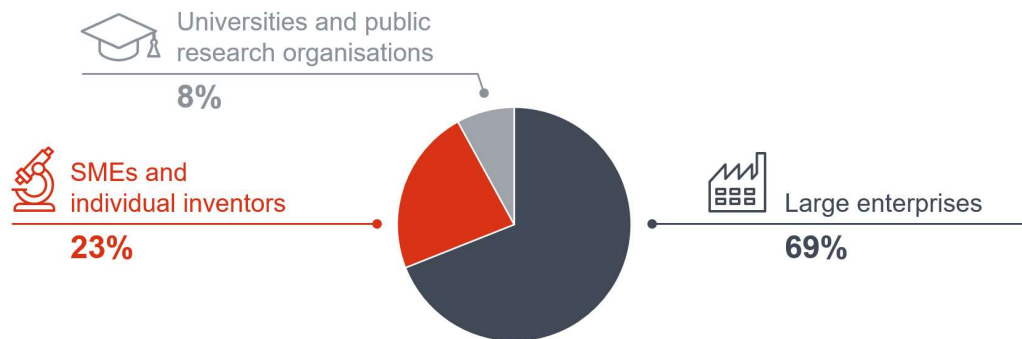


# THE ROLE OF EUROPEAN UNIVERSITIES IN PATENTING AND INNOVATION

YANN MENIERE, CHIEF ECONOMIST | 25 MARCH 2025

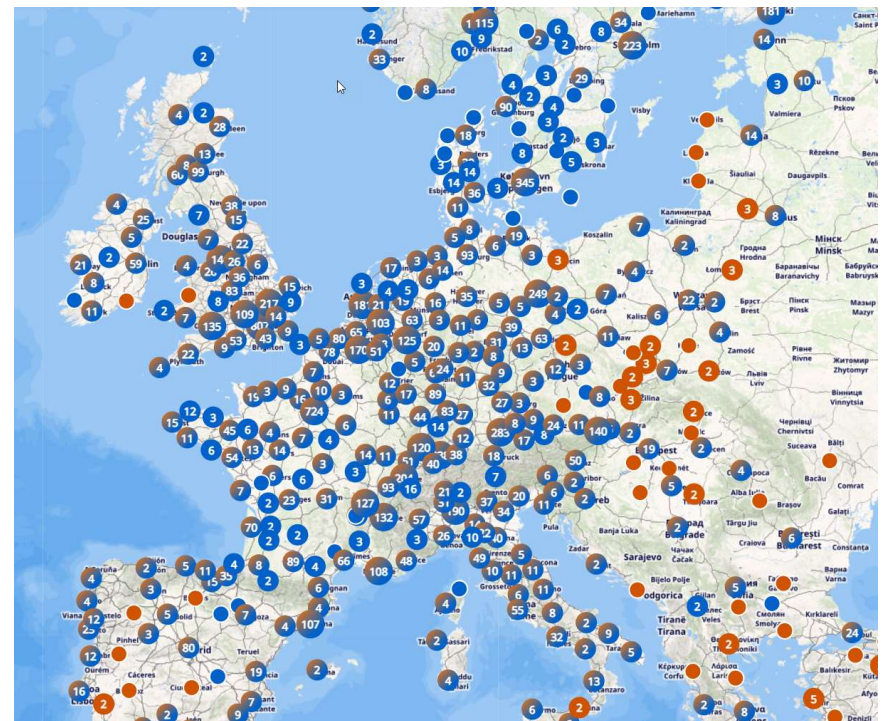
# SMALL ENTITIES ARE KEY ELEMENTS OF INNOVATION ECOSYSTEMS

Profile of European applicants at the EPO  
(% of applications in 2023)



Sources:  
EPO Patent Index 2023

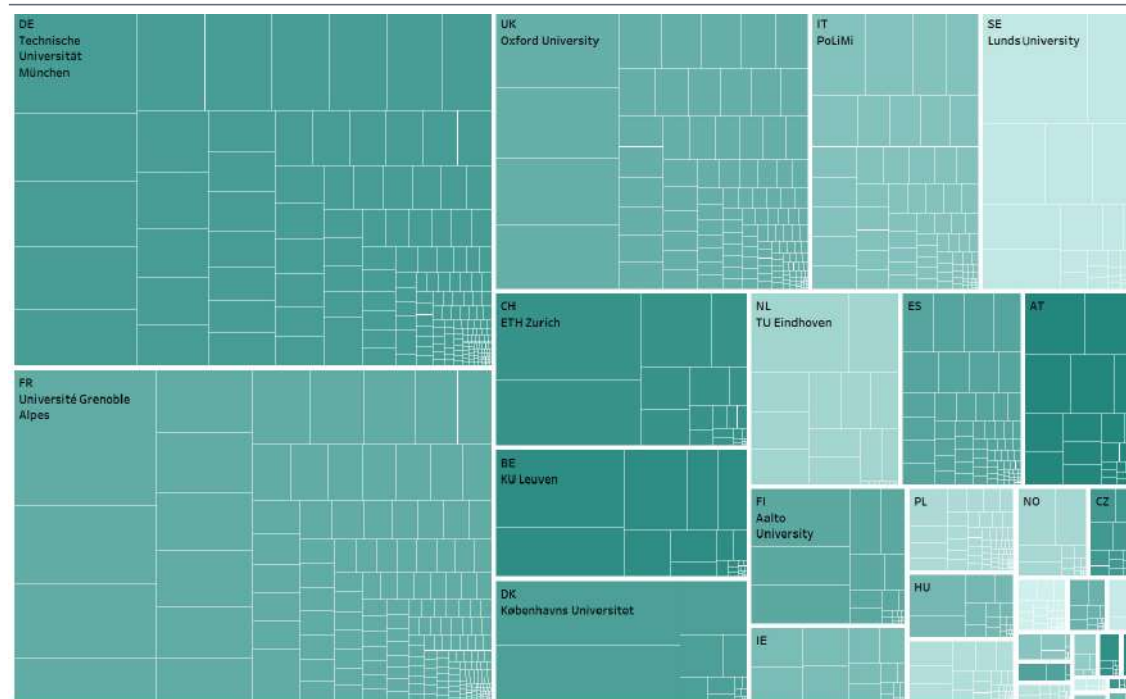
Explore innovation ecosystems with EPO's [Deep Tech Finder](#)



## MORE THAN 1 200 EUROPEAN UNIVERSITIES GENERATE PATENT APPLICATIONS AT THE EPO

- **5% of universities** account for **half of all patent applications**. They are typically large universities active in science-based fields.
- **Nearly two thirds of universities (62%)** account in total for **8% of all applications**. They are typically small universities, focused on engineering.

Distribution of academic patents by university and country, 2000-2020



Source: ETER, EPO - PATSTAT, Elsevier SCOPUS.

# IDENTIFYING **ACADEMIC INVENTORS** TO TRACK THE IMPACT OF EUROPEAN UNIVERSITIES



Academic  
inventor



Academic patents  
(Patent applications listing one or more  
inventors affiliated to a University)



**Direct** patent application  
by the university  
(as employer)

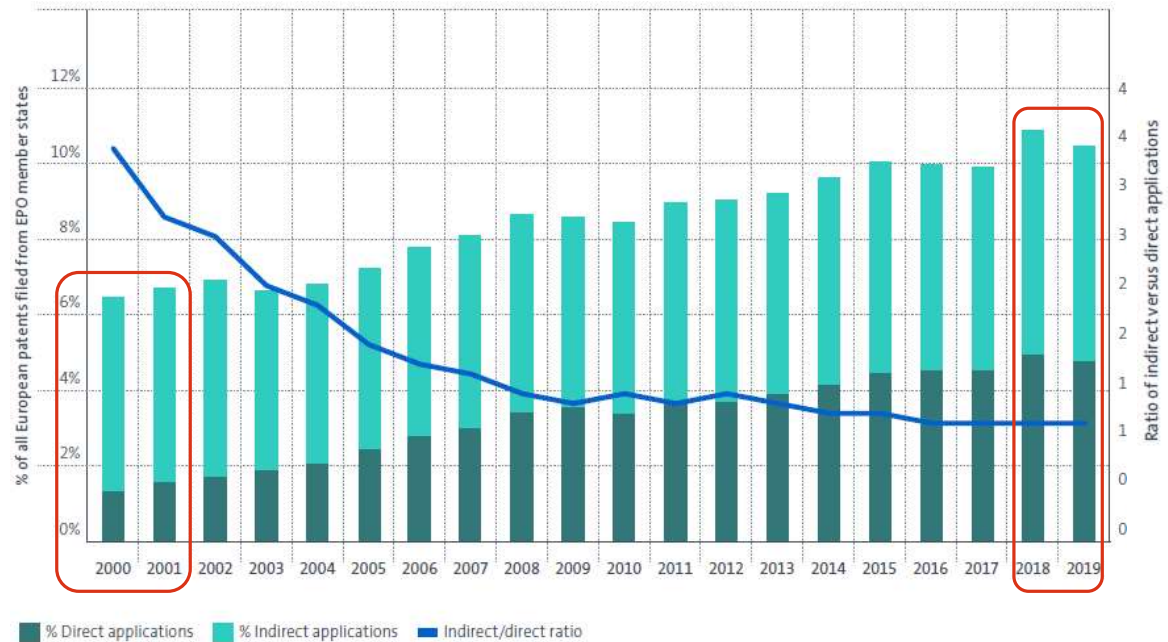


**Indirect** patent application  
by a partner organisation  
or by the inventor  
as a private person

## INCREASING IMPACT OVER THE PAST TWO DECADES.

- Overall, European universities has been shifting **towards direct ownership** of academic patents.
- However, important differences persist between **national models** in the way in which universities handle patent ownership and knowledge transfers

Academic patents as a share of all European patent applications, 2000-2019

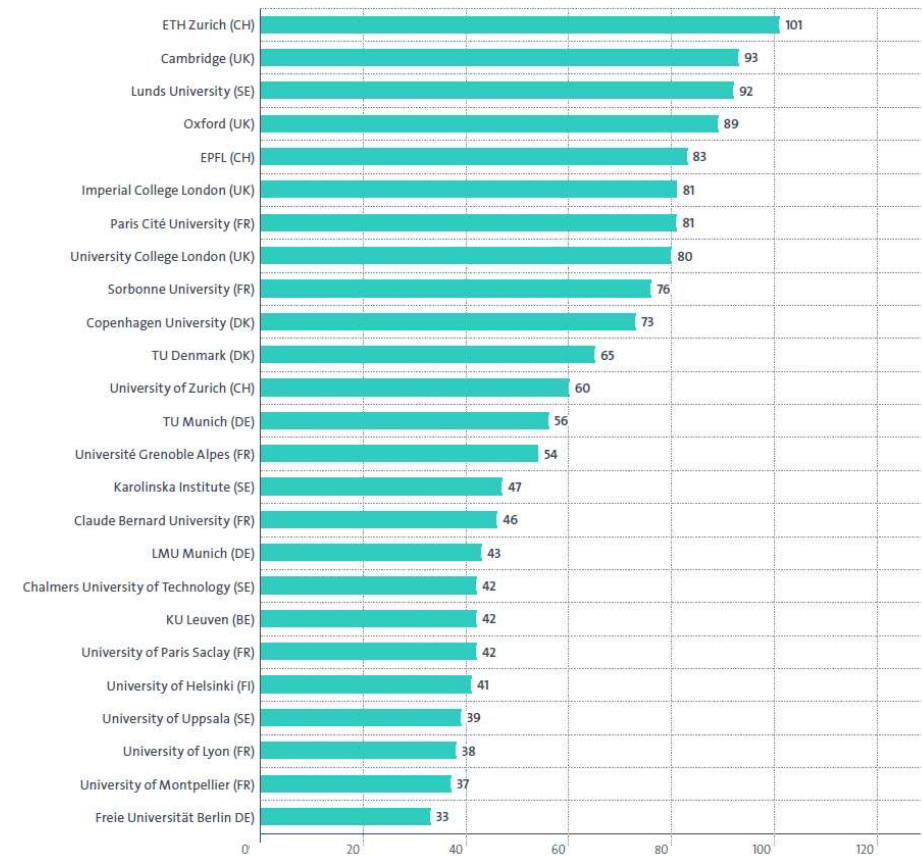


Source: ETER, EPO - PATSTAT, Elsevier SCOPUS.

## Fostering science-based innovation

- About 80% of indirect applications patents were filed by companies in the period 2015-2019, and **33% by SMEs**
- The **top 25 co-applicants** accounted for **32% of academic patents**. They include multinational companies sourcing academic inventions mainly from their headquarter countries.
- **12%** of all academic inventions were **patented by startups**. Three quarters of these startups sourced their academic inventions from a short list of **25 high-profile European universities**.

## Top 25 universities by number of startups with academic patent applications at the EPO, 2000–2020

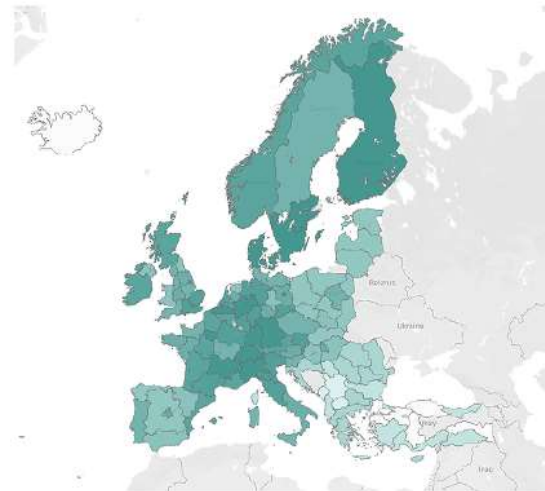


# THE FOOTPRINT OF UNIVERSITIES DEPENDS ON LOCAL INDUSTRY ECOSYSTEMS

- 76% of applicants for indirect applications were based in the **same country** as the academic inventor's university.
- Academic patents are concentrated in the more **industrialised regions** of Europe.
- While universities in **other regions** generate relatively small numbers of academic patents., they account for a **large proportion of local patent applications**, which are frequently filed by partner companies.

## Academic patenting by European regions: number of European patents by NUTS 1 region, 2000–2020

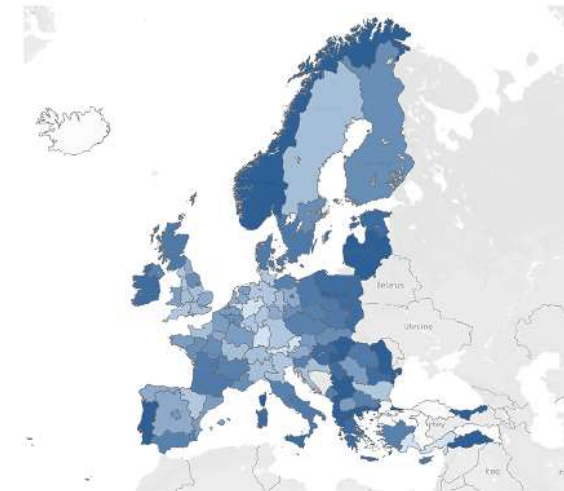
Number of academic patents filed at the EPO by NUTS 1 region



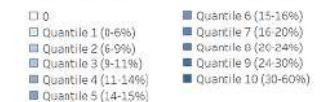
Number of academic patents (10 quantiles)



Academic patents as a share of total patent filings at the EPO by NUTS 1 region



Share of academic patents in all EP filings (10 quantiles)

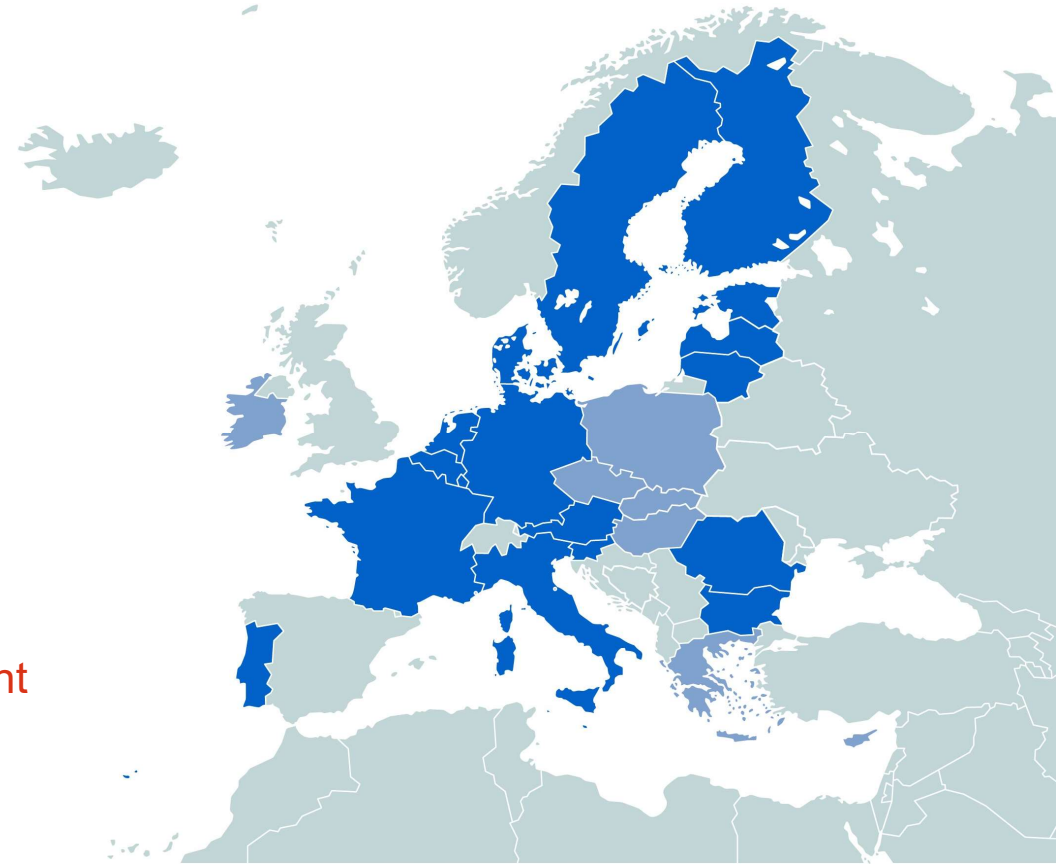


Source: ETER, EPO - PATSTAT, Elsevier SCOPUS.

## THE **UNITARY PATENT** NOW PROTECTS INVENTORS IN MARKETS WHERE THEY WERE ACTIVE WITHOUT SEEKING LOCAL PATENT PROTECTION

Access to **unitary protection** in up to 25 member states :

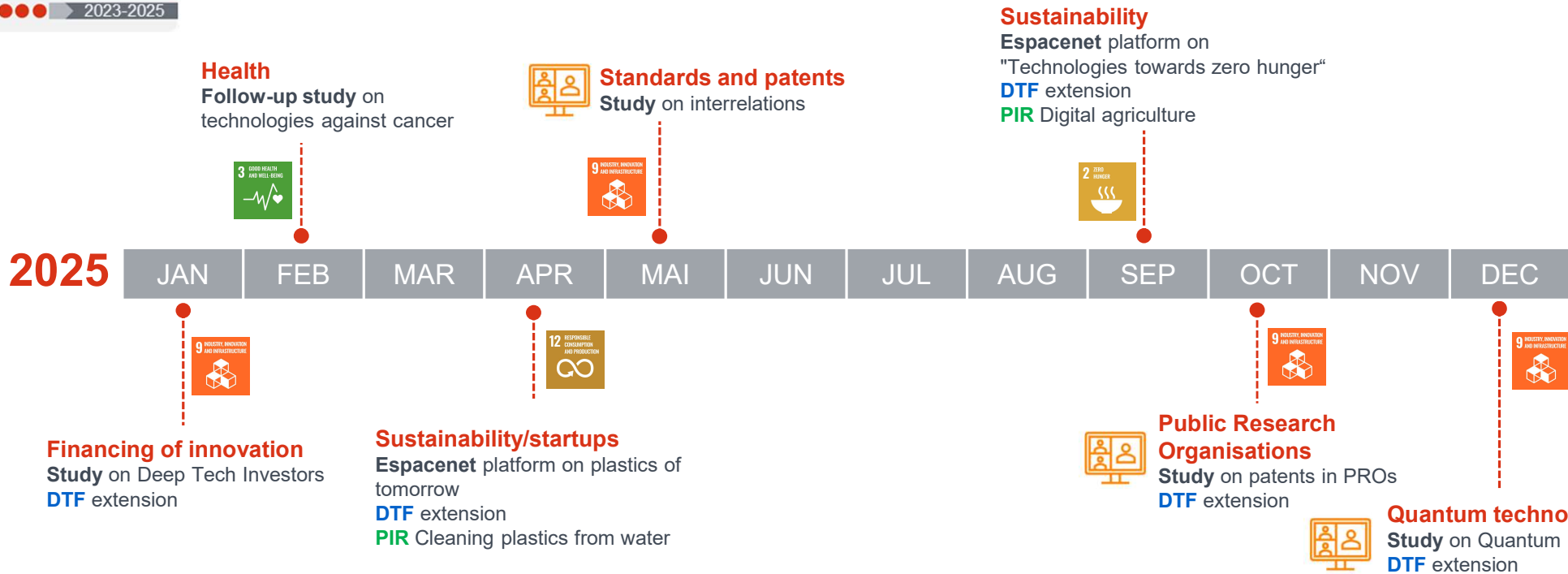
- creates enhanced **flexibility** to enter national markets
- enables **collaborations** with a broader variety of partners to commercialise inventions across the EU
- offers a strong **signal of economic value** to attract **funding**
- Enables **productivity gains** through better diffusion of technology through cross-border **trade and investment**







# EPO Observatory on Patents and Technology



Online event planned

**DTF:** Deep Tech Finder  
**PIR:** Patent Insight Report

Note: This timeline is subject to adjustment

**THANK YOU FOR YOU ATTENTION!**

