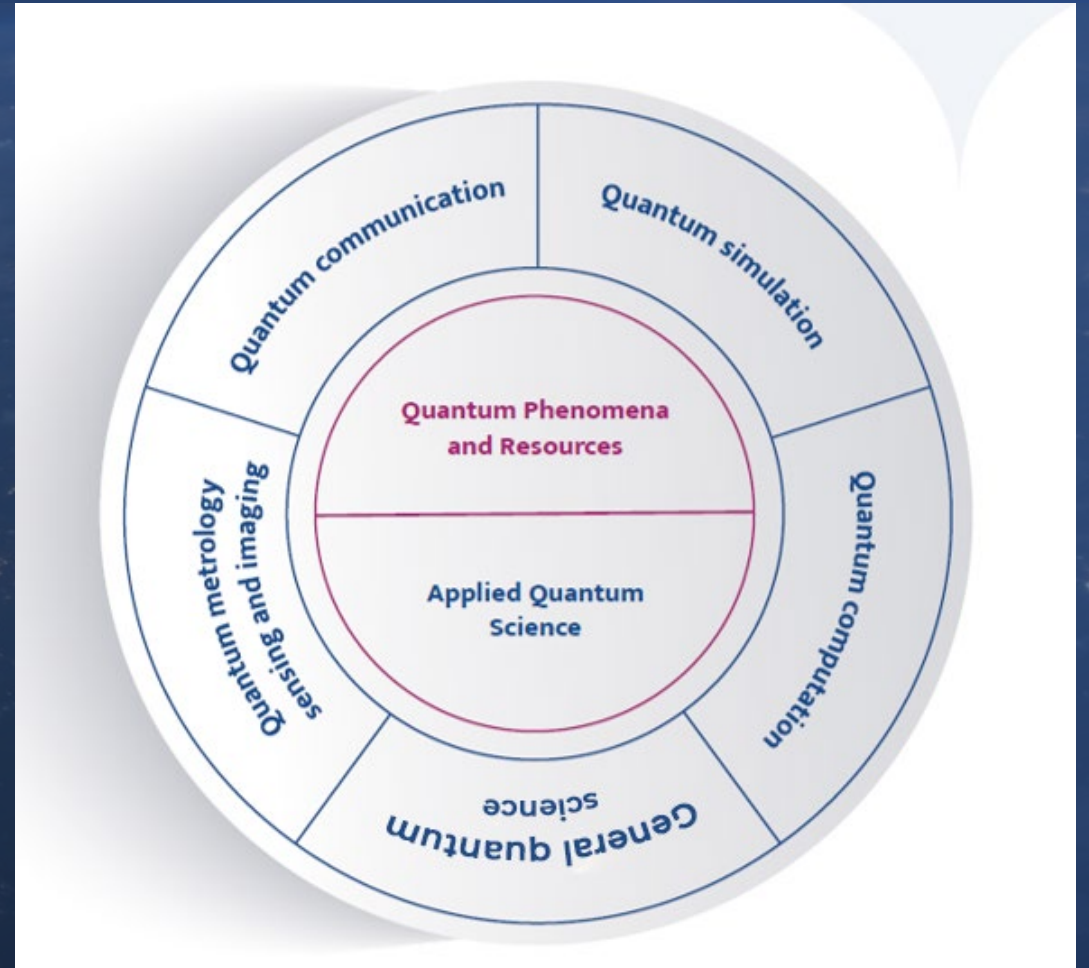
# Research Targeted

## Topics:

- Quantum Phenomena and Resources (QPR)
- Applied Quantum Science (AQS)

## Research areas:

- Quantum communication
- Quantum simulation
- Quantum computation
- Quantum metrology sensing and imaging
- General quantum science







# Research Targeted - topics

QPR

Laying the foundations for the Quantum Technologies (QT) of the future.

The focus is on basic quantum science and fundamental physics, and the projects should explore novel quantum phenomena, concepts, resources, protocols, algorithms, and/or address major challenges that prevent broad applications of some quantum technologies.

AQS

Translating quantum concepts into technological applications

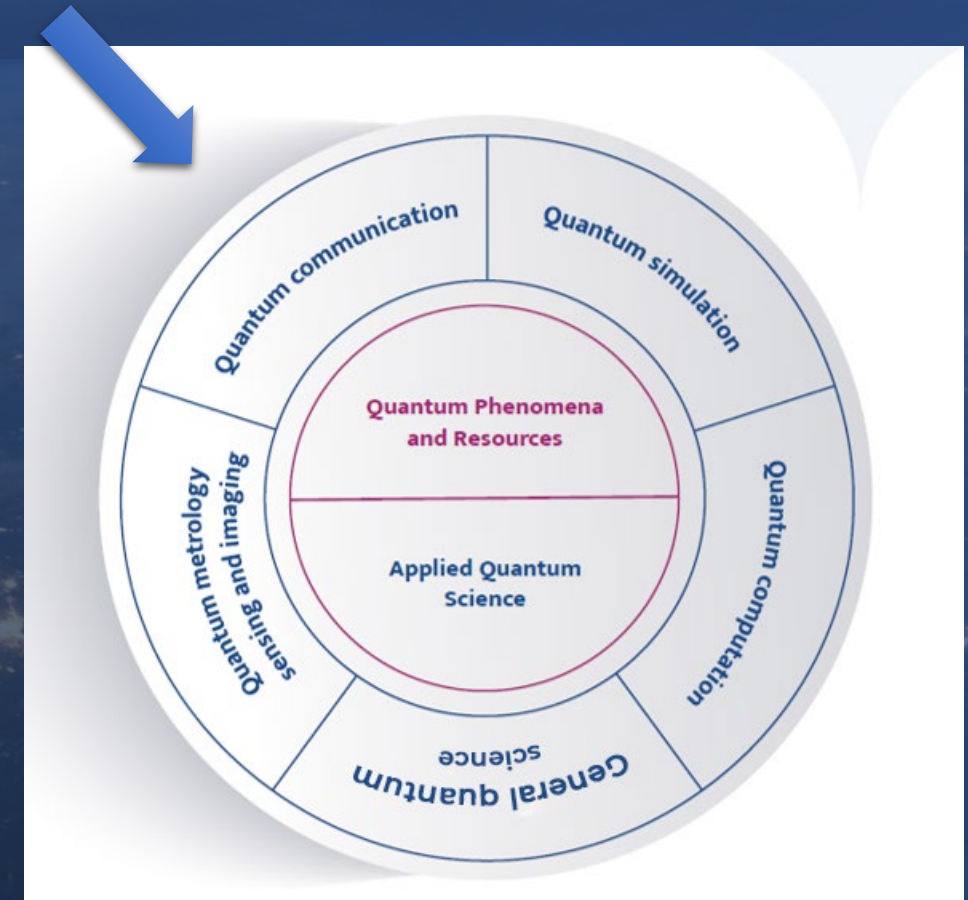
These could be novel devices that are based on known quantum effects and that will serve a novel application in QT, or devices and systems that translate known quantum applications into products and industrial applications.



# Targeted Outcomes

## 1. Quantum communication

- Methods/tools/materials/strategies to deal with the issues of distance, reliability, efficiency, robustness and security in quantum communication;
- novel protocols for multipartite quantum communication; quantum memory and quantum repeater concepts.
- novel photonic sources for quantum information and quantum communication, coherent transduction of quantum states between different physical systems;
- integrated quantum photonics;
- quantum communication embedded in optical telecommunications systems;
- other communication protocols with functionality enhanced by quantum effects;
- methods for quantum communications in space, between satellites and Earth.



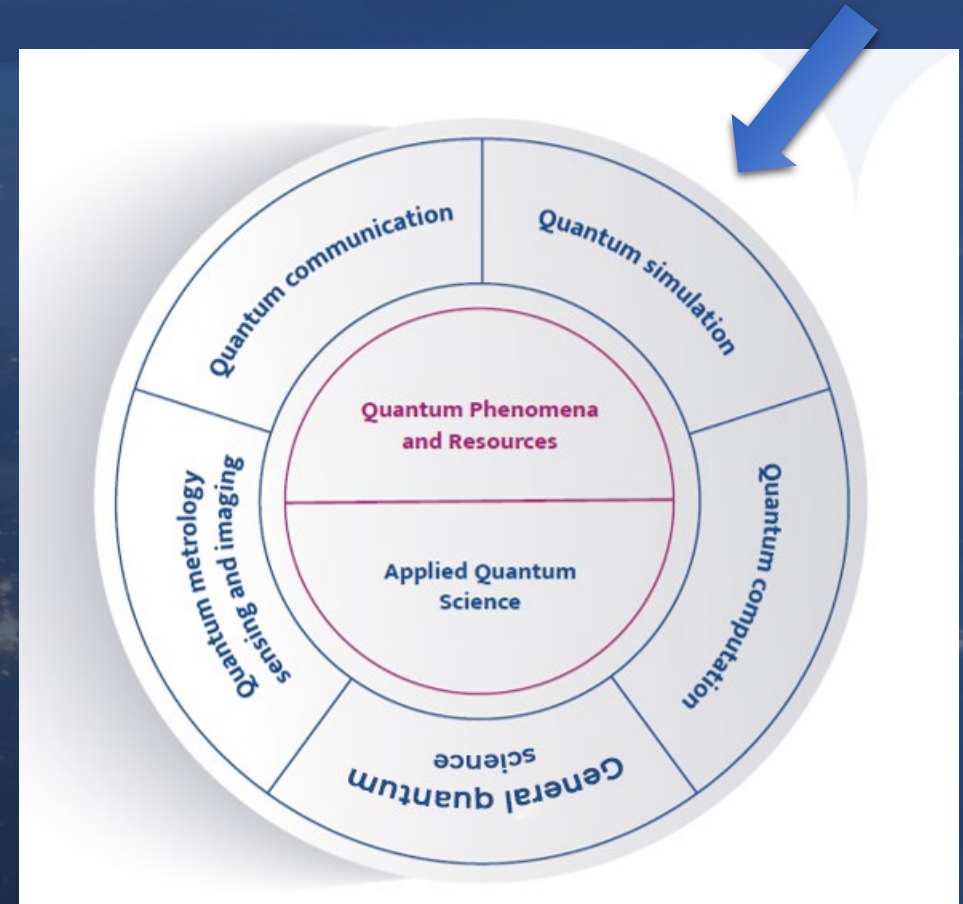




# Targeted Outcomes

## 2. Quantum simulation

- Platforms and materials for quantum simulation;
- development of new measurement and control techniques and of strategies for the verification of quantum simulations.
- Application of quantum simulations to condensed matter, chemistry, thermodynamics, biology, high-energy physics, quantum field theories, quantum gravity, cosmology and other fields.

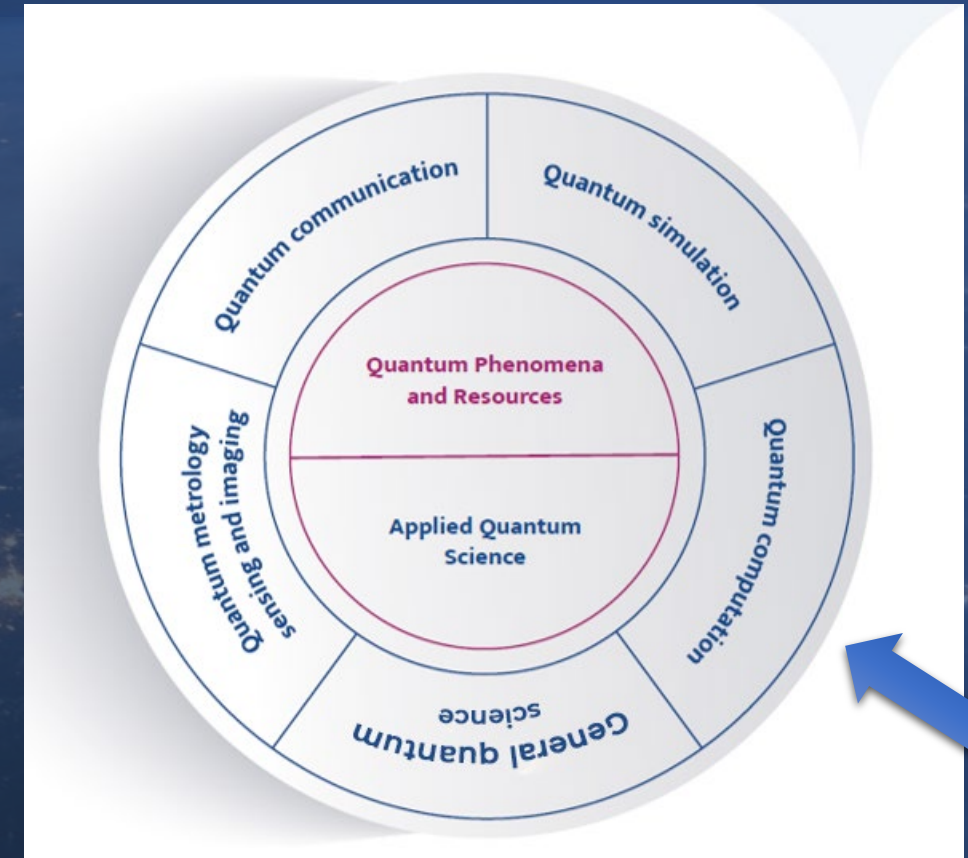




# Targeted Outcomes

## 3. Quantum computation

- Development of noisy intermediate-scale quantum platforms; devices to realise multiqubit algorithms; demonstration and optimisation of error correction codes; progress towards fault-tolerance;
- interfaces between quantum computers and communication systems.
- Development of novel quantum algorithms and software stacks;
- demonstration of quantum speed-up;
- new architectures and programming paradigms for quantum computation, including hybrid approaches.



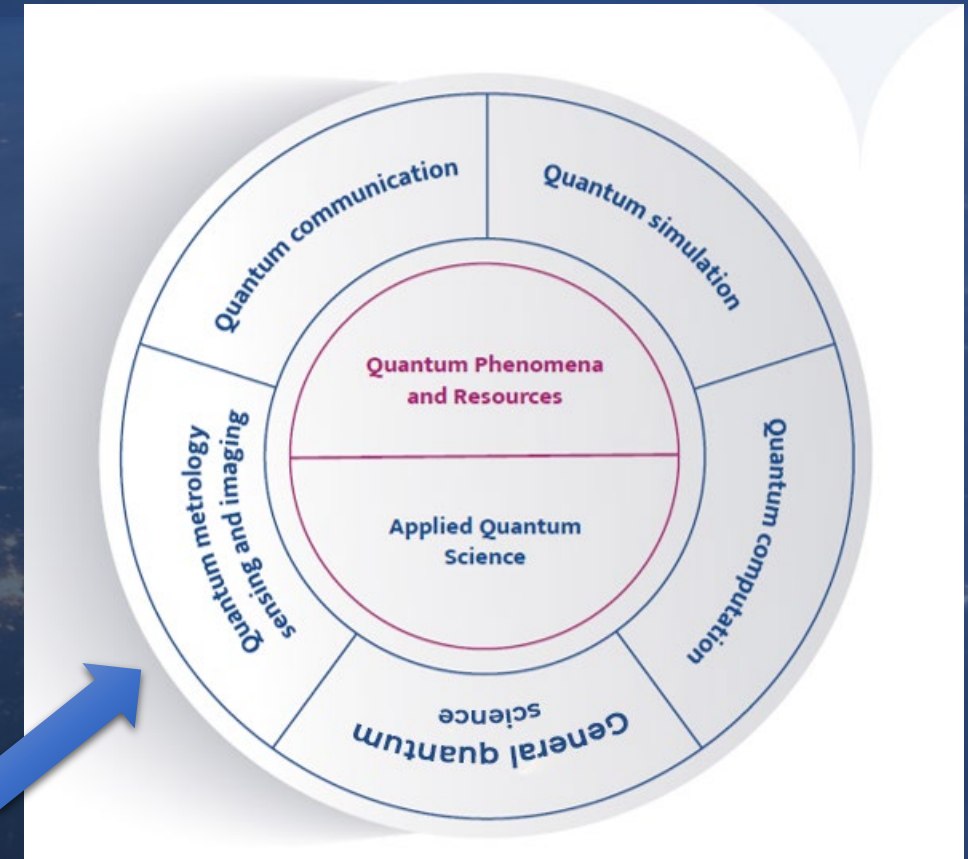




# Targeted Outcomes

## 4. Quantum sensing and metrology

- Use of quantum properties for time and frequency standards, light-based calibration and measurement, gravimetry, magnetometry, accelerometry, and other applications.
- Development of detection schemes that are optimised with respect to extracting relevant information from physical systems; novel solutions for quantum imaging and ranging.
- Implementation of micro- and nano- quantum sensors, for instance for quantum limited sensitivity in the measurement of magnetic fields at the nanoscale.
- Extension of the reach of quantum sensing and metrology to other fields of science including e.g. the prospects of offering new medical diagnostic tools.





# Targeted Outcomes

## 5. General Quantum Science

- Novel sources of non-classical states and methods to engineer such states.
- Development of device-independent quantum information processing.
- Methods for the reconstruction and estimation of complex quantum states or channels and certification of their properties.
- Development of resource theory for quantum information.
- Study of topological systems for quantum information purposes.
- Understanding and control of open quantum systems and quantum measurement processes; development of methods to confine dynamics in controllable decoherence-free subspaces.
- Study of thermodynamic processes at the quantum scale.
- Novel ideas and applications in quantum science and technologies, based on e.g. superposition, interference and entanglement, as means to achieve new or radically enhanced functionalities.







# Expected impacts

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- Develop a deeper fundamental and practical understanding of systems and protocols/algorithms for manipulating and exploiting quantum information,
- Enhance the robustness and scalability of quantum information technologies in the presence of environmental decoherence, hence facilitating their real-world deployment,
- Develop reliable technologies for the different components of quantum architectures,
- Identify new opportunities and applications fostered through quantum technologies, and the possible ways to transfer these technologies from laboratories to industries,
- Enhance interdisciplinarity in crossing traditional boundaries between disciplines in order to enlarge the community involved in tackling these new challenges,
- Move towards a gender diverse and inclusive quantum community, in particular targeting PhD students and early-career researchers,
- Spread excellence throughout Europe by involving partners from the Widening Countries,
- Build leading innovation capacity across Europe by involvement of key actors that can make a difference in the future, for example excellent young researchers, ambitious high-tech SMEs or first-time participants.