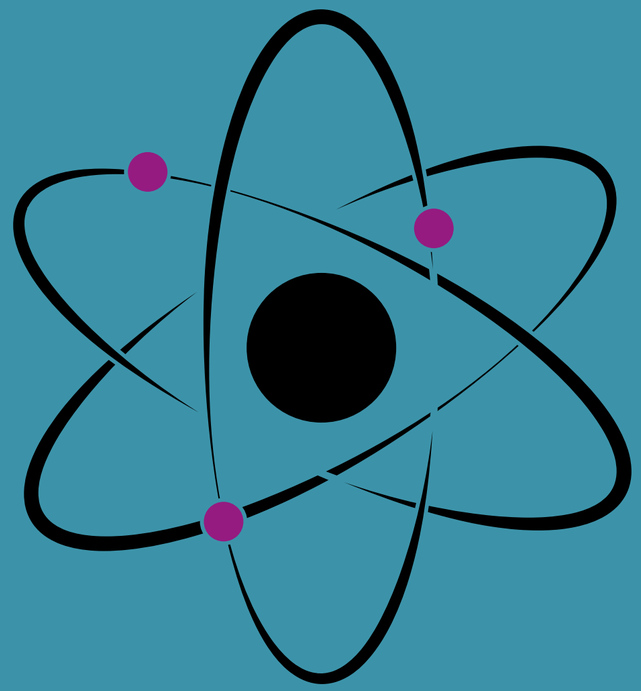
WEBINAR + Q&A

IP IN QUANTUM TECHNOLOGIES: EUROPE'S STARTUP EDGE IN GLOBAL INNOVATION



Speakers: Jatta Toro, Eren Kocbey, and Yann Ménière

Host: Axel Ferrazzini

What do we do?

Non-Profit Activities

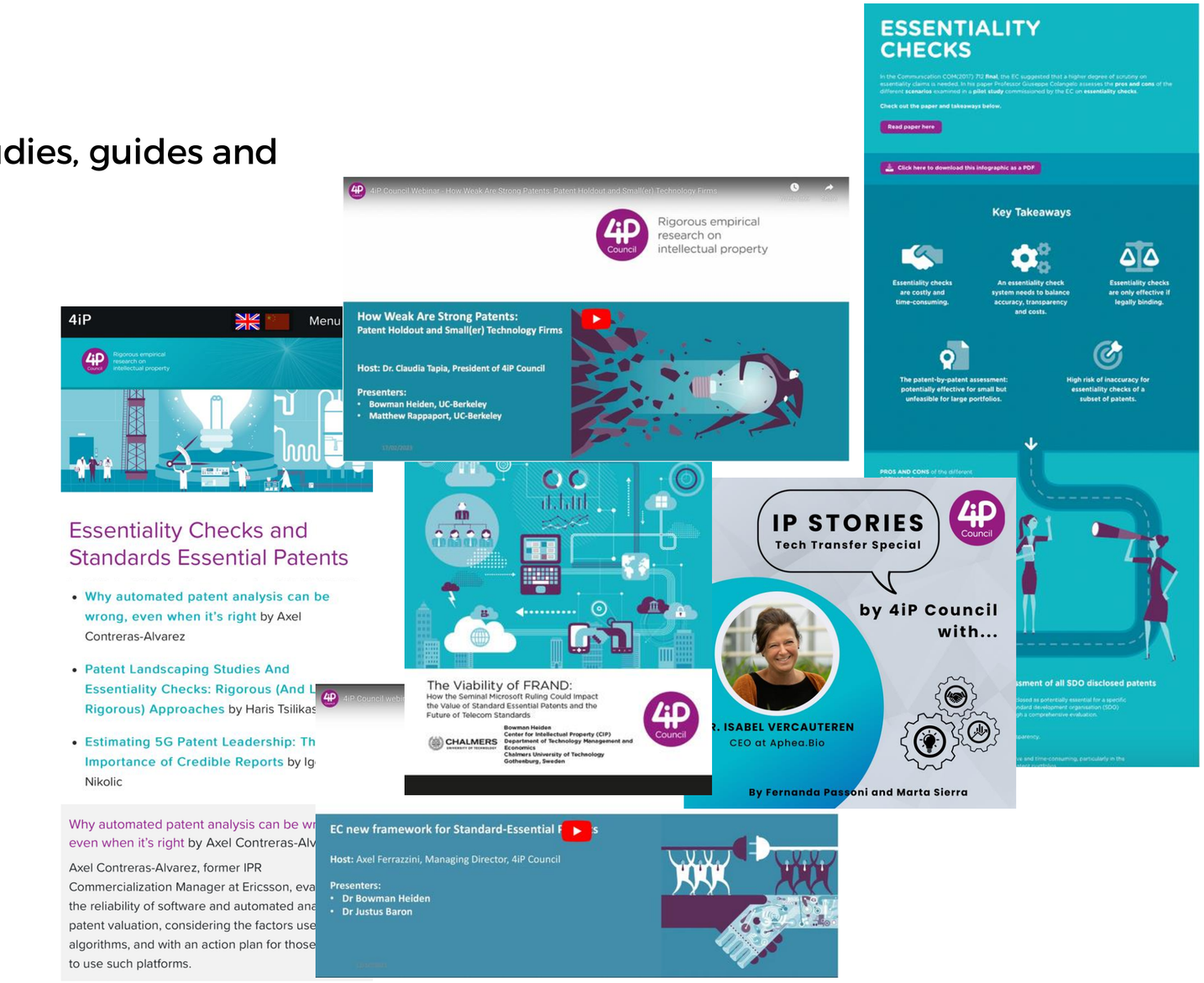
High Quality Academic Research

Education

Promotion Innovative SMEs

Find our free materials at www.4ipcouncil.eu

1. Summaries of papers, studies, guides and case law
2. Interactive graphics
3. IP Stories Podcast
4. Live Webinars with Q&A



IOT & Cellular Standards

Made simple

Explore IoT and Cellular Standards

- **What are IoT and Cellular Standards?**
- Benefits of cellular standards
- IoT sectors enhanced by cellular standards
- FRAND: Cycle of Innovation
- How are cellular standards developed?

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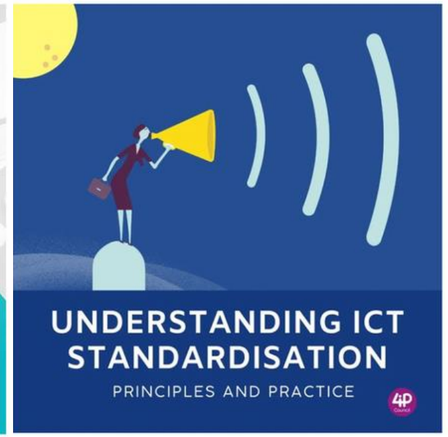


IP in Quantum Technologies: Europe’s Startup Edge in Global Innovation

YANN MÉNIÈRE

JATTA (RANTALA) TORO

EREN KOCBEY

PATENTING WITH COLLABORATION: A QUANTUM SOLUTION FOR PROFITABLE COMMERCIALISATION

YANN MÉNIÈRE | CHIEF ECONOMIST | EUROPEAN PATENT OFFICE | 26TH JUNE 2024

QC IN EUROPE

- QC patenting is experiencing remarkable growth.
- Europe's QC sector is in a build-up phase, undergoing an intense process of technology transfer from university to industry.
- Patents play a pivotal role in facilitating such process.
- The European patent system offers a robust legal framework for patenting QC.

QUANTUM COMPUTING (QC) PATENTING

Inventions in QC are patentable when directed to a method implemented on a quantum computer.

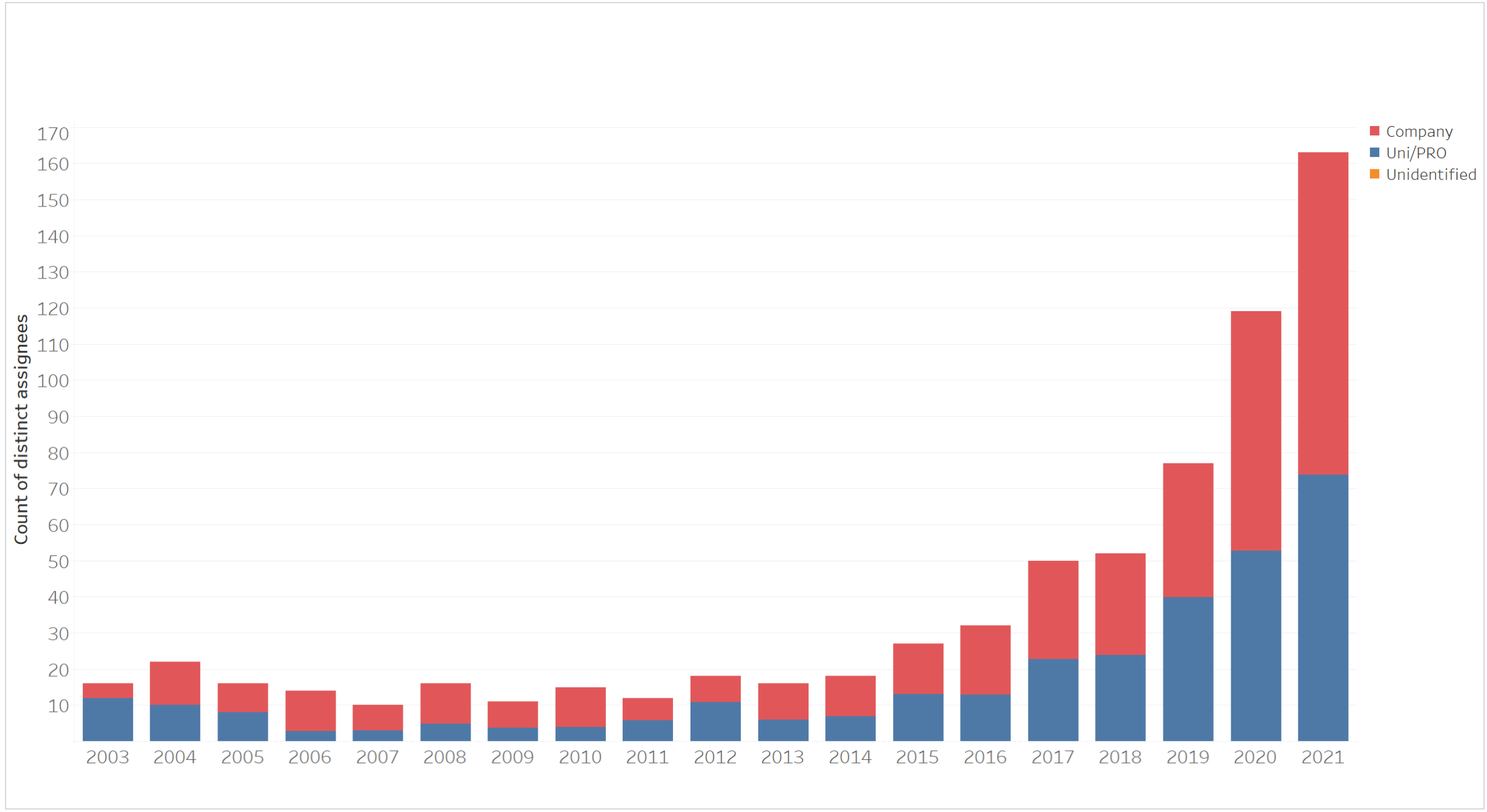
The EPO applies an approach established for other computer-implemented inventions (CII).

- Consistent and predictable approach to examining CII ("two-hurdles"; G1/19).
  - Analogous application of the EPO Guidelines on CII to QC.
- Quantum circuits/algorithms are abstract/mathematical → excluded from patentability if claimed as such, but
- The exclusion does not apply to applications & implementations with technical character → novelty / inventive step can be examined.

Unitary Patent provides a cost-effective system for protection in currently 17 participating member states https://www.epo.org/en/applying/european/unitary

WHO PATENTS IN QUANTUM COMPUTING?

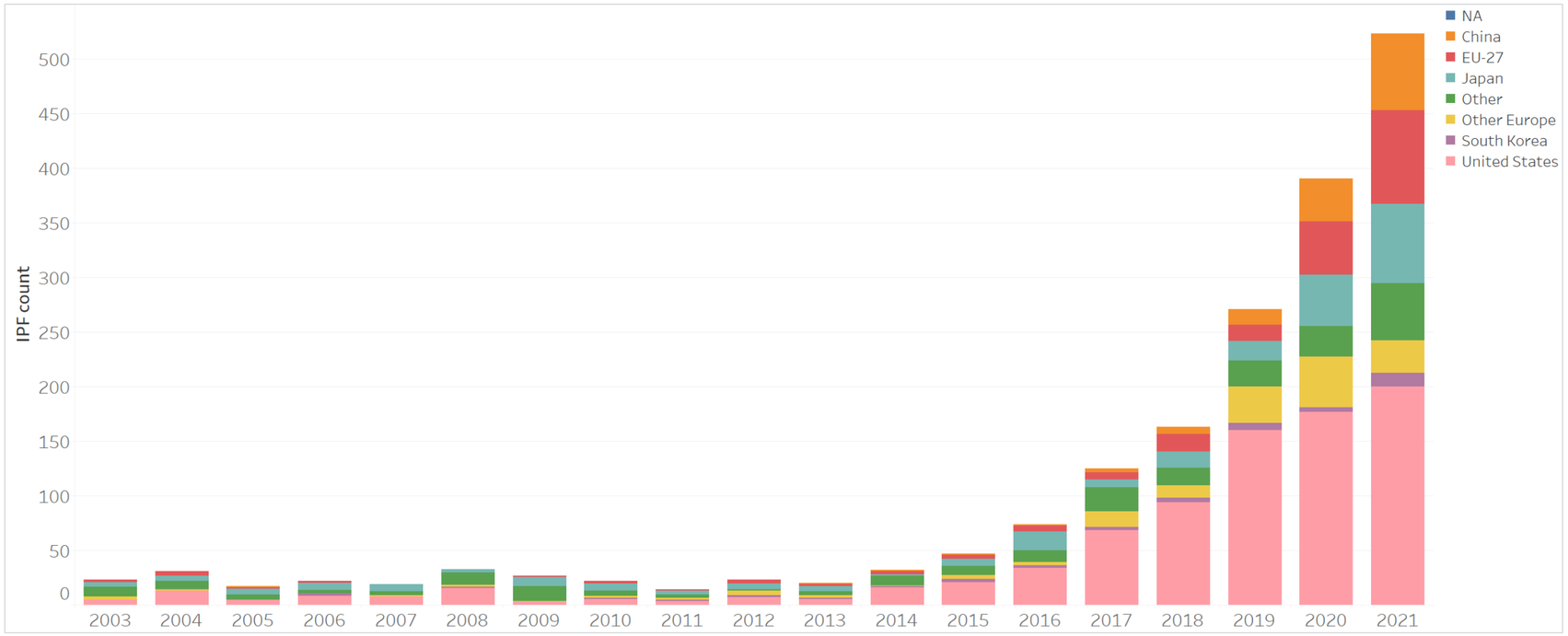
- Companies and universities are the primary actors in quantum computing innovation.
- Both sectors account for approximately half of all patentees, reflecting a balanced participation.



Note: Number of distinct patent assignees in quantum computing by earliest publication year and type of assignee.

US IN THE LEAD

- **EU27, Japan and China** on par with strong growth in recent years



Note: Count of international patent families (IPFs) in quantum computing by earliest publication year and assignee location.

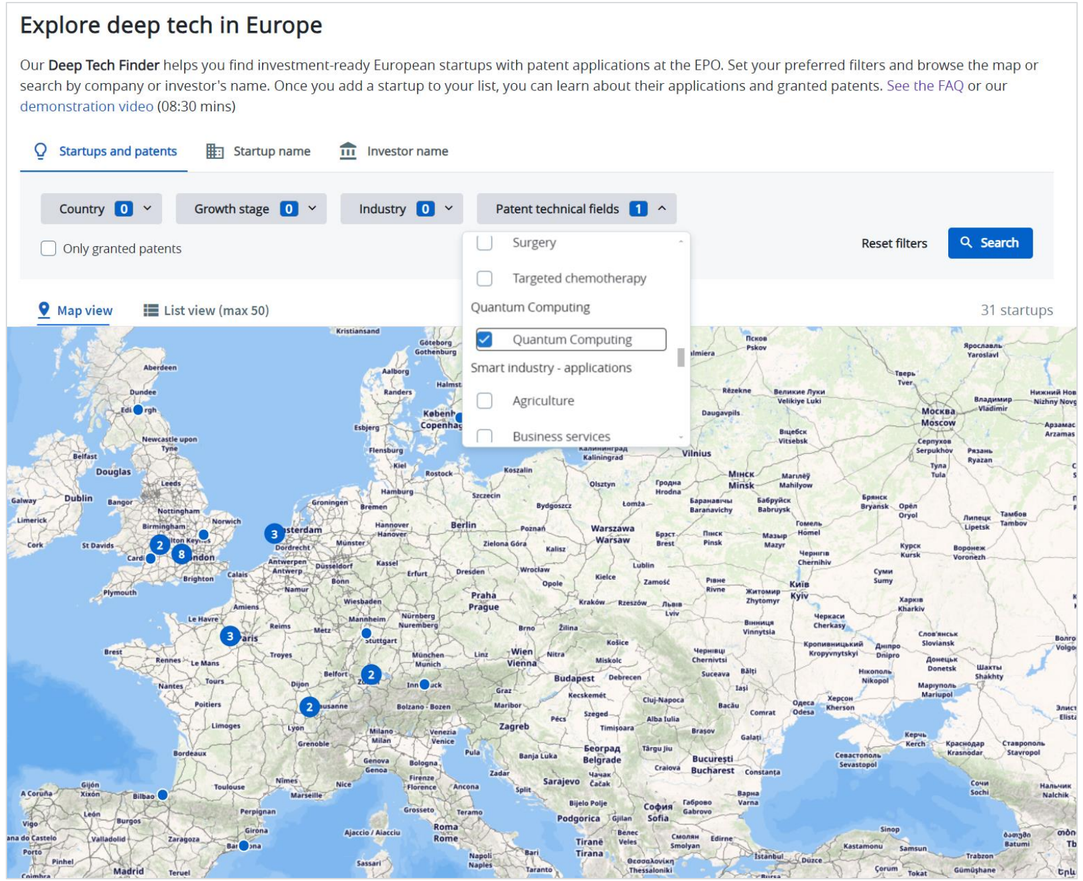
TOP-50 PATENTEES

- The top-10 patentees are corporations located in the US and Japan.
- Most top patentees in Europe are universities and public research centres, and startups

Note: ranking of top patentees in quantum computing. Circle size is proportional to the number of IPFs in quantum computing per assignee. Colours reflect assignee locations.

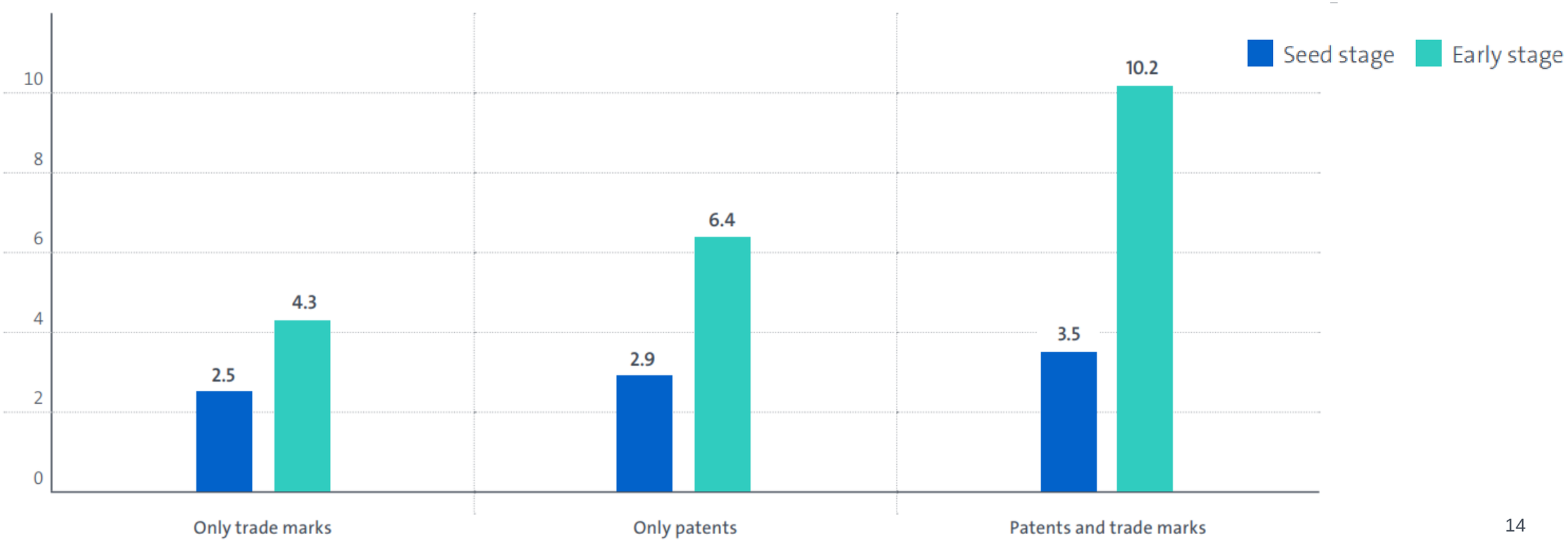
IDENTIFYING PATENTING STARTUPS IN QUANTUM COMPUTING

- 31 startups with European patent applications in quantum computing.
- Accounting for a total of 220 patents.
- Located mostly in France and the UK



IPR APPLICATIONS ARE A SIGNAL TO INVESTORS

Increase in odds of VC funding for startups with prior IPR applications



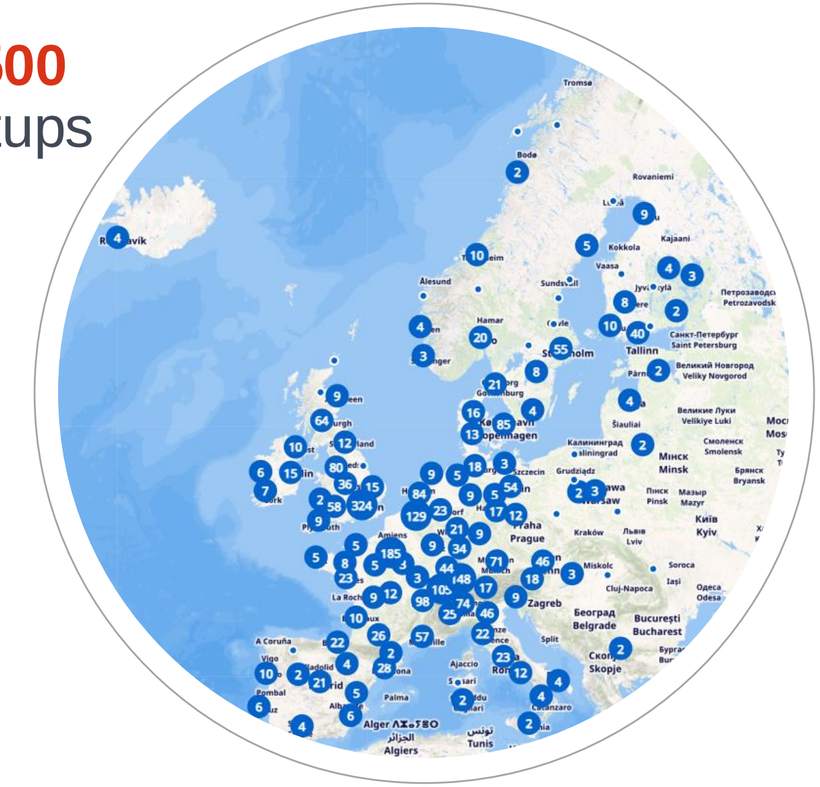
Deep Tech Finder

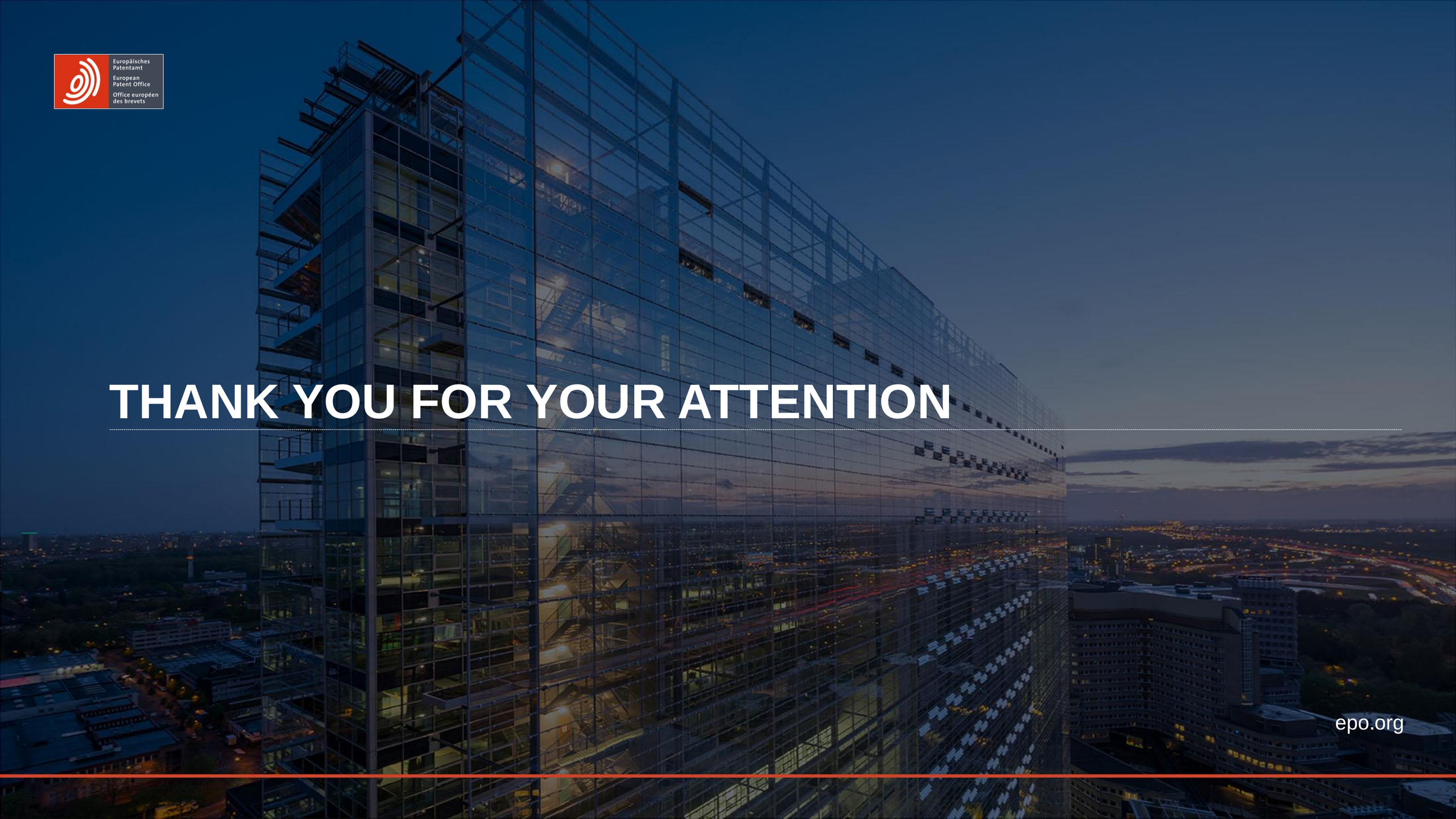
Exploring deep technology in Europe

New free digital tool

- **51 tech fields** — Localise startups in their **technological fields**
- **32 ind. sectors** — Combine **business** information with **patent** information
- **Growth stage** — Detect startups in their **development stage**
- **Funding** — Identify startup **investors**
- **European patents** — Access to patent data in **Espacenet**

~8 500 startups





THANK YOU FOR YOUR ATTENTION

epo.org

THANK YOU!

Register now to our upcoming webinar: “Infringing AI: Liability for AI-generated outputs under EU/UK copyright law”

Date: Sept 19th at 4pm CEST

https://www.4ipcouncil.com/webinars