Protect your IP in quantum technologies: Focus on quantum computing

Agenda

- Agenda:
- **10.00 Introduction**
- **Jürgen Mühl,** European Patent Academy, EPO
- **Michele Dubbini**, IP Advisor European IP Helpdesk
- **10.05 Innovation market and trends in Quantum Computing**
- **Johannes Schaaf,** Patent Analyst, EPO
- **10.25 Patentability issues in Quantum Computing**
- **Simon Theissing,** EPO Examiner in the field of Core AI and Quantum Computing
- **10.45 Case Study from HEU funded project: Foqacia**
- **Cihan Okay,** Bilkent University, Foqacia Project
- **11.05 Short Overview of the European IP Helpdesk and EPO Academy services**
- **Jürgen Mühl,** European Patent Academy, EPO
- **Michele Dubbini**, IP Advisor European IP Helpdesk
- **11.15 Q&A**

[REC]

PROTECT YOUR IP IN QUANTUM TECHNOLOGIES

FOCUS ON QUANTUM COMPUTING

JOHANNES SCHAAF | CHIEF ECONOMIST UNIT | MARCH 2026 | VERSION 01

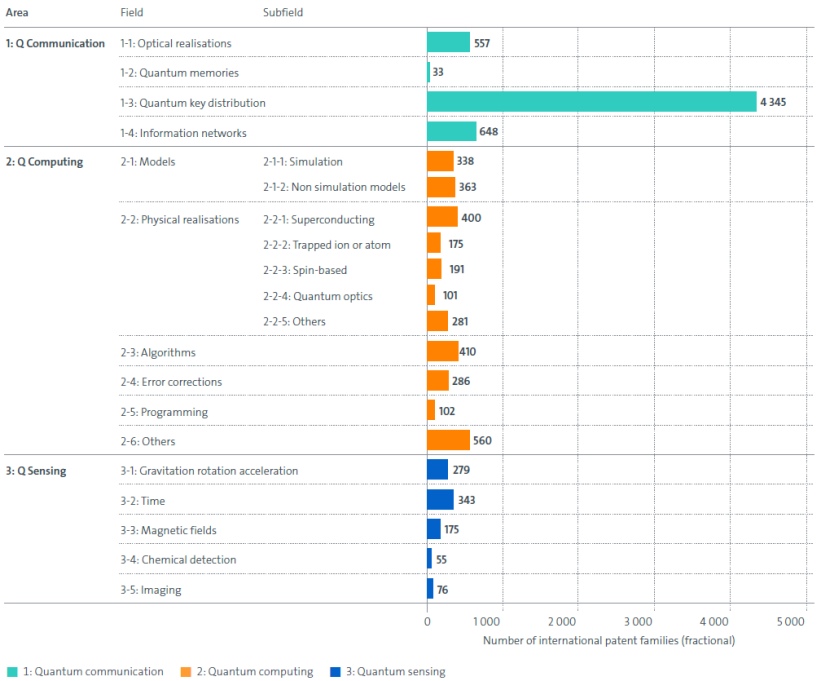
THE PROMISE OF QUANTUM TECHNOLOGIES

Quantum developments represent foundational next-generation technologies poised to drive substantial economic and security impacts.

Quantum communications	Quantum computing (and simulation)	Quantum sensing
Enhanced security, with nearly unbreakable encryption, increasing trust in digital governance	Rapid problem-solving in fields like complex optimisation or AI, with savings on energy consumption	Applications in medical disease detection, navigation, and environmental monitoring

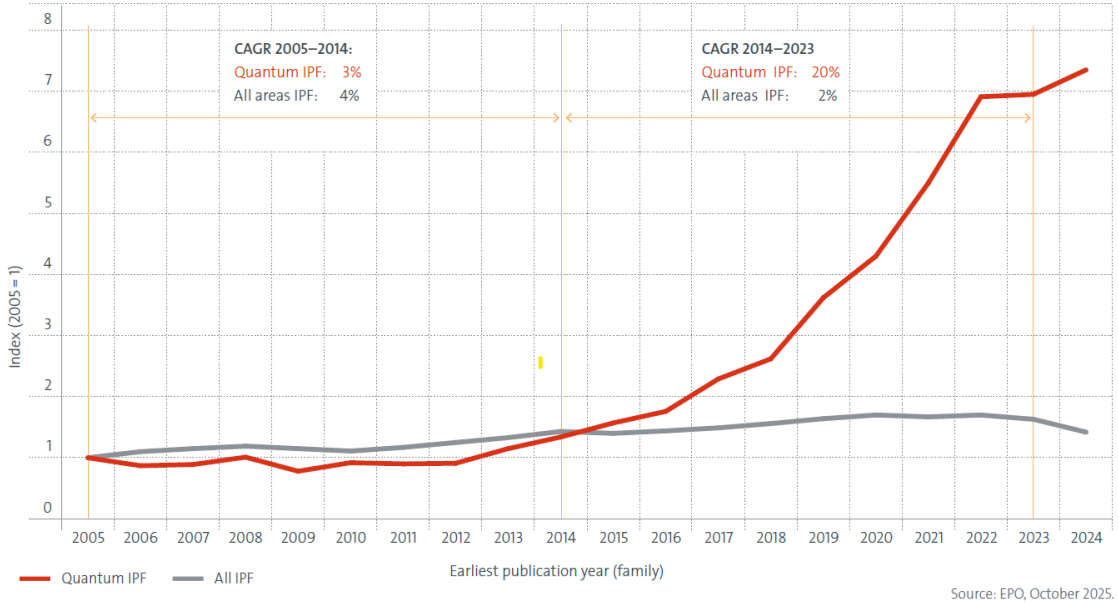
Potential to contribute to several UN SDGs:

QUANTUM CARTOGRAPHY AND PATENT PUBLICATIONS



INNOVATION IN THE QUANTUM ECOSYSTEM IS RAPIDLY ACCELERATING

Normalised trends for IPFs in quantum technologies vs all technology domains



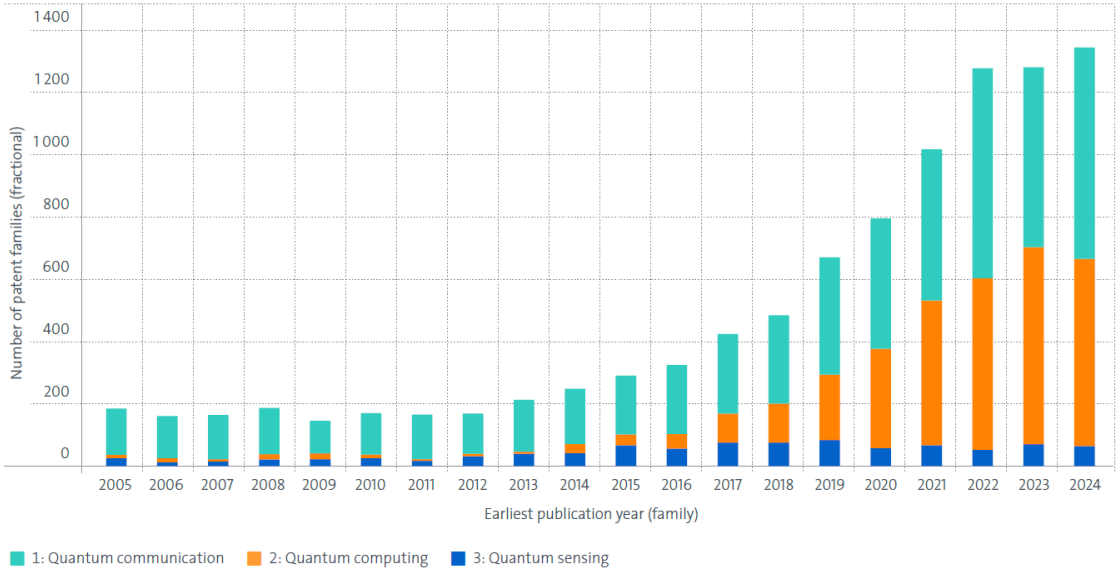
Source: EPO, October 2025.

- Since 2014, quantum patents have grown at a much higher pace than overall patents.
- This reflects a dynamic technological landscape where experimentation is thriving.

CAGR = Compound annual growth rate

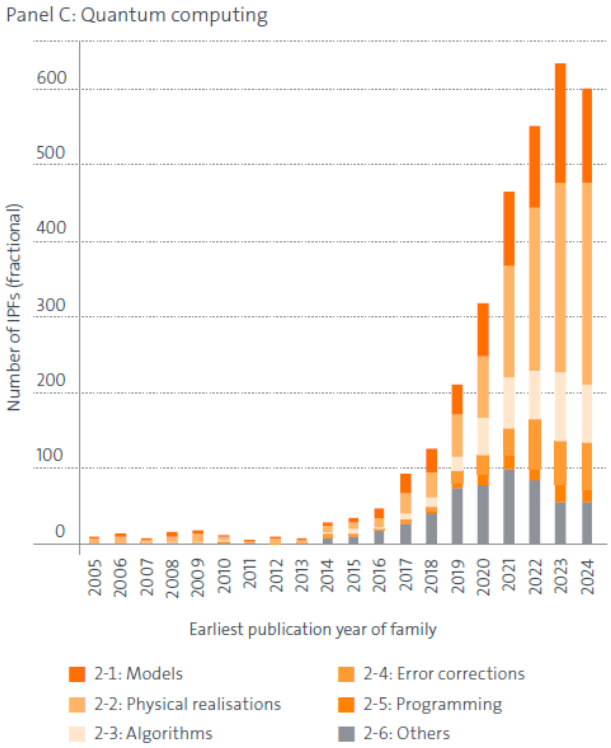
BUT PATENT GROWTH IS UNEVEN ACROSS QUANTUM TECHNOLOGIES

Trends in IPFs in quantum technologies by quantum area



Source: EPO, October 2025.

- Quantum computing patents have grown fastest.
- Communication plays a leading role but grew less fast.
- Despite their industrial potential, sensing and metrology are experiencing lower levels of patenting.



FOCUS ON QUANTUM COMPUTING

- Physical realisations in quantum computing patents have grown fastest - of which superconducting is the platform with the highest share

QUANTUM COMPUTING: PHYSICAL REALISATIONS

Platform	Vacuum (UHV)	Cryo (millikelvin)	What is being manipulated	How it works	Communication	Computing	Computing Simulation	Sensing
Optical traps	✓		Neutral-atom internal states	Focused laser light forms tiny traps confining single neutral atoms in vacuum.	1	2	3	2
Magnetic traps	✓		Neutral-atom internal states	Precisely shaped magnetic fields create low-energy regions that hold selected atoms in place.	0	1	2	3
Electromagnetic traps	✓		Trapped-ion internal states	Oscillating electric fields generate a stable potential well that suspends individual ions.	2	3	2	2
Superconducting circuits		✓	Superconducting current (loop state)	Cryogenic superconducting loops create controllable microwave circuits that act as quantum bits.	1	3	2	2
Quantum dots		✓	Single-electron spin (magnetic orientation)	Nanoscale semiconductor islands isolate one electron whose energy or spin can be individually controlled.	2	2	1	1
Diamond NV centres			Defect electron spin	A nitrogen-vacancy defect in diamond hosts a spin that can be set and read optically, even at room temperature.	2	1	1	3
Diamond SiV centres		✓	Defect electron spin	Silicon-vacancy defects in diamond emit ultra-pure photons for linking distant quantum nodes.	3	1	0	1
Silicon carbide defects			Defect electron spin	Crystal defects in silicon carbide provide long-lived spins on wafers compatible with standard chip processes.	2	1	0	3
Topological materials		✓	Majorana quasiparticle states	Engineered materials encode information in protected quantum states resistant to many local errors.	0	1	1	0
Optical cavities			Single photons	Highly reflective mirrors trap light between them, boosting its interaction with atoms or solid-state emitters.	3	2	1	2
Optical waveguides/ networks			Single photons	On-chip glass or silicon channels route single photons with minimal loss to build scalable light-based circuits.	3	2	1	1
Molecular magnets/ complexes			Molecular-electron spin	Tailored molecules lock an electron's magnetic orientation, forming customisable quantum units at moderate temperatures.	0	1	2	2

Notes: Scores reflect current research adoption (mid 2025), not a crosscolumn commercial readiness ranking. 0 – No current role: not practically used within this technology; 1 – Exploratory: proof-of-concept experiments only, usefulness for this technology remains uncertain; 2 – Validated: proven through reliable and reproducible results, but not yet broadly adopted within this technology; 3 – Mature: widely adopted as a standard research tool and central to ongoing progress in this technology.

QUANTUM COMPUTING – CASE STUDY: PASQAL

Headquarters Paris, France

Founded 2019

No. of employees 300

Products Neutral atom quantum computers, application software and cloud services

Webpage www.pasqal.com

Full EPO innovation case study
link.epo.org/elearning/en-sme-case-study-pasqal.pdf

QUANTUM COMPUTING – CASE STUDY: C12

Case study: C12

Headquarters Paris, France

Founded 2020

No. of employees 60

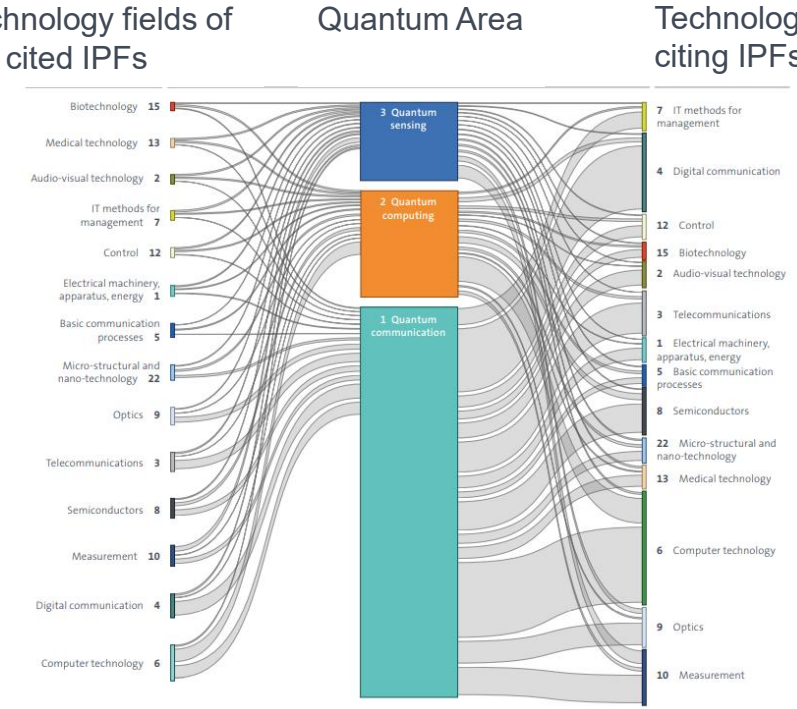
Products Carbon nanotube quantum processors and emulator testing for quantum applications

Webpage www.c12qe.com

Full EPO innovation case study

link.epo.org/elearning/en-sme-case-study-c12.pdf

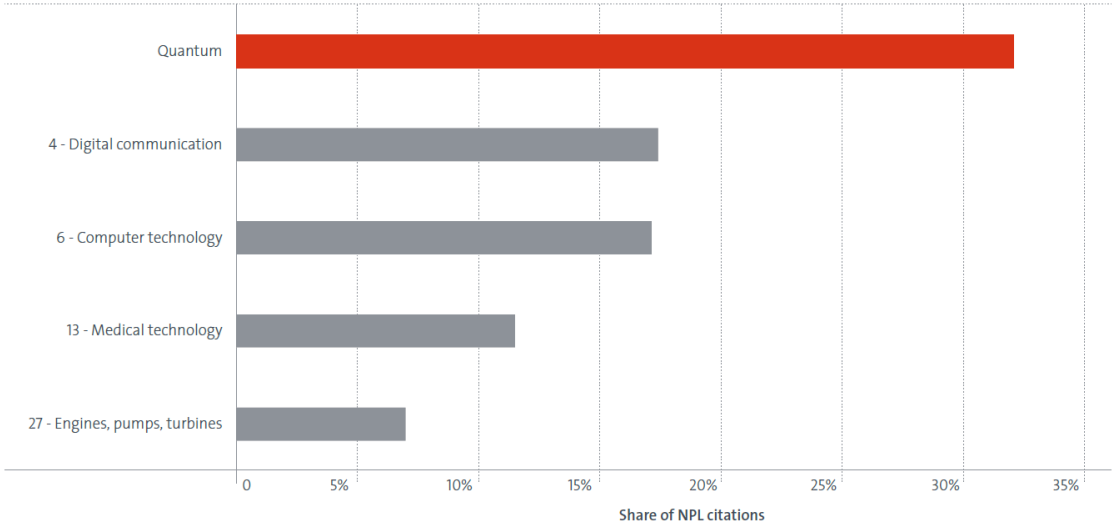
TECHNOLOGY FIELDS AND KNOWLEDGE FLOWS IN QUANTUM



Quantum communication exhibits both a higher number and a broader spread of forward citations, reflecting its wider technological reach compared to quantum computing, which shows fewer forward linkages. This points to the growing importance of quantum cryptography and its application across various technological domains, particularly in securing communication systems. Quantum technologies are upstream enablers.

INNOVATION IS STILL VERY CLOSE TO SCIENCE

NPL backward citation rate in quantum vs other technology fields: 2005-2024



Source: EPO, October 2025.

- One in three citations made by quantum patents refer to scientific non-patent literature (NPL) such as journal articles, indicating a strong proximity to frontier research.
- This reliance on scientific sources is much higher than in other important technology fields.

GEOGRAPHICAL CONCENTRATION BUT STRONG INTERNATIONAL COMPETITION

Contribution of quantum IPFs by region with RTA by region

Source: EPO, October 2025.

RTA= Revealed technological advantage

- The US leads in IPFs, but with a declining share (from 41% to 31%)
- Europe follows, with an increasing share (from 19% to 25%), alongside significant contributions from Japan, China, Korea and Canada
- Strong specialisation (RTAs above 1) in: Canada, UK, Finland, US, France and Netherlands

TRACK QUANTUM PATENTS AND STARTUPS (epo.org/quantum)

New platform on quantum technologies

Track quantum innovation in real time

Identify patents in 18 subfields of quantum

Retrieve bibliographical details and statistics

Deep Tech Finder – Updated quantum filter!

Tech filter 324 entities with patents in **quantum**

Funding Identify **investors** in startups

European patents Access to patent data on **Espacenet**

New case studies on quantum startups

Case study: C12

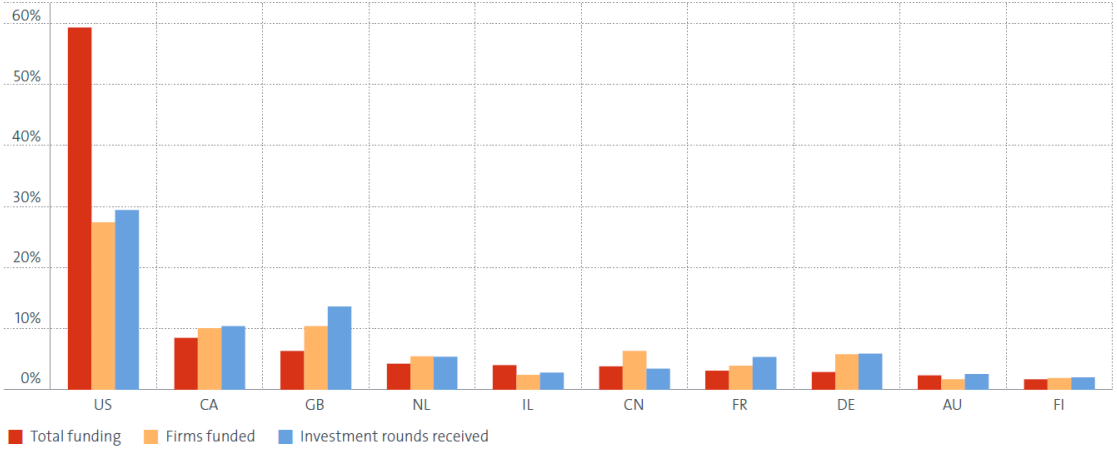
Case study: PASQAL

First hand insights on

- IP strategy and management
- Commercialisation and scaling up
- Funding from investors

PARTICULARLY HIGH GEOGRAPHICAL CONCENTRATION IN FUNDING

Country shares in global quantum funding, firms funded and investments rounds

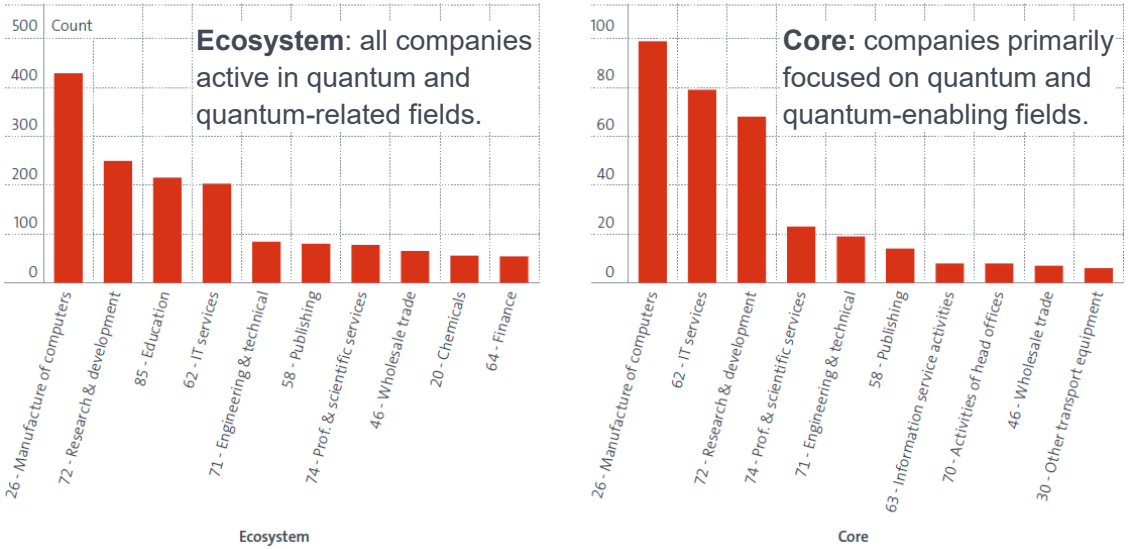


- Around 60% of total quantum funding ever recorded went to US-based companies
- Even though the US is home to only approximately 30% of all quantum IPFs and startups.

Source: OECD calculations based on OECD, STI Micro-data Lab, October 2025.

YOUNG FIRMS FOCUSED ON QUANTUM DEVELOPMENT COEXIST WITH DIVERSIFIED, ESTABLISHED ORGANISATIONS

Quantum firms by industries: entire period

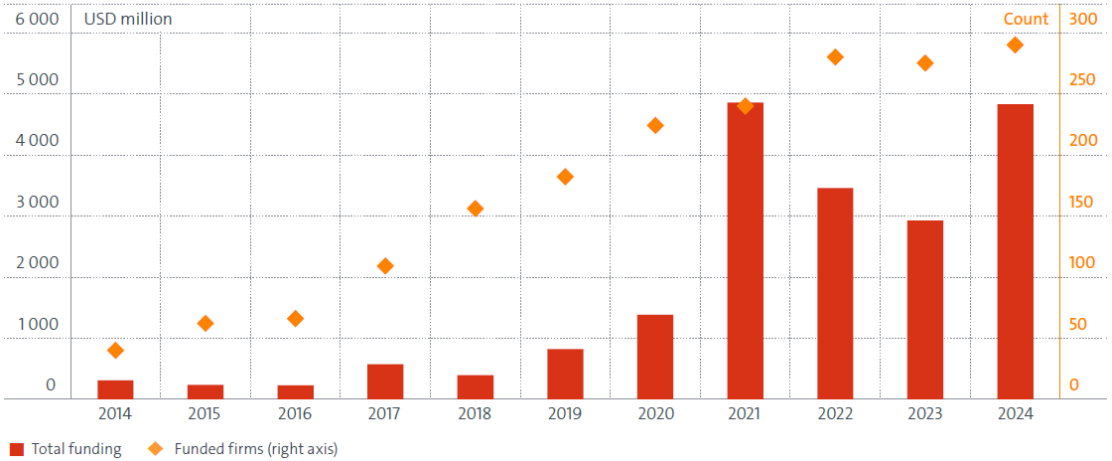


Source: OECD calculations based on OECD, STI Micro-data Lab and Orbis, Bureau van Dijk, October 2025.

- Most companies in the ecosystem belong to high tech sectors
- However, in the ecosystem, quantum firms are active in a broader set of industries, including “Education” “Chemicals” and “Finance”
- Within the “core”, three high-tech sectors stand out particularly: “Manufacture of computer,”; “IT services” and “Research & development”.

VC FUNDING SUGGESTS CHALLENGES TO SCALING UP AND BUSINESS APPLICATIONS

Total funding to and number of core quantum firms financed: 2014-2024

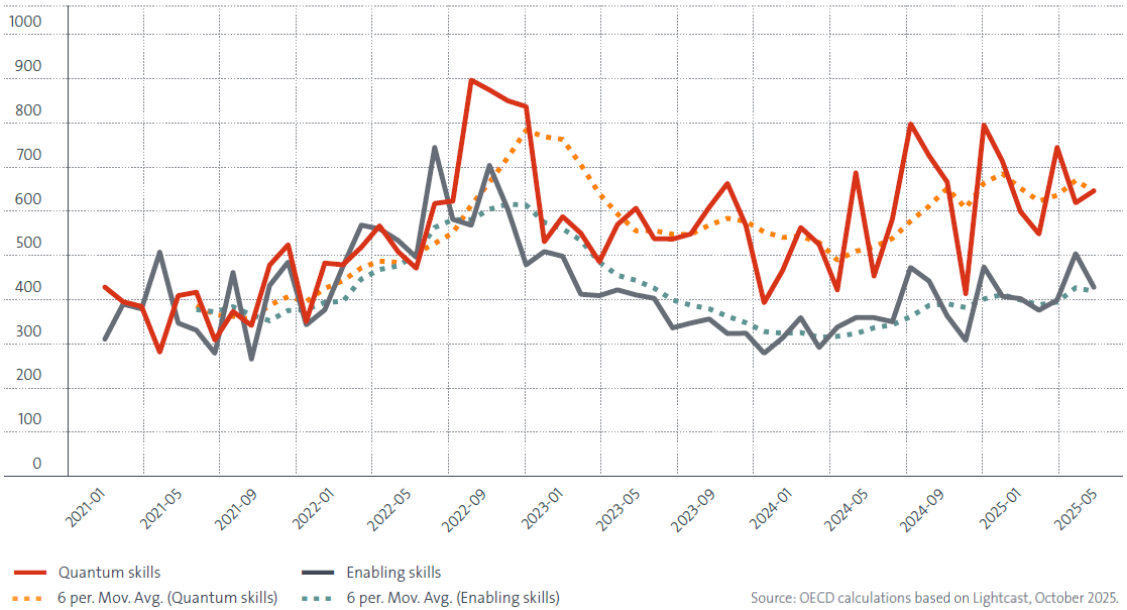


- The number of funded firms and the total invested capital increased significantly until 2022.
- Investment activity declined sharply in 2022 and 2023 before recovering in 2024
- The number of funded firms is plateauing.

Source: OECD calculations based on OECD, STI Micro-data Lab, October 2025.

FLAT JOB POSTINGS: IS DIFFUSION PLATEAUING?

Number of job postings per month, January 2021-July 2025, with 6-month moving average included

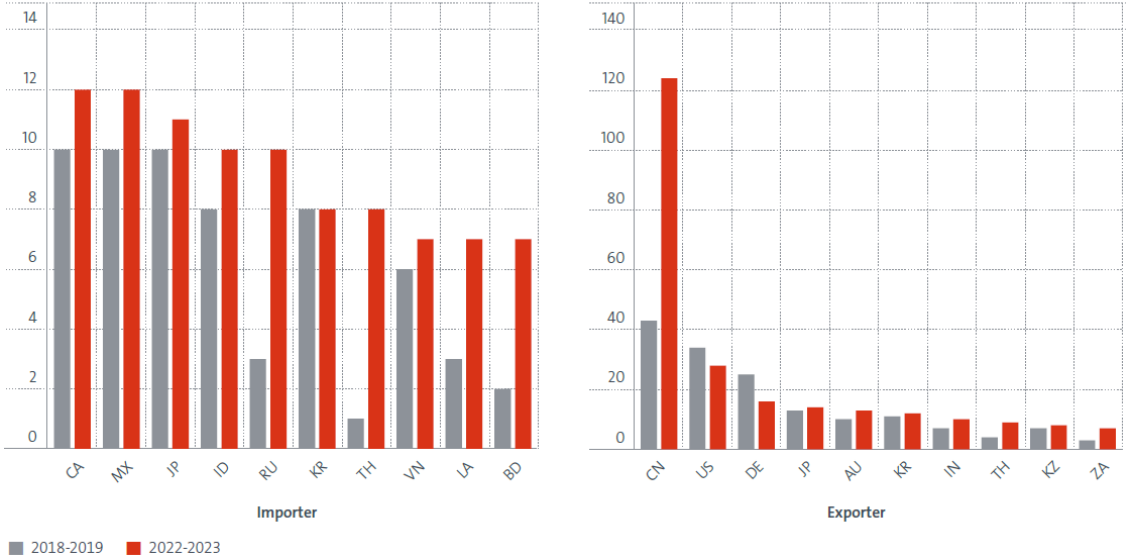


Source: OECD calculations based on Lightcast, October 2025.

- The number of job postings demanding quantum and enabling skills has remained stable, showing no recent acceleration.
- Activity peaked at the end of 2022, coinciding with a slowdown in firm entry and investment.

TRADE DEPENDENCIES ON KEY INPUTS ARE ON THE RISE

Total trade dependencies for quantum-relevant goods by type: 2022-2023 and 2018-2019

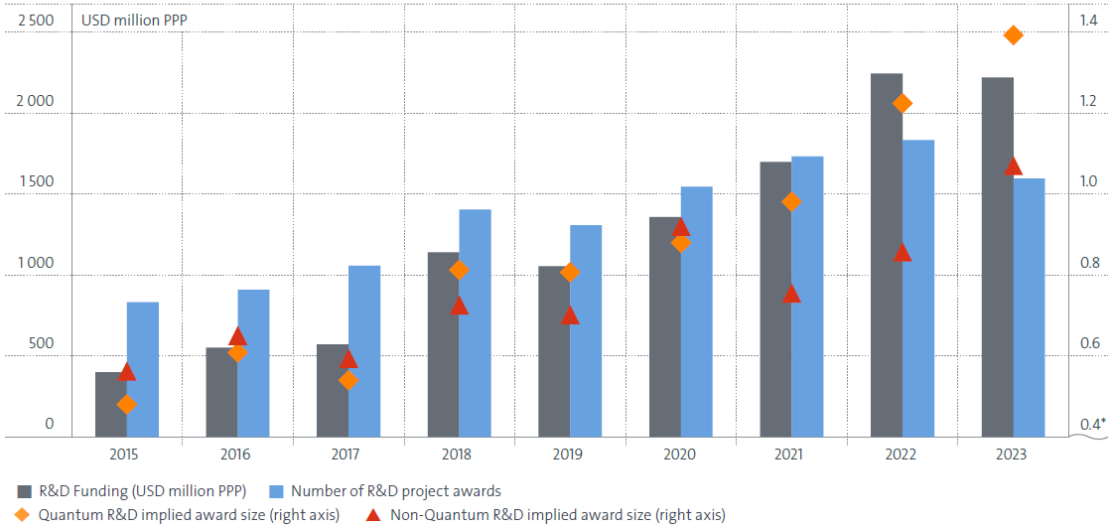


- Overall increase in dependencies (except for Korea)
- In 2022-2023, China (as an exporter) accounted for 124 of the 329 dependencies in the quantum ecosystem, 3x from 2018-2019
- US and Germany also hold strategic positions in the value chain, but fewer economies depend on them than in the past.

Source: OECD calculations based on UN BACI database, August 2025

INITIAL POLICY FOCUS ON R&D, NEW POLICY CYCLE NEEDS TO BROADEN SCOPE OF SUPPORT

Estimated annual Quantum R&D size: funding and implied award size 2015-2023



Source: OECD analysis of the OECD Fundstat database (v.2024), October 2025

- Early policies focused on R&D; newer strategies also emphasize industrial support and commercial applications.
- Increase in both number of R&D awards and their size
- Publications have surged, concentrated in the EU, US, and China.
- International collaboration, historically higher in this field than average, has plateaued and declined since 2018.

CONCLUSIONS

- Quantum technologies hold great potential across a wide range of downstream industries and applications.
- Innovation is advancing rapidly, particularly in quantum computing, but it's uneven across quantum technologies and further development is required for the technologies to reach full maturity.
- Young firms focused on quantum development coexist with diversified, established companies
- The number of new entrants and scale of investment are progressing – especially, but not only, in the United States – though some signs of plateauing are emerging, suggesting challenges to scale up and business applications
- Policies, which had initially focused mainly on R&D, are progressively placing greater emphasis on supporting commercialization.
  For example, through initiatives to develop the complex skills needed for this sector.

THANK YOU

Download the report at:

oe.cd/quantum-ecosystem

epo.org/quantum

doi.org/10.65216/20251217-0001

observatory@epo.org

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LinkedIn Observatory newsletter

PATENTABILITY ISSUES IN QUANTUM COMPUTING

SIMON THEISSING | PATENT EXAMINER IN THE FIELD OF CORE AI AND QUANTUM COMPUTING | EPO | 20 MARCH 2026

Security classification: Public

QC → MATHEMATICAL METHOD

- Simply put, QC is about using quantum mechanical effects for accomplishing a computation
- For instance, quantum tunnelling (= quantum mechanical effect) may be used for computing the ground state of a system (= computation)
- The computation usually involves mathematical operations and can therefore be interpreted as a mathematical method within the legal framework of the EPC
- This interpretation is of particular importance for assessing the patentability of a QC invention

Security classification: Public

TWO-HURDLE APPROACH

- 1st hurdle (“eligibility”):

  Mathematical methods, when claimed as such, are excluded from patentability (Art. 52(b) and (c) EPC)

- 2nd hurdle (“inventive step”):

  It is not sufficient that the mathematical method comprises novel features

  The novel features need to make a non-obvious contribution to the technical character of the claimed invention (EPC Guidelines for Examination, G-VII, 5.4, (iii)(b))

Security classification: Public

THE FIRST HURDLE (1/3)

A method for solving an optimization problem comprising the steps of

a) initializing a system of qubits in a ground state of an initial Hamiltonian,

b) slowly evolving the system's Hamiltonian from the initial Hamiltonian to a problem Hamiltonian that encodes a solution to the optimization problem, and

c) measuring the qubits' states.

- First hurdle is **not passed**, because the claimed method can be interpreted as a mathematical method *as such*:
  - The steps a) to c) specify mathematical operations
  - No technical means are used for performing any of the method steps a) to c)

Security classification: Public

THE FIRST HURDLE (2/3)

A method for solving an optimization problem comprising the steps of

a) initializing a system of **physical** qubits in a ground state of an initial Hamiltonian,

b) slowly evolving the system's Hamiltonian from the initial Hamiltonian to a problem Hamiltonian that encodes a solution to the optimization problem, and

c) measuring the qubits' states.

- First hurdle is **now passed**, because the claimed method can no longer be interpreted as a mathematical method as such:
  - The steps a) to c) do still specify mathematical operations
  - However, the step a) now makes use of technical means in the form of physical qubits

Security classification: Public

THE FIRST HURDLE (3/3)

- First hurdle can be easily overcome
- Inserting “computer-implemented” in the claim’s wording might be one way of doing so but it likely is not the only one
- Many QC terms that sound very technical at first glance are not:
  - Qubit: mathematical model of an idealized two-state quantum mechanical system
  - Qubit register: logical grouping of qubits
  - Quantum gate, measurement: mathematical operations
  - Quantum circuit: mathematical model of computation
  - …

Security classification: Public

THE SECOND HURDLE (1/3)

- The inventiveness (Art. 56 EPC) of a QC invention is assessed like all other inventions using the EPO's structured problem-solution approach
- The problem-solution approach is outlined in the section G-VII, 5 of the EPC Guidelines for Ex.
- If an inventive step is to be acknowledged based on a feature of the invention, then this feature not only needs to be novel (Art. 54 EPC) over the closest prior art but it also needs to make a non-obvious contribution to the technical character of the claimed invention
- The novel feature can be a technical (e.g., a particular geometry of a physical qubit) or a non-technical feature (e.g., a particular quantum gate)
- The EPC Guidelines for Examination provide guidance for determining if a technical contribution is present, notably in the sections G-II, 3.3 to 3.7

Security classification: Public

THE SECOND HURDLE (2/3)

- For mathematical methods, guidance can be found in the section G-II, 3.3 and its subsections
- If the QC invention is a mathematical method, then the technical contribution can relate to

a) the method's specific technical implementation (e.g., using a hybrid classical-quantum computer setting) and/or

b) a technical application to which the method is functionally limited (e.g., to the analysis of digital images)

- Caution:
  - A specific technical implementation is not enough
  - The mathematical method also needs to be particularly adapted thereto

Security classification: Public

THE SECOND HURDLE (3/3)

- Of course, not all QC inventions are mathematical methods or only to some limited extent
- For instance, the QC invention could relate to a particular geometry of a physical qubit coupler or to a quantum compiler
- Regardless of this, every invention needs to pass the two hurdles, “eligibility” and “inventive step”
- The first hurdle does not only prevent mathematical methods when claimed *as such* from being patented but notably also computer programs when being claimed *as such* (Art. 52(2)(c) and (3) EPC)

Security classification: Public

QC → CII (1/3)

- Many if not most QC inventions are computer-implemented inventions (CII)
- There is a dedicated section in the EPC Guidelines for Examination (F-IV, 3.9) providing guidance for drafting respective claims
- Claims directed to CII should define all the features which are essential for the technical effect of the process which the computer program is intended to carry out when it is run

Security classification: Public

QC → CII (2/3)

A method **implemented by a quantum computer** for solving an optimization problem comprising the steps of

a) computing a schedule,

b) initializing a system of qubits in a ground state of an initial Hamiltonian,

c) slowly evolving**, using the schedule,** the system's Hamiltonian from the initial Hamiltonian to a problem Hamiltonian that encodes a solution to the optimization problem, and

d) measuring the qubits' states.

- Objection under Art. 84 EPC could be raised if a) cannot be performed by a quantum computer or if the description does not explain how a) can be performed using a quantum computer

Security classification: Public

QC → CII (3/3)

- It may therefore be necessary to indicate in the claim, which step is performed by which device:

A method ~~**implemented by a quantum computer**~~ for solving an optimization problem comprising the steps of

a) computing a schedule,

b) initializing a system of qubits in a ground state of an initial Hamiltonian,

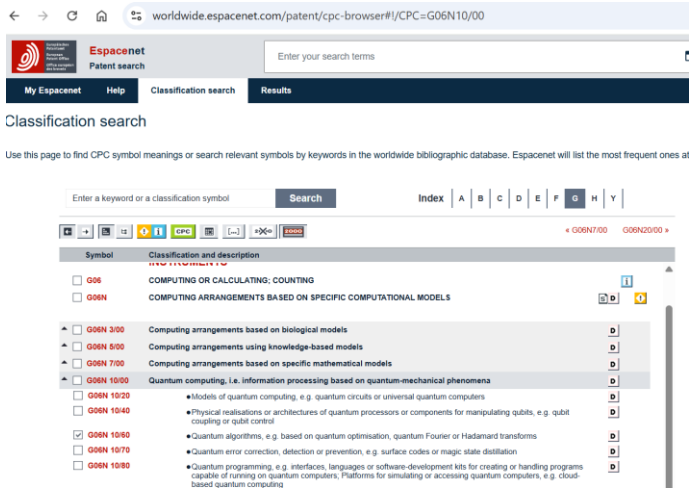
c) slowly evolving, using the schedule, the system's Hamiltonian from the initial Hamiltonian to a problem Hamiltonian that encodes a solution to the optimization problem, and

d) measuring the qubits' states**, wherein a) is performed by a classical computer and b) to d) are performed by a quantum computer comprising the system of qubits and in communication with the classical computer**.

Security classification: Public

PRACTICAL ADVICE

- Look up the claim formulations of granted European patent applications in the relevant field
- For instance, with Espacenet using its free text search or its classification search functionality:



Security classification: Public

SUMMARY

- QC inventions like all other inventions need to pass the two hurdles, “eligibility” and “inventive step”
- The second hurdle is assessed using the EPO’s structured problem-solution approach
- Some QC expressions may sound technical at first glance, although they are not
- If the QC invention relates to a mathematical method, then care should be taken to specify all essential features in the claims
- The EPC Guidelines for Examination as well as the claims of granted European patents can provide valuable guidance for drafting claims that are to protect your QC invention

Security classification: Public

Patenting Quantum Simulation: Strategies from the FoQaCiA Project

Cihan Okay

Bilkent University

Protect your IP: Patents and quantum technologies – March 2026

Outline

1. **The science** — classical simulation of quantum circuits (FoQaCiA project)
2. **Two patents, two filing strategies** — navigating IP across jurisdictions
3. **The bigger picture** — from research to innovation

Part 1

The science

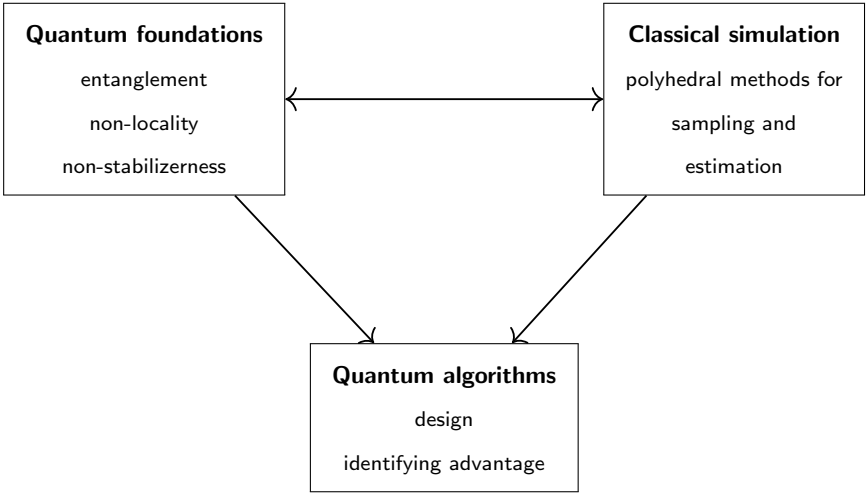
The FoQaCiA project

Foundations of Quantum Computational Advantage Oct 2022 – Mar 2026

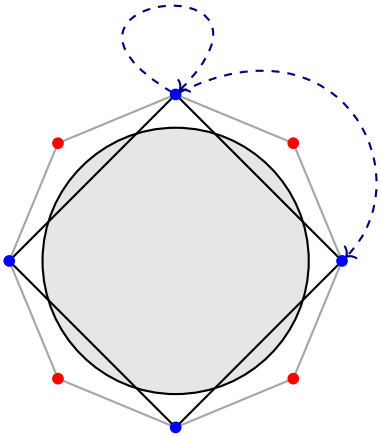
- EU Horizon Europe/Canada consortium, 11 partner institutions
- Central question: *Where does quantum computational advantage come from?*
- My role: Leading **Work Package 2** — classical simulation of quantum circuits

The simulation work in WP2 produced two patentable inventions.

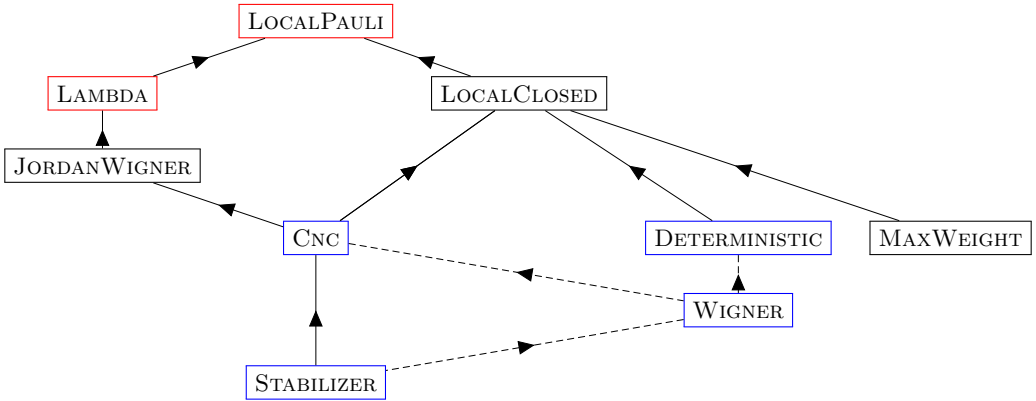
INL (Portugal), Stockholm U (Sweden), U Sevilla & U Granada (Spain), Bilkent U (Turkey), UCL (UK), U Gdańsk (Poland), UBC, SFU, U Ottawa & U Waterloo (Canada)


Quantum foundations
entanglement
non-locality
non-stabilizerness
Classical simulation
polyhedral methods for
sampling and
estimation
Quantum algorithms
design
identifying advantage

How polyhedral simulation works



- Disk: quantum state space
- Blue vertices (diamond): classical keys for an **efficient estimator** (e.g. CNC) — covers part of the state space
- Red vertices (octagon): additional keys for a **universal sampler** (e.g. LAMBDA, LOCALPAULI) — contains the *entire* state space
- Dashed arrows: probabilistic update rules under quantum processes



Blue: efficient estimation Red: universal sampling

The key generation bottleneck

- LAMBDA can simulate **any quantum circuit**
- But: generating classical keys (vertices of the polytope) is a **computational bottleneck**
- Two new inventions:
  - LOCALPAULI: a new simulator based on *local* stabilizer formalism — architecturally different approach to key generation
  - CNC: an efficient tableau method that extends the stabilizer tableau (textbook) simulation

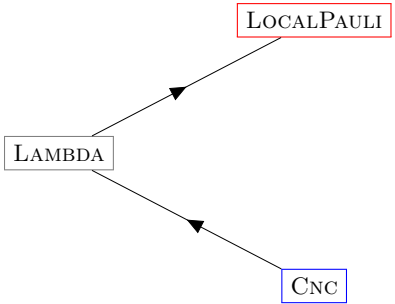
Part 2

Two patents, two filing strategies

The IP landscape

- The LAMBDA simulator was developed at UBC before FoQaCiA began
  - US patent application: **US 17/995,068**
  - Filed via PCT, but the **European phase was withdrawn**
  - Result: LAMBDA patent is **pending only in the US**
- This shaped our filing strategy for the new inventions:
  - In the US, we needed to establish our own position relative to LAMBDA
  - In Europe, no corresponding LAMBDA patent remains in force — the freedom-to-operate picture is more favorable

From background to foreground



new architecture for key generation

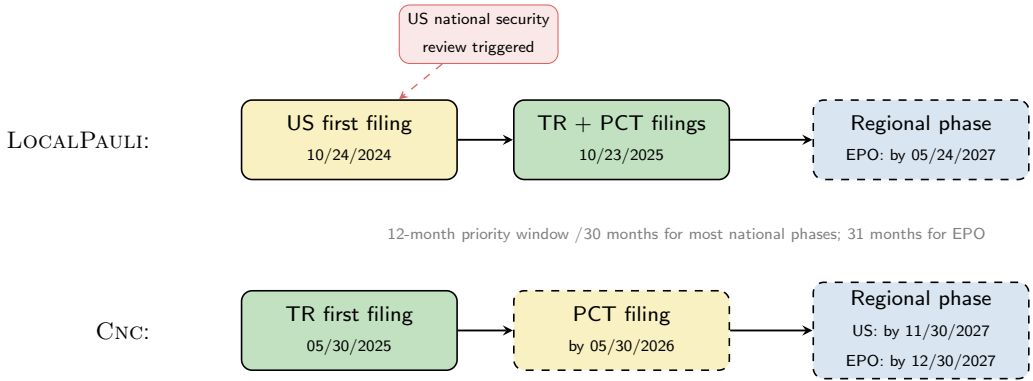
background IP (UBC)

efficient tableau method for simulation

Two inventions from WP2

	LocalPauli	Cnc
What	New method for generating classical keys via local stabilizer formalism	Efficient tableau simulation extending stabilizer tableau
Model	Measurement-based QC	Magic state QC
Owner	Bilkent University	Bilkent University
Filing strategy	US-first	Turkey-first

Filing strategies at a glance



PCT preserves options for later national/regional entry; for Europe, this means EPO regional phase entry, followed by validation after grant.

Practical filing and phase-entry steps are handled by Bilkent TTO.

LocalPauli

- Filed in the US first: **US 18/925,447** (Oct 24, 2024)
- Why US-first?
  - The existing LAMBDA patent application (UBC, US 17/995,068) is active **only in the US** — EU phase was withdrawn
  - Establishing an early US position was strategically important for freedom to operate
- Extended to Turkey and PCT within 12 months:
  - TR 2025/015846 (October 23, 2025)
  - PCT/TR2025/051341 (October 23, 2025)

Selected for EU innovation radar

The US national security review

- The US filing triggered a national security review under **35 U.S.C. §181**
  - Extremely rare in academic settings
  - Indicates potential dual-use relevance of quantum simulation technology
- Practical consequences:
  - Publication and foreign filing restricted until review completes
  - Created uncertainty around PCT timing (priority document and DAS code issued last month)
  - Required notification to the European Commission in light of Horizon Europe obligations (timely protection and reporting)

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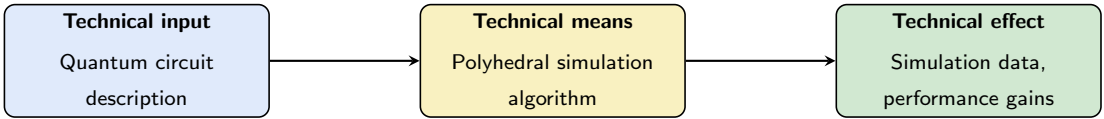
35 U.S.C. §181: If disclosure of an invention would be detrimental to national security, the Commissioner of Patents shall order the invention kept secret and withhold publication of the application or grant of the patent.

Cnc

- Filed in Turkey first: **TR 2025/007146** (May 30, 2025)
- Why Turkey-first?
  - Avoids potential foreign-filing restrictions (e.g. §181)
  - Lower initial filing cost
  - Secures a priority date while preparing the international filing
- PCT filing planned within the 12-month priority window (by May 2026)
- Our patent attorney included **two dedicated CII claims** for European protection:
  - A *computer program product* claim
  - A *computer-readable storage medium* claim

Computer-implemented inventions

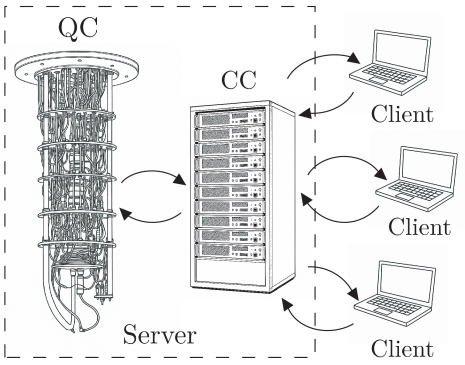


- In Europe, software "as such" is not patentable (Art. 52 EPC)
- Our claims describe a method that receives a description of a quantum system, represents it using structured mathematical objects, and generates computational keys that drive the simulation — a concrete technical process with measurable performance gains, not an abstract algorithm

Part 3

The bigger picture

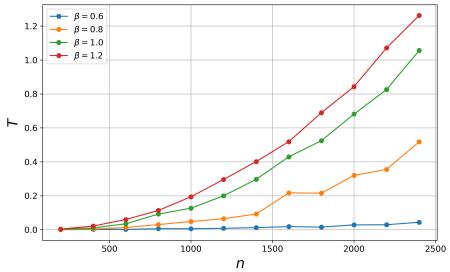
The hybrid architecture

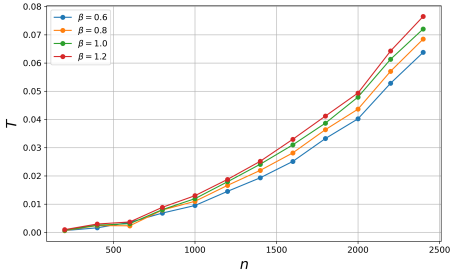


- Clients submit quantum circuits to a classical computer (CC)
- CC extracts a size parameter and forwards it to the quantum computer (QC)
- QC solves an **optimization problem** and returns a classical key
- CC completes the simulation using the key

This architecture naturally supports a cloud-based simulation service (SaaS).

Current stage: Open source implementation





The CNC simulator has been implemented and is publicly available on GitHub:

`https://github.com/BilQCT/CNCSim`

Why patent protection matters

- Classical keys are **licensable assets** — once generated, they can be reused across many simulations
- The SaaS model monetises **access** rather than distributing code
- IP protection enables:
  - Tiered access (academic free tier, research tier, enterprise tier)
  - Spin-off opportunities from Bilkent University
  - Licensing arrangements with quantum hardware and software vendors
- EU Horizon Results Booster (IAM & G2M service) helped clarify the IP landscape and exploitation strategy

Take aways

Lessons from two filing routes

	US-first	**Turkey-first**
Advantage	Early priority in the largest patent market; strong positioning relative to existing LAMBDA patent application	Lower cost; avoids §181 risk; preserves flexibility
Trade-off	National security review delayed foreign filing and publication	Domestic filing alone does not protect in major markets
CII strategy	Claims adapted for US patent standards	Additional CII claims crafted for EPO requirements
Key insight	Filing strategy shaped by competitive landscape and regulatory risk	

Summary

1. FoQaCiA's classical simulation research led to two patentable inventions

2. Two different filing strategies — US-first and Turkey-first — each with distinct advantages and trade-offs

3. These patents protect the foundations of a hybrid quantum-classical simulation platform with concrete commercial potential

Thank you!

LEARNING RESOURCES

JÜRGEN MÜHL, EUROPEAN PATENT ACADEMY, 20 MARCH 2026

THE EUROPEAN PATENT ACADEMY https://www.epo.org/en/learning

- Patent-related education opportunities to stakeholders in Europe and beyond.
- Wide range of audiences: examiners and national patent office staff, patent attorneys and professionals, inventors, businesses, universities, technology transfer centres and anyone interested in patent-related topics
- Areas covered: patent granting, patent information, technology transfer and patent litigation and enforcement.
- Self-paced training courses and learning events.

OUR OFFER

Supporting IP awareness and promoting IP education

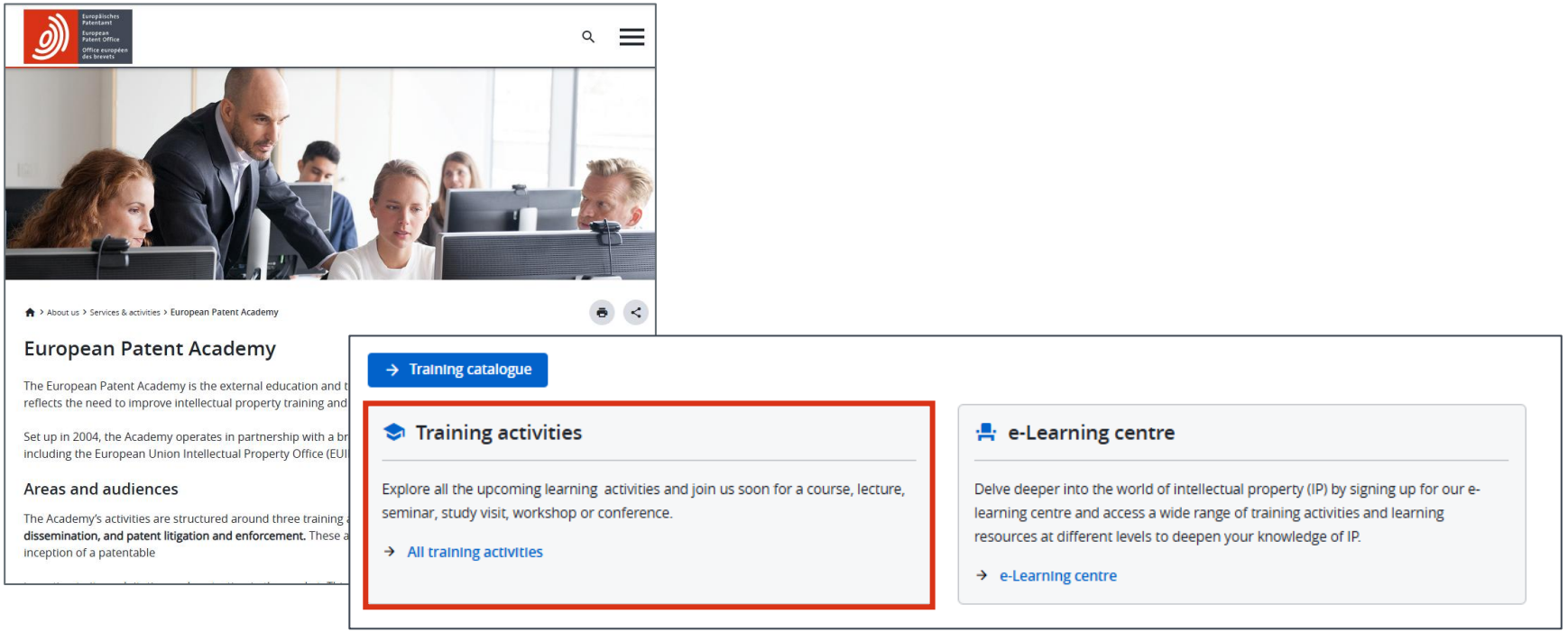
Learning events

Self-paced training

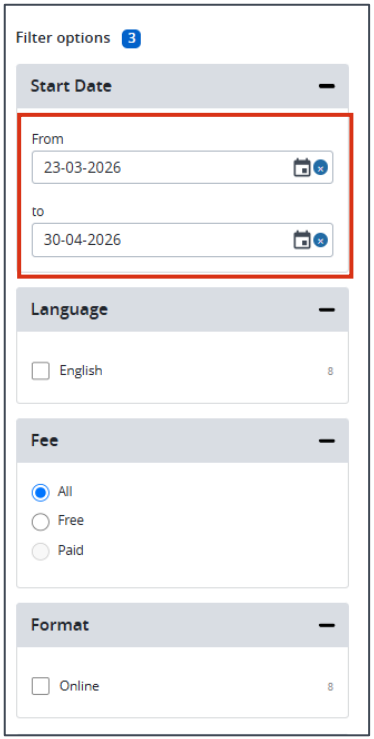
MIPEF – Modular Intellectual Property Education Framework”

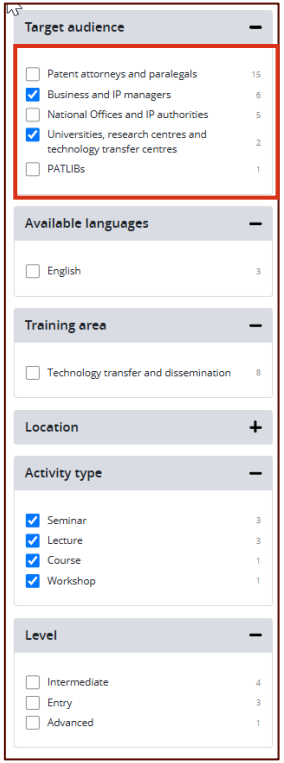
Inspiring inventors talk series

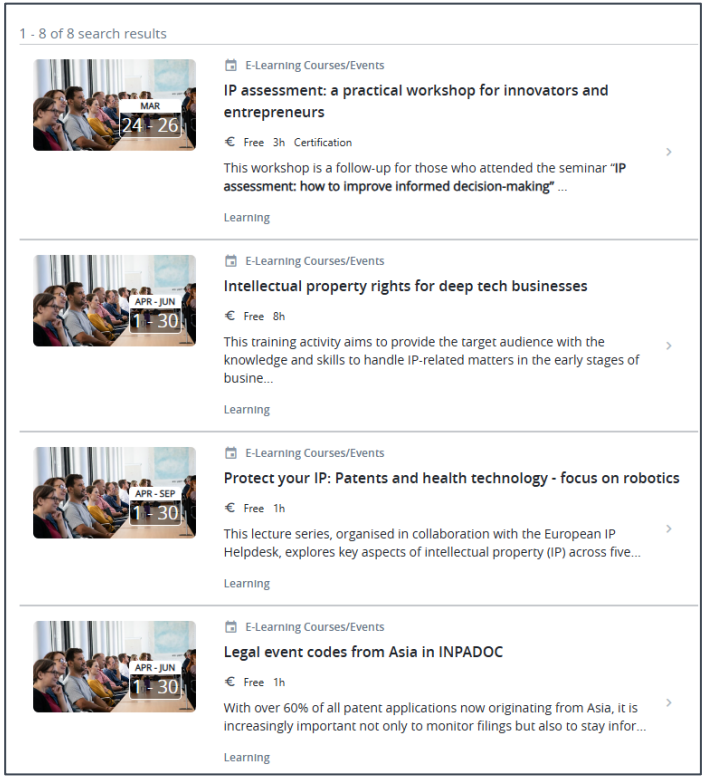
LEARNING EVENTS – SEARCHING FOR UPCOMING SESSIONS



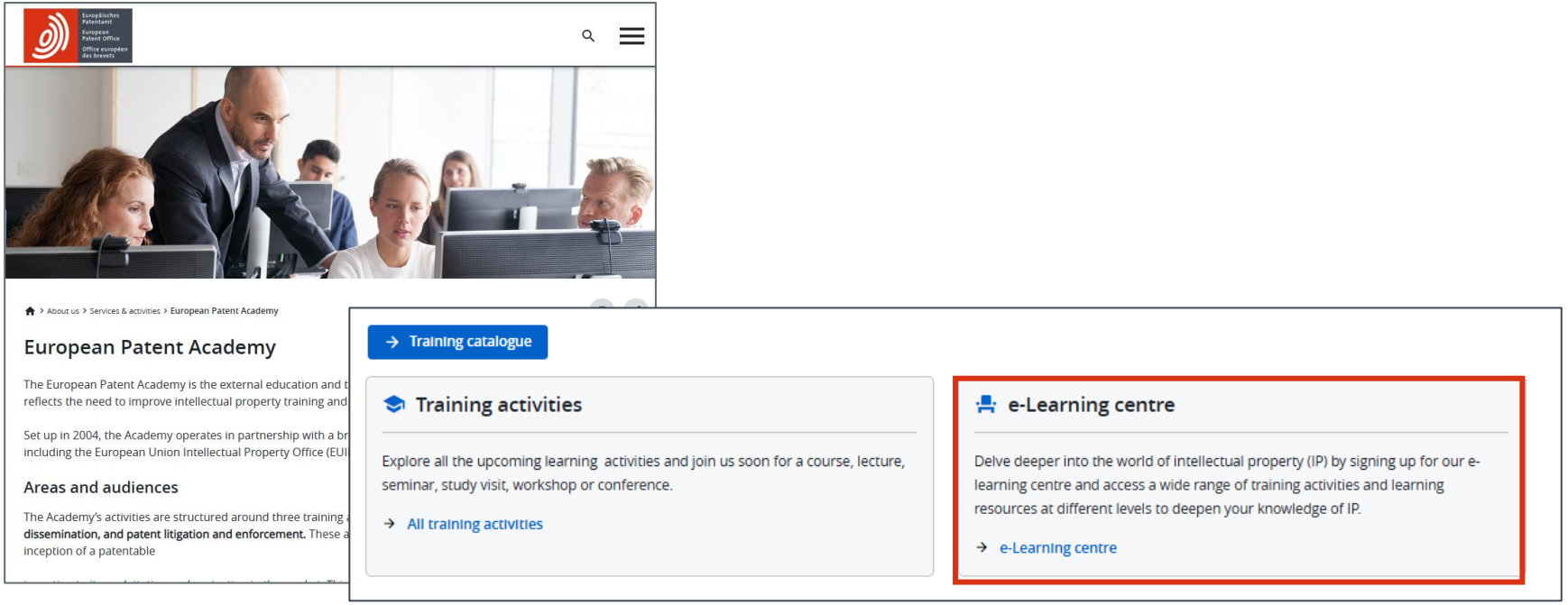
LEARNING EVENTS – SEARCHING FOR UPCOMING SESSIONS







ON-LINE LEARNING RESOURCES: SELF-PACED TRAINING



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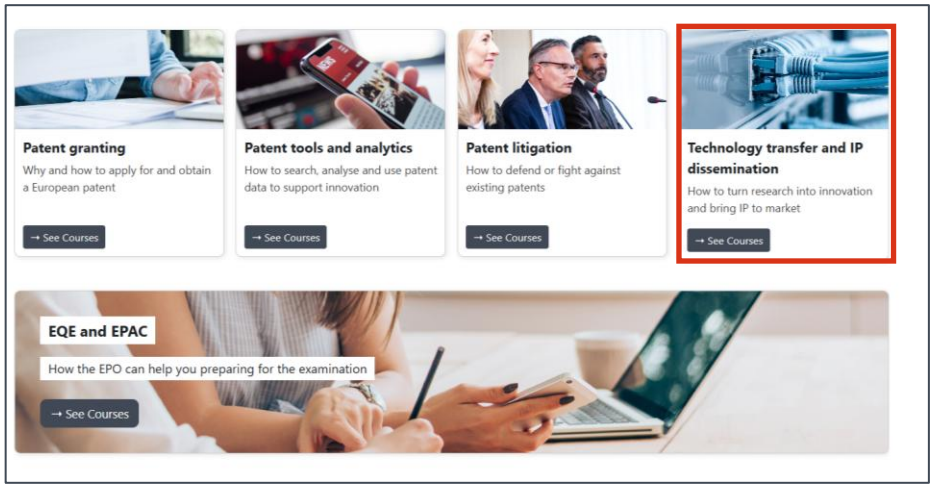


IP Assessment: How to improve informed decision-making | BS20-2026

This training focuses on the IP-related challenges and issues that arise during systematic assessment of technologies and patents. It offers effective strategies and introduces the tool, IPscore, that you can use to evaluate your research projects and innovations. It will give you a clearer picture of their commercialization potential and support strategic decision-making by helping you set priorities that save time and resources. The program is designed for R&D project leaders, entrepreneurs, and intrapreneurs; intellectual capital managers in small and medium-sized enterprises (SMEs), start-ups, technology transfer offices and investors.

EPO search tools to improve business decisions I BS01-2026

A seminar demonstrating how to effectively use the EPO's free search tools and the additional features offered by more advanced tools, that are of particular use to business decision makers.

Main subject matter:

- Using Espacenet to filter and analyse search results
- Using PATSTAT for more advanced statistics

Train the Trainer Espacenet | NW02-2025

This course enables you to plan and implement courses on Espacenet and other EPO search tools quickly and in a resource-efficient way. It is based on case studies, two of which you will look at as examples and another three on which you will actually work in hands-on sessions and transform by following the training approach.

How to make best use of the unitary patent system | BS03-2025

This training focuses on the advantages offered by the Unitary Patent system. Exploring how businesses can harness these benefits to protect and monetise their intellectual property paves the way for subsequent trainings featuring selected case studies from different industries. This training may be also of special interest for PATLIB centres.

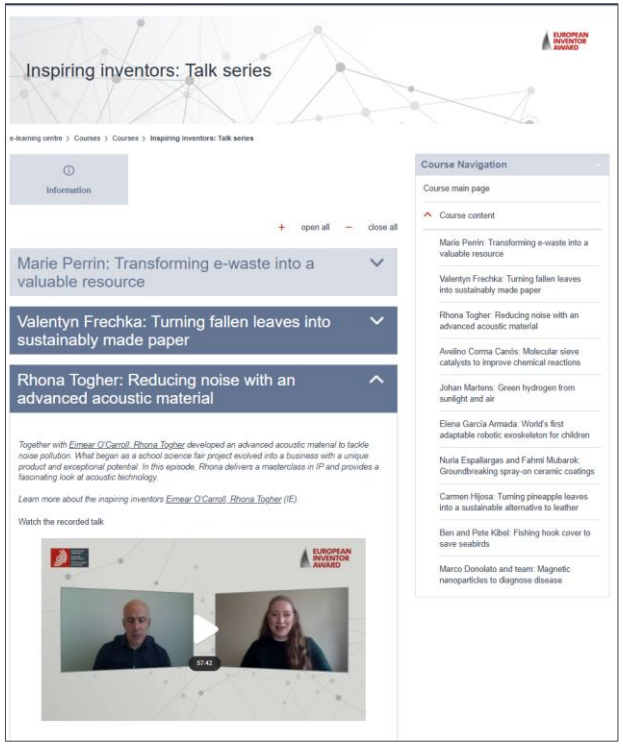
Train the Trainer Espacenet | NW01-2026

This course enables you to plan and implement courses on Espacenet and other EPO search tools quickly and in a resource-efficient way. It is based on case studies, two of which you will look at as examples and another three on which you will actually work in hands-on sessions and transform by following the training approach.

Patenting Innovation (RTTP-recognised) | NV07-2025

Patents are a powerful asset in the toolbox of a technology transfer professional. This two-day interactive course covers how innovative ideas are protected within the patenting system.

INSPIRING INVENTORS TALK SERIES



European Inventor Award finalists share their success stories on patenting and commercialising their inventions

[Course: Inspiring inventors: Talk series | e-learning centre]

Modular IP Education Framework (MIPEF)

Benefits

- Enrich your curriculum with a free of charge and high-quality IP course co-labelled with the European Patent Office
- Integrate a flexible, ready-made offer tailored to Master's and PhD programmes
- Adapt content easily to your academic calendar and specific course needs
- Benefit from expert-led online sessions and engaging, modular formats
- Inspire students with real-world case studies featuring European Inventor Award finalists and winners
- Provide students with the opportunity to earn an EPO certificate and ECTS credits
- Increase career opportunities for students through IP education

MIPEF timeline

- Courses are being offered twice a year with an autumn and a spring edition

Create – Protect – Innovate: Bringing ideas to market

Part 1: Entry level

Module I
Introduction to IP
Module II
Patent essentials
Module III
Introduction to patent information
Module IV
Patent information in practice
Module V
Developing an IP strategy

- Syllabus Entry
- Course Description Entry
- Overview of skills and learning outcomes

Part 2: Advanced level

Module I
Grant of patents
Module II
Enforcement of patents
Module III
Scouting and assessment of technology
Module IV
IP commercialisation
Module V
Use of IPRs

- Syllabus Advanced
- Course Description Advanced

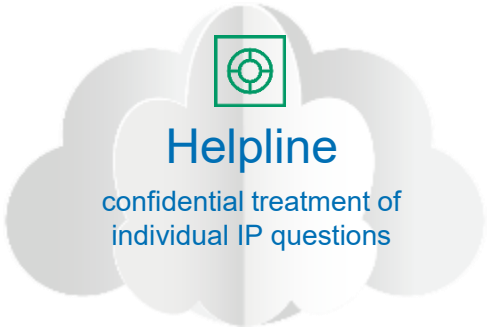
mipef@epo.org

Modular IP Education Framework (website)

European IP Helpdesk

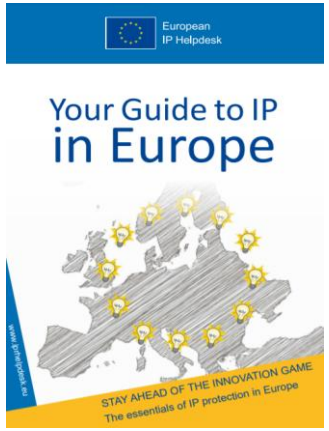
- Service initiative of the European Commission
- Addressing **current and potential beneficiaries of EU-funded projects, researchers and EU SMEs**
- Free-of-charge first-line support on intellectual property (IP)
- Hands-on IP and innovation management support
- International pool of IP experts from various thematic fields
- Unique cooperation scheme with the Enterprise Europe Network: 43 ambassadors from 26 EU countries

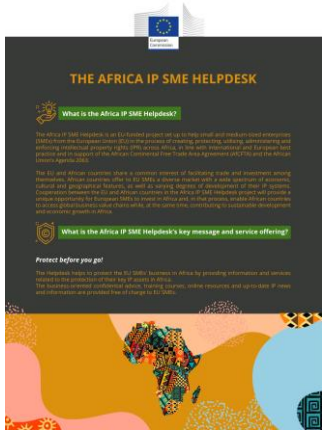
ec.europa.eu/ip-helpdesk



The EC IP Helpdesks

EC IP (SME) Helpdesk Hub – Gateway to Information





- E-learning modules & more
- Guides / Topic, country, sector-specific factsheets / Infographics
- Case studies

Ambassador Scheme

- **Cooperation scheme** with the Enterprise Europe Network (EEN): 43 ambassadors – 26 countries
- **Building IP capacities** among European SMEs
- **Overcoming language barriers**
- Making the topic **more accessible**
- Exchange and feedback from ambassadors on **needs of SMEs**
- Local **awareness** and **training events**

Upcoming events

03 MAR 2026
Training and workshops
EU - Webinar: IP in EU funded projects with a special focus on MSCA
Live streaming available

05 MAR 2026
Training and workshops
EU - Webinar: IP Assessment
Live streaming available

10 MAR 2026
Training and workshops
EU - Webinar: IP & Open Science
Live streaming available

12 MAR 2026
Training and workshops
EU - Webinar: IPR and Software
Live streaming available

17 MAR 2026
Training and workshops
EU - Webinar: IP Commercialisation and Licensing
Live streaming available

19 MAR 2026
Training and workshops
EU - Webinar & Horizon Results Platform: Open Science and IPR

20 MAR 2026
Training and workshops
EU - Webinar EPO Coop: Protect your IP in quantum technologies: Focus on quantum computing
Live streaming available

24 MAR 2026
Training and workshops
EU - Webinar: IP for Future and Emerging Technologies
Live streaming available

09 APR 2026
Training and workshops
EU - Webinar:IP Commercialisation & Licensing - Advanced
Live streaming available

22 APR 2026
Training and workshops
EU - Webinar & Horizon Results Platform: Artificial Intelligence
Live streaming available

23 APR 2026
Training and workshops
EU - Webinar: Freedom to Operate
Live streaming available

12 MAY 2026
Training and workshops
EU - Webinar: IP and Artificial Intelligence - Advanced
Live streaming available

19 MAY 2026
Training and workshops
EU - Webinar: Finding Patents
Live streaming available

25 MAY 2026
Training and workshops
EU - Webinar : Unitary Patent
Live streaming available

Thank you!

- www.ec.europa.eu/ip-helpdesk

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- training@iprhelpdesk.eu

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- LinkedIn /european-ipr-helpdesk