

Observatory on Patents and Technology

BIENNIAL WORK PROGRAMME 2026-2027

epo.org



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FOREWORD FROM THE PRESIDENT

The Observatory: a bridge between data and policy

We are living in a decisive moment for Europe. Technological change is accelerating at an unprecedented pace. How well we collectively understand and respond to this transformation will shape Europe's competitiveness, resilience, and autonomy for decades to come.

Patents have long been a cornerstone of technological progress, opening doors to investment, tech transfer and partnerships. But beyond that, they are a valuable source of intelligence. Every patent is a signal of what's being developed, where, by whom, and with what potential impact. When used wisely, this intelligence can help Europe act smarter and faster.

If we want technologies to serve the many — delivering both meaningful market success and widespread impact — we need to make better use of this patent knowledge as a public good: accessible, understandable and aligned with the common interest. It is a matter of coordination and transparency, harnessing our systems, knowledge and networks in a much more intelligent way.

Over the past two years, the EPO Observatory on Patents and Technology has taken its first steps in transforming patent intelligence from a niche resource into a practical lever — for innovators, businesses, policymakers, investors, and the next generation navigating their way in an increasingly complex world. We've delivered evidence-based insights across green tech, space, cancer innovation, and digital agriculture. By identifying patterns and market gaps early, we have shifted the focus from hindsight to foresight.

Our work looks beyond *what* is invented to *who* is innovating — examining universities, startups, and financing systems. We have built new tools to democratise access, connect knowledge and stakeholders. Through spaces for exchange, we've brought this insight into the public conversation — helping Europe's innovation ecosystem see itself more clearly, and act more strategically.

By identifying patterns and market gaps early, we have shifted the focus from hindsight to foresight.

Overall, the Observatory has laid the groundwork for informing better policies, sharper investment, and more effective innovation strategies. These early efforts have confirmed what Draghi's report anticipated: if we want Europe to lead in innovation, we need to act earlier, act smarter, and act at scale.

The Observatory aims to evolve in the long term into an active intelligence platform: a system for early warning, a strategic compass, and comparative analysis of where Europe stands and what it needs. It will not only track innovation but help steer it. That means giving small businesses visibility into where innovation is happening and how to be part of it. Helping industrial strategists detect vulnerabilities such as technological dependencies. Enabling investors to detect high-potential ventures before the market does. And equipping public institutions with a shared, informed understanding of the landscape.

Delivering on this vision requires alignment, trust and shared ambition. The Observatory is working in close coordination with its 39 EPO Member States and actively partnering with key institutions on our studies including the European Innovation Council (EIC), the International Energy Agency (IEA), the European Investment Bank (EIB), the ASTP or the Fraunhofer ISI, among others. These collaborations reflect a broader truth: no single actor can shape Europe's technological future alone. The Observatory is one part of a larger ecosystem — an enabler within a strategic effort to ensure Europe's innovation system is more connected, inclusive and, most importantly, impactful. We will continue to actively seek partnerships alliances at the heart of our mission — because without collaboration, sustainable success is out of reach.

This biennial work programme reflects the Observatory's evolving mission. It is a living document, designed to adapt as new challenges and opportunities arise. As the technological landscape accelerates, so too does the conversation — and the community driving it forward. In an age of rapid change, knowledge is foundational, and when knowledge becomes shared intelligence, it becomes a force for meaningful progress. With it, Europe stands a better chance not just to adapt to the future, but to shape it with purpose.

António Campinos

President European Patent Office



OUR JOURNEY IN 2023–2025

A snapshot of impact

The EPO's Observatory on Patents and Technology has started to lay solid foundations for its long-term mission to help foster a more innovative society. Through its reports, data analysis, new tools and collaborations with academic and industry partners it has contributed to a better understanding of trends in patenting and technology development. Public online events have increased the Observatory's outreach and facilitated dialogue with a broad range of innovation actors beyond IP experts.

Our journey's impact in figures:

RESOURCES DELIVERED

REPORTS AND PUBLICATIONS



5 technology insight reports (TIRs)

The technology insight reports, previously known as patent insight reports, focus on future and emerging technologies - in other words technical fields that have yet to reach a critical mass of patent applications. The reports are designed to provide valuable insights into these potentially disruptive technologies by taking a wider view of their development that goes beyond a narrow focus on patents.

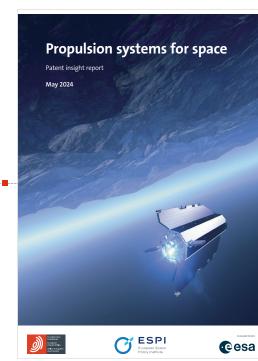








special needs

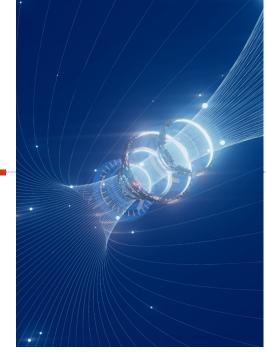




RESOURCES DELIVERED

REPORTS AND PUBLICATIONS

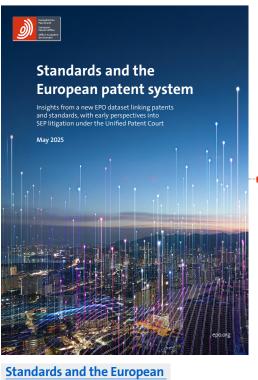








The role of European public research in patenting and innovation



patent system

The role of European

universities in patenting

The role of European universities in

patenting and innovation



New frontiers in oncology: an evolving innovation ecosystem

Innovation in water-related



Mapping investors for European innovators

Financing and commercialisation of

cleantech innovation



Patents and innovation against cancer:

Evidence from patent and company data

Intellectual property rights and firm performance in the European Union -Firm-level analysis report













Most accessed publications to date

Patents, trade marks and startup finance: Funding and exit performance of European startups

^{*} The total number of economic studies published by the end of the biennial work programme 2023 – 2025.



RESOURCES DELIVERED

TOOLS

Launch of the Deep Tech Finder (DTF)

The <u>Deep Tech Finder</u> is a free, interactive and easy-to-use tool that connects investors, researchers, startups and universities. It combines EPO patent data with business insights.

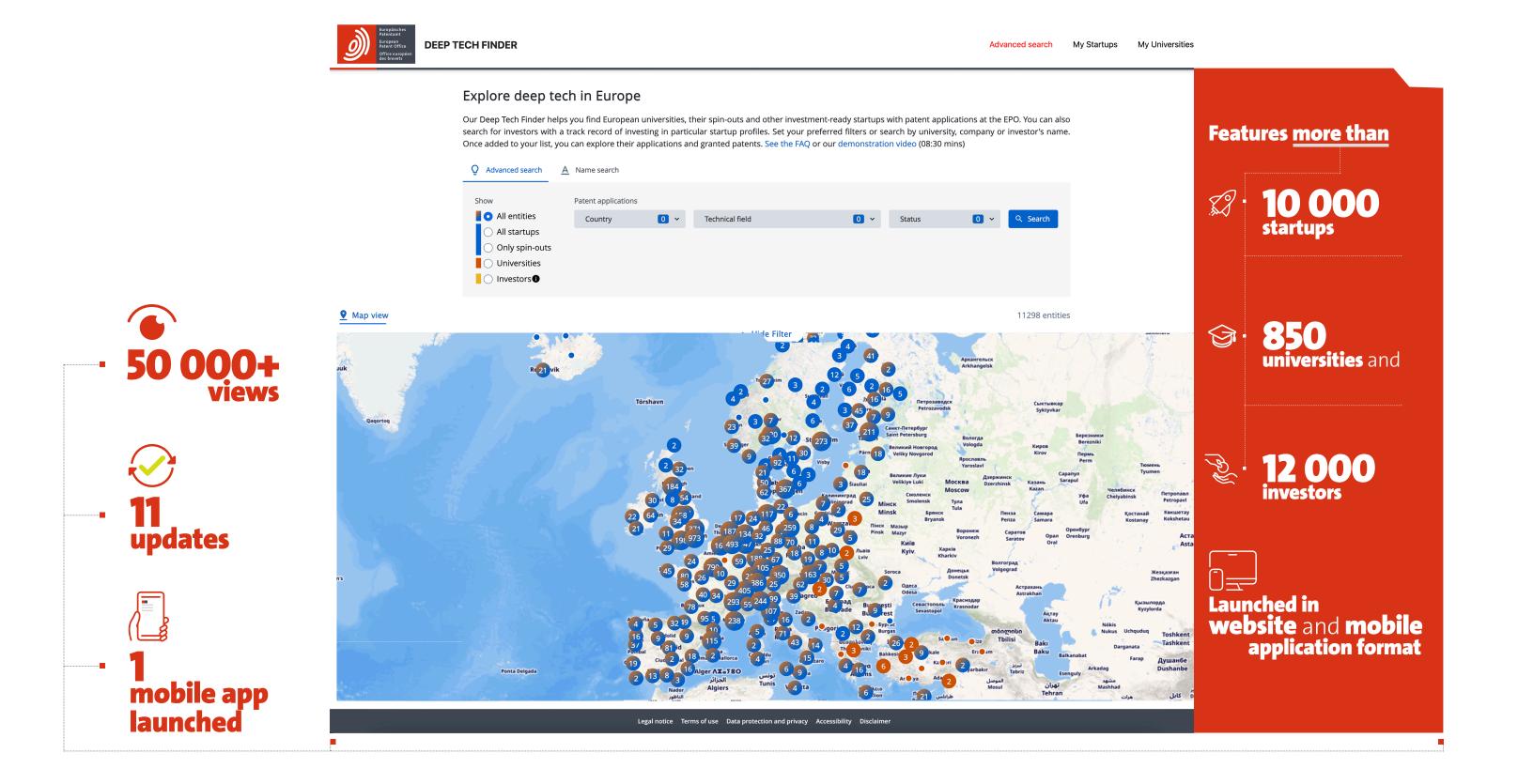
This tool sheds light on inventions and ventures which are bringing new technology to market on a European scale. By harnessing the EPO's expertise in patent information, the DTF helps potential investors and business partners to find out what inventions are being developed in specific technology fields and assess their levels of protection by European patents.

Launch of the Technology Investor Score (TIS) and the Patent Standards Explorer (PES)

The Technology Investor Score (TIS) is a new metric introduced by the Observatory, which is the proportion of companies in an investor's portfolio that have filed patent applications. It ranges from zero to one, with higher values indicating higher degrees of investor specialisation in patented technology. With over one thousand distinct values, its high granularity makes the TIS a powerful tool for identifying investors well suited to funding innovation.

The <u>Patent Standards Explorer</u> (PES) is a dataset connecting patent applications to SDO documents, linking the patent and standards worlds beyond traditional self-reported standard-essentiality declarations.

Both tools were introduced in 2025 and will be further developed in the biennial work programme 2026–2027.



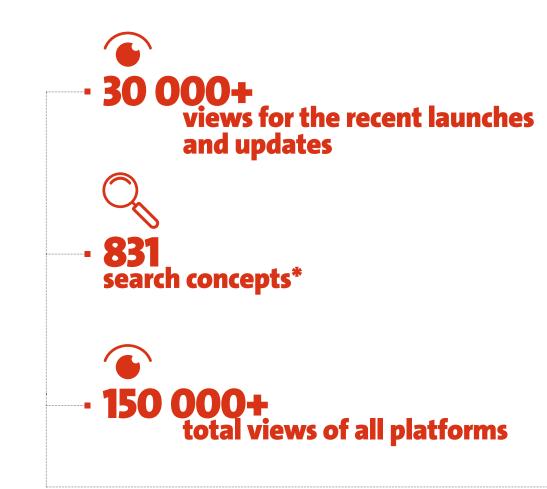


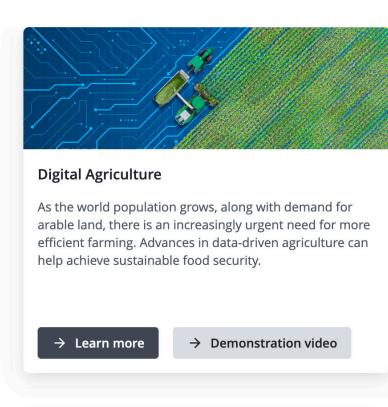
RESOURCES DELIVERED

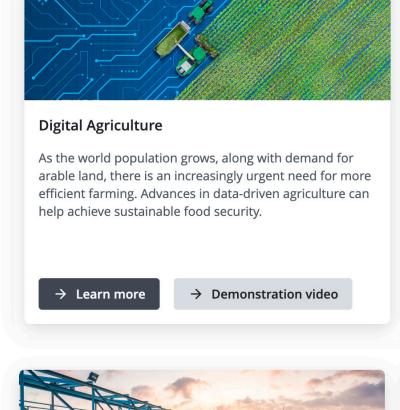
TOOLS

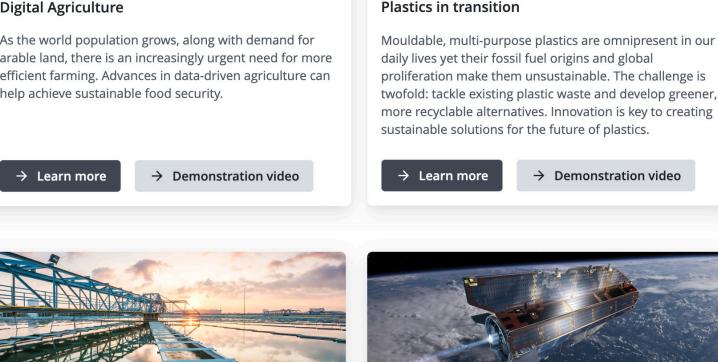
Launch of 5 new technology platforms and 3 updates of existing ones

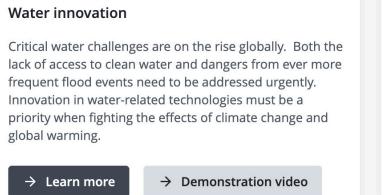
The EPO provides technology platforms that help users explore patents in specific scientific and technical fields. Each platform includes expert-reviewed searches in the free Espacenet database, making it easy to find accurate and relevant patent information. These tools support researchers, innovators and the public in understanding the latest developments and trends in technology.













Space innovation is critical both for expanding our understanding of the cosmos and for improving life on Earth. The growing engagement of private actors has need to track new developments.





Combatting cancer

As medical science reduces mortality from many other diseases, the incidence of cancer is expected to increase rapidly because of ageing populations, unhealthy lifestyles and unfavourable environmental conditions. Innovation in technologies for fighting cancer is essential to address this challenge.

→ Demonstration video



Firefighting

Forest wildfires represent a severe hazard. As their frequency and intensity increase, their implications are becoming global. However, the pace of innovation is also increasing in areas such as fire prevention and firefighting.

→ Demonstration video



Space innovation

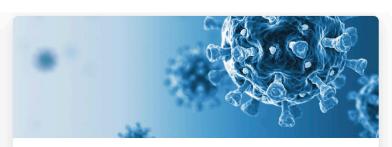
accelerated the pace of space innovation, increasing the



Clean energy

In today's world, we face a multitude of energy-related issues both as a society and at an individual level. However, one issue that affects us all is climate change.

→ Demonstration video



Fighting coronavirus

The COVID-19 pandemic caused by the novel coronavirus SARS-CoV-2 has led to an urgent search for vaccines, treatments and technologies that can counter the spread of disease and save lives.

→ Demonstration video

Water innovation

global warming.

^{*} A search concept is a ready-made search in Espacenet representing a specific technical field. It helps users quickly find relevant patents and can be adjusted to suit their needs.



ENGAGEMENT AND OUTREACH

EVENTS AND DIALOGUE

9 events organised*



40 000+ live and recording views





PODCASTS

7 episodes released Q





8 000+ total listens

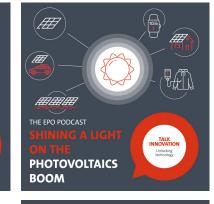














^{*} The total number of public events organised by the end of the biennial work programme 2023 – 2025.



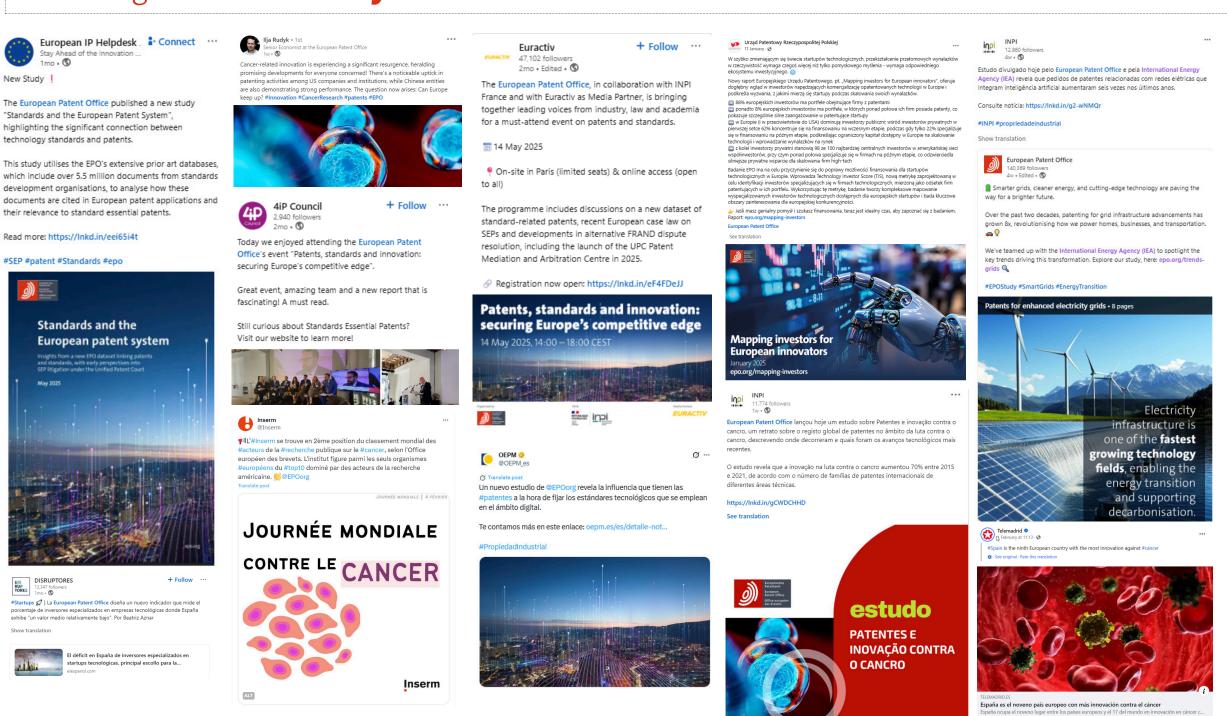
VISIBILITY AND PUBLIC AWARENESS

MEDIA IMPACT*

5.5M

worldwide.

users were reached on social media through EPO Observatory content

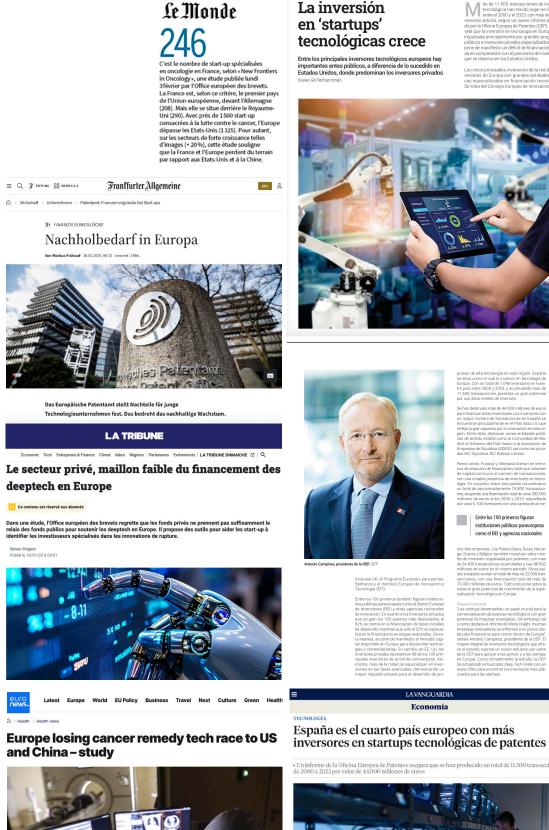


* The numbers shown are based on media results from campaign monitoring in selected markets. They do not include all media channels and activities

clean reach generated by press coverage of economic studies

3 500+

press clippings generated by the economic studies published





VISIBILITY AND PUBLIC AWARENESS

ECHOES OF IMPACT

The work of the Observatory has been mentioned in ongoing policy discussions and reports across sectors. The following selection of references and quotations illustrates its uptake in recent papers as well as by companies making use of the tools developed.

Cited by:



Increasing innovation, industrial and technological competitiveness

(August 2024)

Cites the tool **Deep Tech Finder** to highlight the strong link between patent-active startups and access to EIC funding.



The Future of European Competitiveness

(October 2024)

Patent data provided by the EPO Observatory—drawn from projects on **European universities, clean technologies innovation, and quantum technologies**—was used to support the analysis in the report.



Investing in Europe's green future

(January 2025)

The EIB-EPO Observatory study **Financing and commercialisation of cleantech innovation** was cited as evidence of EU green innovation activity and the role of patents in attracting investment.



WIPO Technology Trends: Future of Transportation

(February 2025)

The ESPI-ESA-EPO Observatory technology insight report and technology platform **Propulsion systems for space** were cited in the section on innovation practices in the space industry.



The State of Energy Innovation

(April 2025)

The IEA-EPO Observatory study **Patents for enhanced electricity grids** was used as contributing evidence for the exploration of indicators of energy technology developments.



The EU Startup and Scaleup Strategy

(May 2025)

The EPO Observatory studies **Patents, trade marks and startup finance: Funding and exit performance of European startups**, a joint publication with the EUIPO, and **The role of European universities in patenting and innovation** were cited as supporting sources in the development of policy measures aimed at enhancing innovation capacity and startup growth across the EU.



VISIBILITY AND PUBLIC AWARENESS

ECHOES OF IMPACT

Being on the **Deep Tech Finder** not only recognizes our commitment to intellectual property as a strategic asset, but also positions us within a European ecosystem that connects innovation, investment and scalability.

Foqum

Madrid, Spain

We recently used the **Deep Tech Finder** for a quantum computing related search and were impressed by the capabilities of the tool.

Peter Berg

Senior VP Intellectual Property at Infineon Technologies AG Munich, Germany

What struck me most was how my clients reacted — appearing on the **Deep Tech Finder** made them feel like they were on the Forbes 500 list. It offers not just visibility, but validation.

Artis Kromanis

European Patent attorney at KROMANIS

Riga, Latvia

The report by the European Patent Office just came out. It stresses the importance for Europe to get more deeptech savvy investors. The authors unsurprisingly show that deeptech (tech with strong IP) investments perform better and offer optimal exit potential. They introduce a **Tech Investor Score** (TIS) that encapsulates the patent density of an investor's portfolio. Over 15K investors from Europe and the US have been put to the test.

Jolt Capital

Paris, France



VISION FOR 2026 AND 2027

Scaling innovation, broadening access

In a global context marked by rapid technological change and growing societal demands, the Observatory will build on these achievements and continue to deliver trusted, data-driven technology insights accessible to all innovation actors.

The biennial work programme 2026-2027 is anchored in three overarching themes that reflect the Observatory's strategic vision and commitment to shaping a more resilient and forward-looking innovation ecosystem. Each theme encompasses several key topics, which are addressed by one or more projects designed to address specific challenges and opportunities.



Shaping a brighter future with technology: Harnessing innovation to tackle global challenges, promote sustainability and ensure technological progress that serves the public good. This theme explores climate change and the energy crisis, the health sector and critical technology areas in Europe.



Empowering innovation actors: Supporting inventors, researchers, startups, SMEs and institutions with the tools, knowledge and networks they need to maximise the impact of their work. This theme spans startups and SMEs, academic and research institutions, diversity and inclusion in innovative activities, as well as careers in science and innovation.



Breaking barriers to the innovation ecosystem: Focusing on improving Europe's competitiveness and innovation capacity. This theme covers patents and standards, IP rights and economic performance, financing innovation and the Unitary Patent as an engine for innovation.

Thesethemes, topics and projects are all closely aligned with Europe's broader transformation priorities, included in the Draghi report on EU competitiveness, the Letta report on the Single Market, the EU Competitiveness Compass and the EU Startup and Scaleup Strategy. A special emphasis will be placed on fostering a more coordinated and strategic approach to innovation, ensuring that Europe remains competitive and cohesive in the face of global change.

While we will be focusing even more closely on European priorities, we will continue to prioritise our general alignment with the global societal challenges and UN SDGs, as a natural continuation of the last two years of our work programme.

Together, these three themes provide a shared framework for action – driving forward our mission to contribute to a more open, impactful and resilient innovation ecosystem in Europe.



OUR NEXT TOPICS



I Circularity in battery technologies

Can we prevent battery waste and re-use critical resources?

I Al and medicine

How is AI reshaping the future of healthcare, from diagnosis to delivery?

I Al and drones

Can Europe compete in the global race for smarter, autonomous systems?

I Access to medicines

Can patent intelligence help improve access to medicines?

I The future of brain health

Can patents help us fight neurodegenerative diseases?



EMPOWERING INNOVATION ACTORS

I Reaching out to high-tech startups

Connecting with Europe's deep tech startups through key events

Women in STEM

What do patents tell us about the journeys of women scientists and inventors in Europe?

I Technology Transfer Offices and spinouts

What are the main pathways for public research to reach the market in Europe, especially through spinouts?

I Mobility of European researchers and inventors

Where do Europe's researchers build their inventions, here or abroad?

I Fostering innovation skills among European youth

Is Europe prepared to train the next generation of inventors and innovators?

I Patents and market success for tech startups

How do European tech startups use patents to scale up and succeed?



I IPR-intensive industries and economic performance in the European Union

How do IPR-intensive industries impact the EU economy?

I IP rights and innovation in Latin America

What role does IP play in the development of the region?

I Standards and the European patent system

How does the European patent system support progress in technology standards?

■ Mapping institutions that lend against IP

Which IP lenders can Europe's innovators approach to obtain funding with their patents?

I The Unitary Patent in action

Exploring adoption trends

Biennial work programme 2026-2027



CLIMATE CHANGE AND ENERGY CRISIS

The impact of climate change and the intensifying global energy crisis present some of the most urgent challenges of our time. Governments, industries and societies are under increasing pressure to transition to sustainable and resilient energy systems while ensuring long-term energy security. Innovation and technological development are essential drivers in this transformation, and patents offer a unique lens through which to understand the pace, direction and diffusion of such innovations.

Managing the environmental impact of renewable energy technologies throughout their lifecycle, including recycling and reuse, is a critical part of building a sustainable energy future. Building on previous work, the Observatory will focus on patenting activity related to lifecycle management of batteries, which are central to the global energy system and key to the EU's clean energy transition.

The Observatory will focus on patenting activity related to lifecycle management of batteries, which are central to the global energy system and key to the EU's clean energy transition.

Q2 2026

Circularity in battery technologies

Can we prevent battery waste and re-use critical resources?

Description:

Highlighting innovations through mapping patenting activity in lifecycle management for batteries.

Expected outputs:

- Technology insight report
- Technology platform
- DTF data update











Biennial work programme 2026-2027



THE HEALTH SECTOR

Healthcare systems around the world are under increasing pressure from rising demand, ageing populations and the growing complexity of medical needs. Patent intelligence offers valuable insights into technological developments across the health sector, helping to monitor trends and identify emerging fields. One such emerging field is artificial intelligence (AI), which is increasingly being applied to healthcare. The rapid growth in AI-related patent filings in the medical domain reflects its potential to transform health systems and clinical practice. By analysing these patterns, the Observatory seeks to support informed policymaking and a better alignment between innovation and public health goals.

Over the period 2026 and 2027 the Observatory will explore three main areas within the health sector. First, it will examine the penetration of Al in medicine, using patent data to assess how and where it is being adopted across healthcare applications. Second, it will conduct a landscaping study on initiatives aimed at improving access to medicines, with a focus on how greater transparency and efficiency in the patent—regulatory interfacecanenhancethe availability of innovative health products. Finally, it will investigate recent innovation in the prevention, diagnosis, treatment and management of neurodegenerative diseases, an area of growing importance in the context of an ageing population.

Q4 2026

Al and medicine*

How is AI reshaping the future of healthcare, from diagnosis to delivery?

UN SDGs:





Q2 2027

Access to medicines

Can patent intelligence help improve access to medicines?

Description:

Exploring mechanisms to improve access to medicines by enhancing transparency and efficiency between patents and regulatory processes, aiming to support the availability of innovative health products.

Expected outputs:

■ Economic study

UN SDGs:





Q3 2027

The future of brain health

Can patents help us fight neurodegenerative diseases?

Description:

Exploring the latest innovation in the prevention, diagnosis, treatment and management of neurodegenerative conditions.

Expected outputs:

■ Technology insight report

■ Technology platform

■ DTF data update

UN SDGs:



The Observatory seeks to support informed policymaking and a better alignment between innovation and public health goals.

^{*}This is a cross-project. For more information, see *Critical technology areas for Europe* topic.



Q1 2027

Biennial work programme 2026-2027



SHAPING A BRIGHTER FUTURE WITH TECHNOLOGY

CRITICAL TECHNOLOGY AREAS FOR EUROPE

Strategic technologies are vital to Europe's competitiveness, resilience and security. In a rapidly evolving global landscape Europe must strengthen its capacity to develop, adopt and scale up the critical technologies that underpin its digital and green transitions. The European Commission has identified ten such technology areas essential to the EU's future, ranging from AI and advanced semiconductors to quantum and biotechnologies. Understanding innovation trends in these fields is crucial for informed policymaking, investment, and capacity-building. Patent data can help track where and how these technologies are emerging and how Europe positions itself globally.

During the years 2026 and 2027, the Observatory will support this strategic priority by analysing patenting activity in selected critical technologies. The topic of Al will be addressed through two reports that will examine its penetration in key applications: one in the health sector, assessing the scope and speed of adoption across medicine; and the other in unmanned aerial vehicles (UAVs), also known as autonomous drones. A project examining circularity in battery technologies, which is also critical to the energy transition, will be also looked at.

Q2 2026

Circularity in battery technologies*

Can we prevent battery waste and reuse critical resources?

UN SDGs:







Q4 2026

Al and medicine

How is AI reshaping the future of healthcare, from diagnosis to delivery?

Description:

Assesses the scope, speed and focus areas of AI adoption across the medicine sector.

Expected outputs:

- Technology insight report
- Technology platform
- DTF data update

UN SDGs:





Al and drones

Can Europe compete in the global race for smarter, autonomous systems?

Description:

Assesses the scope and speed of AI adoption across autonomous drone technologies.

Expected outputs:

- Technology insight report
- Technology platform
- DTF data update

UN SDGs:



The topic of AI will be addressed through two reports that will examine its penetration in key applications: one in the health sector, assessing the scope and speed of adoption across medicine; and the other in unmanned aerial vehicles (UAVs), also known as autonomous drones.

^{*} This is a cross-project. For more information, see the Climate change and energy crisis topic.

Biennial work programme 2026-2027



STARTUPS AND SMES

Startups and small and medium-sized enterprises (SMEs) are vital to innovation, economic growth and job creation in Europe, yet they often face structural barriers such as limited access to finance, weaker resources for IP strategy development and fragmented innovation ecosystems. Ever since the establishment of the Observatory, a special focus has been placed on supporting them. A joint EPO-EUIPO study was published on how innovative startups obtain financing to develop their ideas into new products for the marketplace, and the Deep Tech Finder tool was launched to help investors detect and assess European startups that are bringing high tech inventions to market in critical technology areas, among other activities.

Over the next few years the Observatory will continue its efforts to reach out to startups through a joint initiative with EPO member states, ensuring strong visibility at startup events and innovation fairs across Europe. Together, the Observatory and NPOs will deliver presentations and workshops, and share insights, tools and resources on key topics such as financing innovation, startup success and technology transfer. This initiative aligns with broader EU priorities, as outlined in Mario Draghi's *The Future of European Competitiveness* and the EU's 28th regime proposal. The map in the next page highlights recent joint activities, with over 15 additional events planned for 2026.

In 2027 the Observatory will carry out a dedicated study examining the link between patenting and business success among European technology startups. The project will analyse how startups leverage patents as strategic assets for scaling, securing funding and entering new markets.

The Observatory and NPOs will deliver presentations and workshops, and share insights, tools and resources on key topics such as financing innovation, startup success and technology transfer.

2025 and 2026

Reaching out to high-tech startups

Connecting with Europe's deep tech startups through key events

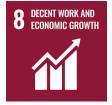
Description:

Participation in startup events and fairs in Europe, in close collaboration with EPO member states.

Expected outputs:

- Targeted engagement with the European startup ecosystem
- Tailored materials for the startup ecosystems

UN SDGs:





Q4 2027

Patents and market success for tech startups

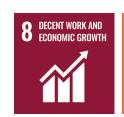
How do European tech startups use patents to scale up and succeed?

Description:

An assessment of technology startups looking at the role played by patents and IP (e.g. the UP and access to finance) on the growth of SMEs and startups in the EU.

Expected outputs:

- Economic study
- Innovation case studies

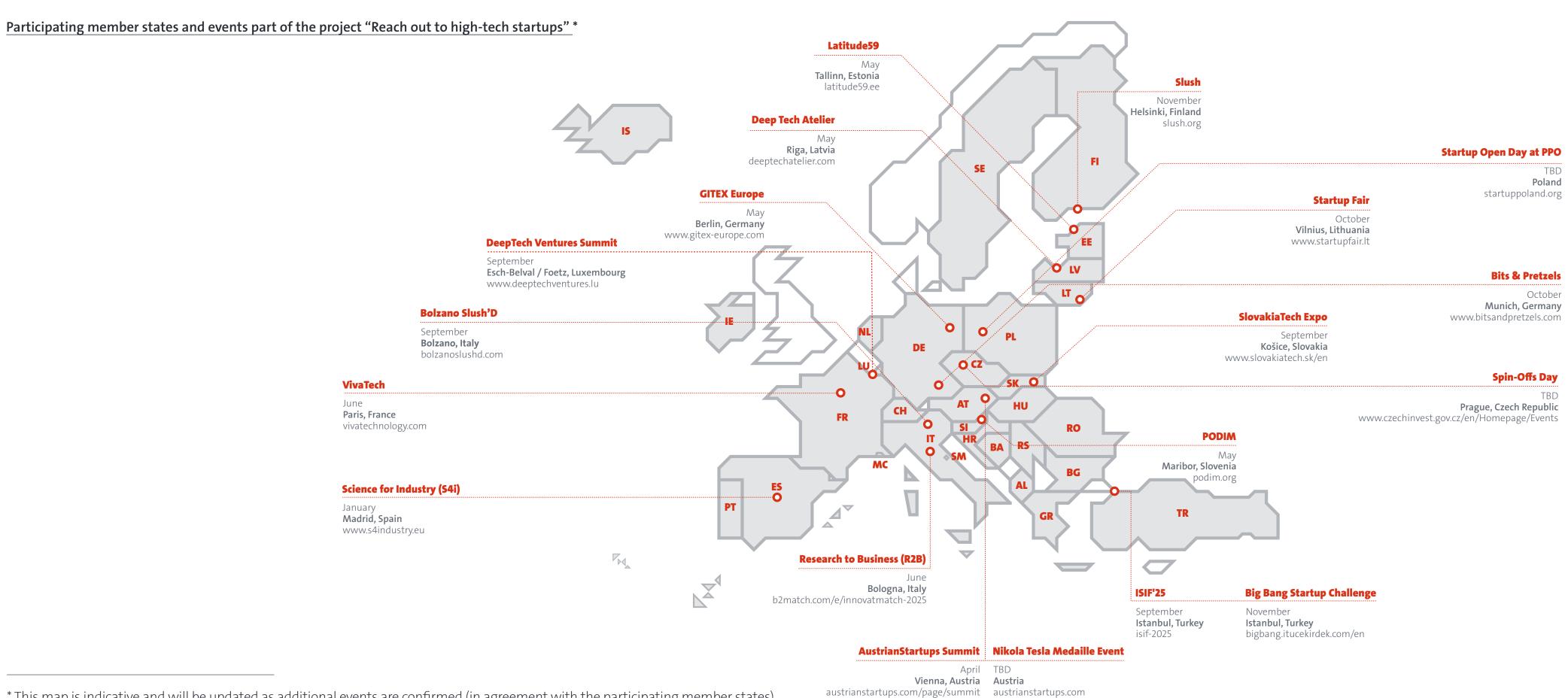




Biennial work programme 2026-2027



STARTUPS AND SMES



^{*} This map is indicative and will be updated as additional events are confirmed (in agreement with the participating member states).

Biennial work programme 2026-2027



ACADEMIC AND RESEARCH INSTITUTIONS

Academic and public research institutions such as universities, research hospitals and public research organisations are vital to Europe's innovation ecosystem, generating breakthrough science and early-stage technologies that can drive long-term growth and address societal challenges. Yet turning this research into market-ready innovation remains a complex task. Technology transfer offices (TTOs), typically embedded within these institutions, play a central role in bridging this gap; but they often face structural, regulatory and resource-related barriers when commercialising patents or supporting spinouts.

As part of its initial biennial work programme the Observatory developed the first comprehensive mapping of the patenting and innovation activities coming from universities and public research institutions across Europe. In the period 2026–2027 it will take a closer look at the role of TTOs in this landscape. A dedicated study will explore best practices, success factors and persistent challenges in patent commercialisation and the creation of spinouts, offering fresh insights into how Europe can strengthen its knowledge transfer capacity.

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Q4 2026

Technology Transfer Offices and spinouts

What are the main pathways for public research to reach the market in Europe, especially through spinouts?

Description:

Examines the role, effectiveness, and challenges of Knowledge Transfer Offices in commercialising academic research and creating spinout companies across Europe.

Expected outputs:

■ Economic study









Biennial work programme 2026-2027



DIVERSITY AND INCLUSION IN INNOVATIVE ACTIVITIES

Fostering diversity and inclusion (D&I) in the innovation ecosystem is essential to ensuring that Europe's knowledge economy reflects its full social potential. Historically underrepresented groups continue to face structural barriers in science, technology and patenting. Greater inclusion not only promotes fairness but also enriches innovation and delivers better outcomes for society. Various efforts are underway across Europe to broaden access to science, technology, engineering and mathematics (STEM), one such example being the European Commission's STEM Education Strategic Plan or the EPO's own Young Inventors Prize campaign and event.

In support of this broader agenda the Observatory will develop two targeted projects in 2026 and 2027. The first initiative is on women in STEM, using never-before-seen data to analyse their representation and career progression across academia and industry in a broad range of European countries. A key focus will be the gender drop-off at critical career stages, such as postdoctoral research, entrepreneurship and patenting. A dedicated awareness campaign will ensure these findings reach key decision-makers.

The second project will examine how innovation and creativity skills are taught in schools, identifying opportunities for earlier and more inclusive engagement. Special campaigns and tailored resources will support both youth and underrepresented groups, reinforcing the EPO's long-term commitment to a more diverse innovation landscape.

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Q1 2026

Women in STEM

What do patents tell us about the journeys of women scientists and inventors in Europe?

Description:

Focusing on the progression of women in STEM fields across more European countries, assessing their representation in academia and industry and identifying trends in gender equality.

Expected outputs:

■ Economic study

UN SDGs:









Q4 2027

Fostering innovation skills among European youth

Is Europe prepared to train the next generation of inventors and innovators?

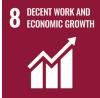
Description:

Mapping how innovation, and entrepreneurship are taught in school curricula across Europe. A series of learning and parallel support projects and campaigns for both kids and schools will be launched.

Expected outputs:

■ Economic study







Biennial work programme 2026-2027



SCIENCE AND INNOVATION CAREERS

Attracting and retaining STEM talent is vital to Europe's innovation capacity and long-term competitiveness. While many STEM graduates complete advanced training and contribute to research, not all stay in careers that involve high-impact scientific output and patenting in Europe. Understanding how and where these transitions happen, particularly after doctoral studies, can inform more effective policies to strengthen the links between academic training, inventive activity and economic impact. A critical element in achieving this is ensuring the freedom to conduct research across borders, fostering a common market of research and innovation as envisioned by the European Research Area (ERA).

In 2027 the Observatory will launch a major study focused on the career trajectories of STEM graduates, with particular attention to PhD holders. The project will track whether these individuals remain in Europe, where they move, and whether they go on to patent and publish scientific work, revealing critical insights into researcher mobility and knowledge flows. By analysing the link between education, mobility and innovation output, the study will highlight where European talent is working, what conditions support successful transitions to inventive careers and how the continent's capacity to convert research into competitive advantage can be strengthened. These findings will directly contribute to the objectives of the EU's European Competitiveness Compass and support a more strategic approach to nurturing and retaining innovation talent across Europe.

The project will track whether these individuals remain in Europe, where they move, and whether they go on to patent and publish scientific work, revealing critical insights into researcher mobility and knowledge flows.

Q2 2027

Mobility of European researchers and inventors

Where do Europe's researchers build their inventions, here or abroad?

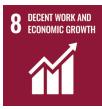
Description:

Investigating trends of STEM graduates, their PhD theses, patent applications and academic publications, migration and career paths.

Expected outputs:

■ Economic study









Biennial work programme 2026-2027



PATENTS AND STANDARDS

Technology standards are the backbone of our digital economy, from smartphones to connected cars, and are set to play an important role for emerging technologies such as AI and quantum communications. The patent system plays a key role in the development of technology standards by incentivising R&D investments and exchanges of technical knowledge and therefore encouraging a balanced relationship between the patent and standardisation systems. This aligns incentives to develop optimal technical solutions with the promotion of widespread dissemination and is crucial for enhancing Europe's competitiveness. The EPO stands ready to support this endeavour.

As part of the biennial work programme 2023 – 2025 the Observatory started work on this topic with the launch of its programme on patents and standards. The first milestones included publication of the study <u>Standards</u> and the <u>European patent system</u>, the release of the <u>Patents Standard Explorer</u> dataset and the event <u>Patents</u>, standards and innovation: securing Europe's competitive edge.

In 2026 the Observatory will advance the programme with a new study to provide a landscape of Standard Essential Patent (SEP) declarations, including an overview of ongoing efforts aimed at improving the integration of SEP declarations made to Standards Development Organisations (SDOs) into the EPO system, and will provide insights into FRAND determination. Additionally, the Patent Standard Explorer dataset will be transformed into an interactive webpage, enhancing accessibility and usability.

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Q3 2026

Standards and the European patent system

How does the European patent system support progress in technology standards?

Description:

The study will involve updating and enriching the EPO standards patent dataset, which will be used to provide new evidence on the relationship between patents and standards.

Expected outputs:

■ Economic study









FINANCING INNOVATION

Access to finance remains one of the most critical enablers (and barriers) to translating innovation into market success. For inventors, startups and growing technology firms, securing funding can determine whether an idea remains in the lab or becomes a commercial breakthrough. Intellectual property, particularly patents, can serve as a valuable asset to attract investors, signal technological potential and reduce investment risk. However, Europe's innovation ecosystem continues to face challenges in fully leveraging IP for financing, with a need to better connect inventors with capital providers and build trust in the valuation and use of patents in financial transactions.

As part of the biennial work programme 2023–2025 the Observatory started work in this topic to improve access to financial markets for European innovators, with a particular focus on inventors, start-ups and SMEs. Since then it has published three economic studies (Patents, trademarks and startup finance co-authored with EUIPO, Financing and commercialisation of cleantech innovation co-authored with EIB and Mapping investors for European innovators) and launched the Deep Tech Finder tool to help find European universities, spinouts and other investment-ready startups with patent applications at the EPO, as well as search for investors with a track record of investing in particular startup profiles.

In 2026 the Observatory will continue this line of work by undertaking a mapping of financial institutions in Europe that accept patents as collateral for loans. The project will identify banks and alternative lenders engaging in IPbacked lending and examine the conditions on which financing is made available. By offering greater transparency on the available options, the study aims to support startups and SMEs in navigating the funding landscape, helping them unlock capital for scaling and commercialising their patented inventions. The results will contribute to broader efforts to strengthen IP-finance linkages in Europe and make innovation funding more inclusive and accessible.

The project will identify banks and alternative lenders engaging in IP-backed lending and examine the conditions on which financing is made available.

Q4 2026

Mapping institutions that lend against IP

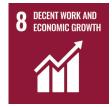
Which IP lenders can Europe's innovators approach to obtain funding with their patents?

Description:

Mapping lending institutions that use patents as collateral for loans, helping startups and SMEs with patents to identify suitable lenders and obtain funding for commercialising their inventions.

Expected outputs:

- Economic study
- DTF data update
- Other tool







Biennial work programme 2026-2027



THE UNITARY PATENT AS AN ENGINE FOR INNOVATION

The Unitary Patent and the Unified Patent Court are the building blocks of the Unitary Patent System launched on 1 June 2023 to strengthen the existing centralised European patent granting system. They offer users a cost-effective option for patent protection and dispute settlement across Europe:

- Unitary Patents make it possible to get patent protection in most EU member states by submitting a single request to the EPO, making the procedure simpler and more cost effective for applicants.
- The Unified Patent Court is an international court set up by participating EU member states to deal with the infringement and validity of both Unitary Patents and European patents, putting an end to costly parallel litigation and enhancing legal certainty.

Following the first years of successful implementation of the system the Observatory will look at uptake of the Unitary Patent, examining statistical trends such as uptake rate, filing route, technological field, procedural language, proprietor profile and origin. We will also provide an outlook on the future of the Unitary Patent as adoption grows and the legal landscape evolves.

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Q4 2027

The Unitary Patent in action

Exploring adoption trends

Description:

An examination of the uptake of the Unitary Patent, including a deeper dive into statistics, reporting on the motives of applicants' decisions and the outlook for the UP.

Expected outputs:

■ Economic study

■ Innovation case studies



Biennial work programme 2026-2027



IP RIGHTS AND ECONOMIC PERFORMANCE

IP rights such as patents, trade marks and designs play a key role in supporting innovation, competitiveness and economic growth across Europe. They provide incentives for economic actors to invest in R&D, foster technological advancement and stimulate job creation and trade.

Building on previous work, the EPO Observatory will continue to assess the contribution made by industries that make intensive use of various types of IP rights. The analysis will cover both the European Union (in partnership with the European Intellectual Property Office or EUIPO) and selected Latin American countries (in partnership with the Economic Commission for Latin America and the Caribbean or CEPAL). This will provide valuable insights into the economic impact of IPR-intensive sectors in different regional contexts.

The EPO Observatory will continue to assess the contribution made by industries that make intensive use of various types of IP rights.

Q1 2026

IPR-intensive industries and economic performance in the European Union

How do IPR-intensive industries impact the EU economy?

Description:

This joint report with EUIPO will be the fifth in a regular series that evaluates the contribution of industries making an above-average use of trademarks, designs, patents, copyright, geographical indications and plant variety rights to economic growth and employment in the EU.

Expected outputs:

■ Economic study

Partner:

European Union Intellectual Property Office

UN SDGs:



Q2 2026

IP rights and innovation in Latin America

What role does IP play in the development of the region?

Description:

An economic analysis of the economic impact of IPR industries across Latin America together with case studies offering insights into selected industries.

Expected outputs:

■ Economic study

■ Innovation case studies

Partner:

Economic Commission for Latin America and the Caribbean (CEPAL)





4. OUR TOOLS

To complement our studies and events, a set of advanced tools and services will be deployed to support and amplify the impact of the Observatory and the EPO strategic initiatives. These tools are designed not only to enhance access to high-quality patent data, but also to deliver actionable insights, foster innovation and empower stakeholders to make informed decisions.

DEEP TECH FINDER

The Deep Tech Finder (DTF) is an already available easy-to-use tool that connects investors, researchers, startups and universities, combining EPO patent data with business insights. The tool will keep evolving with selected data enrichments (such as public research organisations and value indicators), smarter search interfaces, impact monitoring tools, and the creation of a community of local DTF contacts to exchange data and intelligence.

DIGITAL LIBRARY

The Digital Library on Innovation aims to facilitate access to essential information, serving as a central repository of innovation-related information by including a wide range of resources. The library will enable innovation actors to exploit existing knowledge and discover new opportunities. Over the next two years efforts will be focused on implementing efficient content lifecycle management with document enrichment by EPO partners, and enhancing the user experience.

PATSTAT

PATSTAT is the EPO's comprehensive patent statistics database designed for conducting advanced analyses of global bibliographic and legal event patent data. It enables users to track technology trends, assess competitor activity and uncover business opportunities by providing access to over 100 million patent records from around the world. The newly insourced PATSTAT will be re-engineered and re-positioned within the EPO's new Technology Intelligence Platform (TIP), with a view to developing a PATSTAT-TIP ecosystem.

DATA DESK

The Data Desk will provide a public web interface and a gated exchange platform for official EPO data and statistics on the Observatory website. The project includes the definition and implementation of the automated production processes (with related documentation) underlying official data and statistics.

TECHNOLOGY PLATFORMS

These platforms are curated collections of expert-developed patent search strategies designed to help researchers explore specific technological fields using Espacenet. The scope, structure and design of the technology Espacenet platforms will be redefined, with broader topical areas (including a new one dedicated to disruptive emerging technologies) and updated interfaces to enhance user experience.

TECHNOLOGY INVESTOR SCORE (TIS) SEARCH FUNCTION

The TIS is a metric showing the proportion of companies in an investor's portfolio that have filed patent applications. It ranges from zero to one, with higher values indicating higher degrees of investor specialisation in patented technology.

The TIS will be transformed into an online interactive tool enabling startups to find investors with a high Technology Investor Score.

PATENT STANDARDS EXPLORER

A new online interactive tool will enable the public to explore EPO data on the standard citations PATSTAT patent applications.

MY IP SCORE

Building on the experience of IPscore, **the EPO will develop an online digital tool for portfolio management,** including context-relevant patent (e)valuation services, targeting startups and SMEs.



OUR NETWORK

Strengthening collaboration and partnerships

The EPO Observatory is committed to expanding its engagement with stakeholders to support a more inclusive and impactful innovation landscape. Drawing on diverse expertise ensures that all Observatory outputs are comprehensive, balanced and relevant across topics.

Collaboration with EPO member states remains central to this effort: following two calls for interest, engagement grew from 32 participating NPOs in 2024 to 36 in 2025. Experts contributed through three main tracks: technology (platform testing and validation), economics (data evaluation and study input) and communications (outreach and network building). Experts from national patent offices outside Europe have likewise contributed to the Observatory's studies.



EPO's 19th annual meeting with member states in Reykjavík on 18 June 2025

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National Patent Offices participating in Observatory projects



COLLABORATION WITH EUROPEAN INSTITUTIONS AND OTHER KEY STAKEHOLDERS

The Observatory strengthened its ties with the broader European innovation ecosystem, aligning its work with EU policy priorities. Formal cooperation was established with key EU institutions through letters of intent and memoranda of understanding, including the European Commission's Directorate-General for Research and Innovation (DG RTD), the European Innovation Council (EIC), the European Innovation Council and SMEs Executive Agency (EISMEA), the European Institute of Innovation and Technology (EIT) and the European Investment Bank (EIB). These partnerships reinforce the Observatory's role in supporting a transparent, innovation-driven ecosystem.

The observatories of the EPO and the European Union Intellectual Property Office (EUIPO) have explored synergies and co-operated

on economic studies of common interest. The inauguration of the EPO Observatory (focused on patents, startups and financing) was based on a study co-published by the two institutions.

To ensure broad-based input, the Observatory collaborates with leading institutions such as United Nations Environmental Programme (UNEP), the European association for professionals involved in knowledge and technology transfer (ASTP), the European University Association (EUA), and the European Association of Research and Technology Organisations (EARTO).

The Observatory has also partnered with other key institutions to copublish economic studies, leveraging expertise and networks to increase their impact and quality. Examples include studies with the European Union Intellectual Property Office (EUIPO), European Space Policy Institute (ESPI), the European Investment Bank (EIB), the International Energy Agency (IEA), the European Innovation Council (EIC), the European Space Agency (ESA) and the Fraunhofer Institute for Systems and Innovation Research. The Observatory is currently collaborating with the OECD on a joint study examining innovation trends and patenting activity in quantum technologies.

The Observatory also works with established EPO networks including the European Inventor Network (EIN), the Pan-European Seal (PES) universities, and the PATLIB centres, promoting broad dissemination and stakeholder involvement.

Looking ahead to 2026 and 2027 the Observatory will continue to apply its model of dynamic engagement, gathering targeted stakeholder groups for each topic to ensure complementary expertise and a plurality of views.



THE OBSERVATORY TIMELINE

2026 2027 **SEMESTER 2 SEMESTER 1 SEMESTER 2 SEMESTER 1 IP RIGHTS AND ECONOMIC IMPACT STANDARDS AND THE EUROPEAN** AI AND AUTONOMOUS DRONES THE FUTURE OF BRAIN HEALTH ■ EPO-EUIPO joint study on industries' performance ■ Technology insight report ■ Technology insight report **PATENT SYSTEM** New technology platform New technology platform **Economic study** Deep Tech Finder update Deep Tech Finder update ■ Update on the tool Patent standards explorer **WOMEN IN STEM** ₫" Economic study **FOSTERING INNOVATION SKILLS MOBILITY OF EUROPEAN TECHNOLOGY TRANSFER OFFICES AMONG EUROPEAN YOUTH RESEARCHERS AND INVENTORS I** Economic study **AND SPINOUTS E**conomic study IP RIGHTS AND INNOVATION IN 9 INDUSTRY, INNOV ■ Economic study **LATIN AMERICA** THE UNITARY PATENT IN ACTION ■ EPO-CEPAL joint study **ACCESS TO MEDICINES I** Economic study **AI AND MEDICINE** ■ Economic study New case studies ■ Technology insight report New technology platform **CIRCULARITY IN BATTERY** ■ Deep Tech Finder update **PATENTS AND MARKET SUCCESS IN TECHNOLOGIES TECH STARTUPS** ■ Technology insight report New technology platform • Economic study Deep Tech Finder update New case studies **MAPPING INSTITUTIONS THAT LEND AGAINST IP** ■ Economic study **MY IP SCORE** New case studies **DATA DESK** New tool New tool



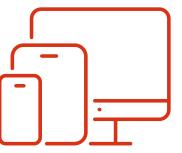
Biennial work programme 2026-2027

CONTACT

This BWP was developed through an extensive public consultation with stakeholders across the innovation ecosystem. It is a living and adaptable document that will continue to evolve in response to emerging challenges and opportunities.

We invite you to engage with us by sharing your perspectives, ideas, and proposals to further strengthen our work and address the evolving needs of Europe's innovation landscape.

To connect with us, email observatory@epo.org or visit us at epo.org/observatory.





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Published and edited by

European Patent Office Munich Germany © EPO 2025

