Where to get additional help

- Patent search at epo.org/espacenet
- European Patent Register at epo.org/register
- Online filing services at epo.org/online-services
- Training at epo.org/academy
- Job vacancies at epo.org/jobs
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Facts and figures 2019

Margarita Salas Falgueras
Winner of the Popular prize as well as the Lifetime achievement category at the European Inventor Award 2019

Our mission

As the patent office for Europe, we are proud to deliver high-quality patents and efficient services that foster innovation, competitiveness and economic growth.

Our vision

We will empower and motivate our staff to set worldwide standards in intellectual property. Our Office will be effective and transparent, respond to the needs of our users and be agile in managing the changing demands and conditions of a dynamic global patent system. Our work will contribute to a safer, smarter and more sustainable world.

Our values

All our relationships within our Office and with partners around the world will prosper through trust, fairness, mutual respect, adaptability, collaboration and a commitment to excellence.

Committed to excellence
The mark of an effective patent office is not just how many applications it receives each year, but how it deals with them.

An intellectual property office has to be able to manage increasing volumes of applications while producing high quality patents in a timely and efficient manner and through first class services.

In 2018, inventors in Europe and around the world sought more patent protection from the EPO than ever before. Applications were up by 4.6% compared with 2017, taking the overall number to its highest ever level of 174 317. All of us here at the EPO are proud that our Office has responded to this workload with a substantial increase in the number of granted patents, supported by greater productivity and innovations in the patent granting process.

As a result, users have once again been able to rely on access to legally robust IP in a timely manner. This is why they continued to rank the EPO number one in terms of quality. We remain committed to supporting innovation and the economy, so the patents of today can continue to build tomorrow’s world.

»Demand for patent protection is higher than ever before and we are working so the patents of today can continue to build tomorrow’s world.«

António Campinos
President
Patent protection in up to 44 countries

European patents provide protection not only in the 38 member states of the European Patent Organisation, but also in two extension states and four validation states. This represents an area with some 700 million inhabitants.

- **Member states (38)**
  - Albania
  - Austria
  - Belgium
  - Bulgaria
  - Croatia
  - Cyprus
  - Czech Republic
  - Denmark
  - Estonia
  - Finland
  - France
  - Germany
  - Greece
  - Hungary
  - Iceland
  - Ireland
  - Italy
  - Latvia
  - Liechtenstein
  - Lithuania
  - Luxembourg
  - Malta
  - Monaco
  - Netherlands
  - North Macedonia
  - Norway
  - Poland
  - Portugal
  - Romania
  - Russian Federation
  - Serbia
  - Slovakia
  - Slovenia
  - Spain
  - Sweden
  - Switzerland
  - Turkey
  - United Kingdom

- **Extension states (2)**
  - Bosnia and Herzegovina
  - Montenegro

- **Validation states (4)**
  - Cambodia
  - Republic of Moldova
  - Morocco
  - Tunisia
The European Patent Office (EPO) examines European patent applications, enabling inventors, researchers and companies from around the world to obtain protection for their inventions in up to 44 countries through a centralised and uniform procedure that requires just one application.

**Locations**

The EPO has its headquarters in Munich, a branch in The Hague and offices in Berlin, Vienna and Brussels.

**Staff**

The EPO is one of the largest public service organisations in Europe, employing some 7 000 staff of 35 different nationalities. Of them, 4 300 are highly qualified scientists and engineers working as patent examiners in all fields of technology.

**Governance**

The EPO is the executive arm of the European Patent Organisation, an international organisation with 38 member states.

The EPO's activities and budget are overseen by the Organisation’s Administrative Council, which consists of representatives of the member states.

**Languages**

The three official languages of the EPO are English, French & German.

Patent applications may be filed in any one of them.

**Budget**

The EPO is financed entirely by fees paid by users. In 2019, it has a budget of EUR 2.4 billion.
How we work

We grant high-quality patents that protect the interests of both applicants and society.

Sound legal framework

We examine patent applications according to our legal framework, the European Patent Convention (EPC), an international treaty ratified by the Organisation’s member states.

State-of-the-art databases

We have built the world’s most comprehensive prior-art databases, enabling our examiners to consult patent documents and technical literature from around the globe in many different languages. These databases are essential to establish if an invention really is new; otherwise it cannot be patented.

Open and transparent

We make all patent documents available to the public. We publish the status of an application at every stage of the grant procedure, enabling anyone who is interested to monitor its progress and to send us any comments they may have.

Fair, efficient and consistent

We examine applications fairly, efficiently and consistently. Not every invention qualifies for a European patent, and fewer than half of the applications we receive are awarded one. Our careful and balanced approach takes account of our responsibility towards both applicants and society.

Thorough process led by experts

Every application is examined by three examiners. Our examiners are highly qualified scientists and engineers who receive extensive training on technical and patent matters. They decide if an application complies with the EPC, and therefore whether a patent can be granted.
We are the one-stop shop for businesses and inventors seeking patent protection in Europe.

Search report and early opinion on patentability

We provide a detailed report on the prior-art for an invention and a written opinion on patentability within six months of an application being filed. This gives applicants the early certainty needed to take informed business decisions. For international ("PCT") applications, we are applicants’ preferred office for search requests.

Rigorous examination of applications

Our expert examiners determine if an invention is new, inventive and industrially applicable. If it meets these and other criteria under the EPC, a European patent can be granted.

Publication of applications and granted patents

We publish all applications 18 months after filing (unless they are withdrawn) and all granted patents.

Possibilities for review of decisions

Third parties can legally contest (oppose) the grant of a patent and applicants can appeal if we refuse their application. We then review our decision. These reviews form an integral part of quality assurance in the European patent system.
Public access to global patent data

Our public databases – containing over 110 million patent documents – are one of the most abundant sources of information about inventions and technical developments.

Read more: epo.org/espacenet

Translation of patent documents on demand

Patent Translate is our free machine translation service for patent documents. It covers 32 languages, offering automatic translation from and into English, French and German for 27 other European languages (covering all the Organisation’s member states) as well as from and into English for Chinese, Japanese, Korean and Russian.

Read more: epo.org/patent-translate

Training and awareness-raising

Our European Patent Academy organises training for patent office staff and patent practitioners and promotes IP awareness among academics and business advisers in the Organisation’s member states. Free e-learning content on a broad range of topics is available on our website.

Read more: epo.org/academy
2018 was an eventful year for the EPO: digital technologies took centre stage, President Campinos began his tenure, a new building was opened for staff in The Hague, and the EPO stepped up co-operation with member states and partners worldwide.
The EPO received over 174,000 European patent applications in 2018, a record number and 4.6% more than in 2017. European companies maintained their lead with a 47% share of all applications, marking a substantial increase over the previous year. Europe also stands out as an attractive market for companies from other regions: applications from the US, Japan, China and particularly the Republic of Korea increased in 2018.

Read more: epo.org/statistics-indicators2018
Source: EPO.

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1 European patent applications include direct European applications (Direct) and international (PCT) applications that entered the European phase during the reporting period (PCT regional).
Origin of applications\(^1\)
Nearly half of all European patent applications (47%) came from the 38 EPO member states.

They were followed by the US, Japan, China and the Republic of Korea. In Europe, German companies filed the highest number of patent applications, marking a significant increase versus last year. Among Europe’s other larger filing countries, there were substantial increases from Switzerland, the UK and Sweden. Of the European countries with lower filing volumes, Denmark, Belgium, Spain and Austria showed the strongest growth. At a global level, the Republic of Korea posted a double-digit increase (+13%). Applications from Japan were up by 3.9%, while growth from China slowed to 8.8% after several years of double-digit increases. Applications from US companies registered a moderate increase (+2.7%).

European patent applications\(^1\) per country of origin\(^2\) in 2018

Measuring inventiveness
The inventiveness of Europe’s leading economies can also be seen in the ratio of European patent applications to population. Switzerland (with 956 applications per million inhabitants) topped the list again in 2018, followed by the Netherlands (416) and several Nordic countries. Japan (179) is the first non-European country in the ranking, with a ratio higher than the EU average (139) and ahead of the Republic of Korea (142), the US (132) and China (7).

Applications\(^3\) per million inhabitants\(^4\) in 2018

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Applications per million inhabitants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>956</td>
</tr>
<tr>
<td>Netherlands</td>
<td>416</td>
</tr>
<tr>
<td>Denmark</td>
<td>411</td>
</tr>
<tr>
<td>Sweden</td>
<td>403</td>
</tr>
<tr>
<td>Germany</td>
<td>332</td>
</tr>
<tr>
<td>Finland</td>
<td>312</td>
</tr>
<tr>
<td>Austria</td>
<td>261</td>
</tr>
<tr>
<td>Belgium</td>
<td>204</td>
</tr>
<tr>
<td>Japan</td>
<td>179</td>
</tr>
<tr>
<td>Israel</td>
<td>173</td>
</tr>
<tr>
<td>Ireland</td>
<td>158</td>
</tr>
<tr>
<td>France</td>
<td>153</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>142</td>
</tr>
<tr>
<td>United States</td>
<td>132</td>
</tr>
<tr>
<td>Norway</td>
<td>114</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>111</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>88</td>
</tr>
<tr>
<td>Singapore</td>
<td>87</td>
</tr>
<tr>
<td>Chinese Taipei</td>
<td>75</td>
</tr>
<tr>
<td>Italy</td>
<td>71</td>
</tr>
</tbody>
</table>

\(^1\) European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

\(^2\) The country of origin is the country of residence of the first applicant listed on the application form (first-named applicant principle).

\(^3\) European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

\(^4\) Source of population figures: U. S. Census Bureau, International Data Base.

\(^5\) The geographic origin is based on the country of residence of the first applicant listed on the application form (first-named applicant principle).
Top 10 fields of technology\(^1\)

Medical technology remains the field with the largest number of patent applications at the EPO, followed by digital communication and computer technology. The strongest growth in the top 10 fields was registered in the life sciences area, with biotechnology and pharmaceuticals combined growing by 13%. Most European countries, the US and Japan filed high numbers of applications across a diverse range of technical fields. Filings from China and the Republic of Korea also increased significantly in a smaller number of specialised areas, including ICT. Transport made a comeback in 2018 (growing by nearly 6%), and was also the field with the largest share of patent applications originating from Europe.

<table>
<thead>
<tr>
<th>Largest technical fields in 2018(^1)</th>
<th>Applications</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Medical technology</td>
<td>13 795</td>
<td>+ 5.0%</td>
</tr>
<tr>
<td>2 Digital communication</td>
<td>11 940</td>
<td>+ 0.7%</td>
</tr>
<tr>
<td>3 Computer technology</td>
<td>11 718</td>
<td>+ 3.3%</td>
</tr>
<tr>
<td>4 Electrical machinery, apparatus, energy</td>
<td>10 722</td>
<td>+ 4.7%</td>
</tr>
<tr>
<td>5 Transport</td>
<td>9 039</td>
<td>+ 5.9%</td>
</tr>
<tr>
<td>6 Measurement</td>
<td>8 744</td>
<td>+ 9.3%</td>
</tr>
<tr>
<td>7 Pharmaceuticals</td>
<td>7 441</td>
<td>+13.9%</td>
</tr>
<tr>
<td>8 Biotechnology</td>
<td>6 742</td>
<td>+12.1%</td>
</tr>
<tr>
<td>9 Other special machines</td>
<td>6 379</td>
<td>+10.9%</td>
</tr>
<tr>
<td>10 Organic fine chemistry</td>
<td>6 233</td>
<td>-3.6%</td>
</tr>
</tbody>
</table>

\(^1\) The definition of the fields is based on the WIPO IPC technology concordance.
\(^2\) European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

Top applicants\(^3\)

Siemens was the top patent applicant at the EPO in 2018, switching positions with Huawei who moved to number two. They were followed by Samsung, LG and United Technologies. The top 10 list was made up of four companies from Europe, three from the US, two from the Republic of Korea and one from China.

<table>
<thead>
<tr>
<th>Top applicants in 2018 (^3)</th>
<th>Applications</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Siemens</td>
<td>2 493</td>
<td>+12.3%</td>
</tr>
<tr>
<td>2 Huawei</td>
<td>2 485</td>
<td>+3.6%</td>
</tr>
<tr>
<td>3 Samsung</td>
<td>2 449</td>
<td>+21.5%</td>
</tr>
<tr>
<td>4 LG</td>
<td>2 376</td>
<td>+15.6%</td>
</tr>
<tr>
<td>5 United Technologies</td>
<td>1 983</td>
<td>+15.4%</td>
</tr>
<tr>
<td>6 Royal Philips</td>
<td>1 617</td>
<td>-6.7%</td>
</tr>
<tr>
<td>7 Qualcomm</td>
<td>1 593</td>
<td>-14.1%</td>
</tr>
<tr>
<td>8 Ericsson</td>
<td>1 472</td>
<td>+7.2%</td>
</tr>
<tr>
<td>9 General Electric</td>
<td>1 307</td>
<td>-4.7%</td>
</tr>
<tr>
<td>10 Robert Bosch</td>
<td>1 286</td>
<td>-8.9%</td>
</tr>
</tbody>
</table>

\(^3\) The list shows the main consolidated applicants at the EPO in 2018 (first-named applicant principle). It is based on European patent applications filed with the EPO, which include both direct European applications and international (PCT) applications that entered the European phase during the reporting period. Applications by identifiable subsidiaries, not necessarily located in the same country, were allocated to the consolidated applicants.
Applicant categories\(^1\)

A breakdown of applications originating from European countries shows that patents are not just for big companies. In 2018, nearly 30% of applications at the EPO were filed by small or medium-sized enterprises, universities and public research organisations.

Breakdown of applications originating from Europe in 2018\(^1\)

- **Universities and public research organisations\(^1\)**: 9%
- **SMEs\(^2\), individual inventors**: 20%
- **Large enterprises**: 71%

Granted patents\(^1\)

The EPO published nearly 128 000 granted European patents in 2018, an increase of some 21% on the previous year. This increase was achieved thanks to higher productivity and the streamlining of our internal work processes. Most patents went to European companies (45%), followed by companies from the US and Japan. The number of patents granted to Korean and Chinese applicants grew significantly, albeit from a lower starting point.

Granted European patents\(^1\) by country of origin\(^2\) in 2018

- **Germany**: 16%
- **Japan**: 17%
- **US**: 24%
- **P.R. China**: 4%
- **R. Korea**: 5%
- **Other EPO member states**: 16%
- **France**: 7%
- **Switzerland**: 3%
- **UK**: 3%
- **Netherlands**: 3%
- **Sweden**: 3%
- **Italy**: 3%
- **Other**

Total granted patents\(^1\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Granted Patents</th>
<th>Percentage Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td><strong>127 625</strong></td>
<td>+20.8 %</td>
</tr>
<tr>
<td>2017</td>
<td><strong>105 635</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

\(^1\) This breakdown is based on a large representative sample of patent applications filed with the EPO in 2018 by applicants located in member states of the European Patent Organisation.

\(^2\) SMEs have been identified based on the European Commission definition of SMEs (2003/361/EC). According to this definition, an SME is i) an independent company with ii) less than 250 staff and iii) a turnover below €50 million and/or a balance sheet below €43 million. Detailed financial data and company ownership data from the BvD Orbis database have been used to enable a strict application of this definition.

\(^3\) This category “public research organisations” includes technology transfer offices that while registered as corporate entities are clearly affiliated to a university or public research organisation.
The European grant procedure provides for legal remedies to contest the EPO’s decisions. Anyone can oppose a European patent within a period of nine months from the mention of its grant. In 2018, the EPO issued 4,061 opposition decisions, with an opposition rate of 3.2%. A total of 73% of the opposed patents were upheld either as granted or in amended form. Decisions reached in examination and opposition proceedings may be appealed before the Boards of Appeal, the EPO’s first and final judicial instance.

Outcome of opposition decisions¹ in 2018

- Patent revoked: 27%
- Patent upheld as granted: 32%
- Patent upheld in amended form: 41%

¹ Opposition decisions communicated by EPO examiners.
Diversity and inclusion

At the EPO, we leverage the power of our inclusive and multicultural workforce on a daily basis.

Join us

If you have a Master’s degree in engineering, physics, chemistry or natural sciences and want to see the latest inventions, you too could be part of our team in Munich or The Hague.

The EPO is recruiting engineers and scientists to work as patent examiners.

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Responsible for content
Jana Mittermaier Director External Communication