Europäisches Patentamt
European Patent Office
Office européen des brevets

Quality Report 2021

Annex to the Annual Review

epo.org

Executive summary

Delivering high-quality products and services lies at the very heart of the European Patent Office's (EPO) mission.

As a valuable source of information on the state-of-the-art, high-quality patents inspire inventors to find solutions to global problems like climate change, helping society to meet the UN's sustainable development goals. With a global geographical coverage of over 2 billion inhabitants, EPO search and examination products set the gold standard in quality, as reflected in their re-use by other national patent offices around the world.

But, as the patent office for Europe, we are constantly challenging ourselves to achieve even higher levels of quality. This mindset of continual improvement not only motivates our activities under Goal 3 of the EPO's Strategic Plan 2023 (SP2023), it also defines all aspects of our operations, as highlighted in the EPO's Annual Review 2021.

Focused on the patent granting process, this report follows the applicant's journey, outlining and reporting on our efforts to enhance quality, timeliness and consistency and improve the user experience at every step of the way. Of course, before embarking on any journey, everyone has to agree on a destination. The same is true of delivering high-quality patents.

The EPO can only achieve this consensus on quality by listening and responding to a broad range of stakeholders in the patent landscape – from patent applicants and their competitors to society as a whole and the courts – to forge a common understanding of quality.

Dialogue with a wide range of users has always been central to our efforts to improve quality. Based on over 6 000 in-depth interviews, the EPO's user satisfaction survey provides a rich source of user feedback that is channelled into improvements and regular reviews of our procedures. In 2021, the survey showed that 88% of applicants were satisfied or very satisfied with the EPO's final actions and publications.

This outcome was mirrored by the results of the annual survey conducted by Intellectual Asset Magazine (IAM) in 2021, with the EPO once again ranking top among IP offices for the quality of its patents and services. Over a quarter of respondents rated our patents as excellent in 2021, marking a 3% increase versus 2020.

Internally, robust and transparent quality checks are also built into every step of the EPO's patent granting process, starting with the search and examining divisions. Every single patent application is processed by a division of three highly skilled experts in the relevant technical field – a unique feature of the EPO that is enshrined in the European Patent Convention (EPC).

In addition, the EPO's independent Directorate Quality Audit (DQA) conducts annual quality audits on classification, search and grant. In 2021, our quality audit activities were scaled up by recruiting more auditors, increasing the number and scope of quality audits, and extending the search audit to cover both the written opinion and the search report.

So, with all these checks, surveys and feedback already in place, what is missing? Each of these measures gives us just one view of quality – be it external or internal, from a proprietor or opponent, a patent examiner, expert or DQA auditor. But assessing whether we are truly on track to improve quality calls for an exchange of views.

That is why the stakeholder quality and assurance panels were launched back in 2020. These panels bring together our inhouse quality experts and a wide range of users to critically analyse a series of European patents and discuss aspects of quality and EPO practices.

In 2021, they focused on clarity and the inventive step, proving a rich source of dialogue and suggestions that helped to define our 2022 quality priorities. In 2022 and beyond the EPO will look to develop stakeholder quality and assurance panels – initially focusing on grant quality, but extending them to cover search, opposition and refusals, and both procedural and substantive issues. In the mid-term, the panels will become a key tool for calibrating the quality of our products and services.

Lastly, the EPO's new Patent Quality Charter also neared completion in 2021. The concept of a new charter was launched back in 2019 when it was widely discussed with staff and users. In 2021 the topic was discussed with the member states prior to holding a final round of discussions with users in 2022.

Looking to the future, the charter is expected to become the touchstone of quality for both the EPO and its stakeholders on their shared journey towards a higher quality global patent system and a more sustainable world.

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1. Supporting applicants in the filing process

1.1 Improving the quality of incoming applications

Common and avoidable procedural errors and deficiencies can cause unnecessary delays in the patent granting process, increase costs for applicants and, ultimately, slow the pace of the innovation cycle. In 2021, the EPO launched a project designed to improve the quality of incoming patent applications through closer dialogue with its users.

The project began with an in-depth analysis of shortcomings and common errors in the patent applications received by the EPO. Based on its findings and case studies on the filing behaviour of specific applicants, the EPO engaged in a frank, constructive exchange with a pilot group of users.

This dialogue not only led to positive changes in the filing behaviour of this group; it also provided valuable feedback that allowed the EPO to fine-tune its internal processes and align them more closely with users' needs. This analysis will be expanded in 2022 to cover a larger number of users. It will also inform broader efforts to actively engage with applicants with a view to improving the quality of incoming applications.

1.2 Digital interaction with users to prevent errors

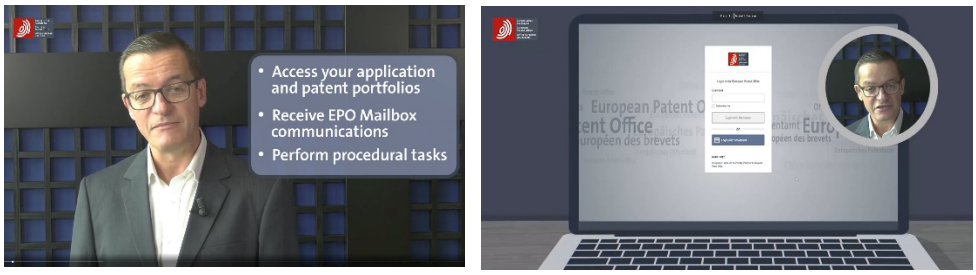
Based on this analysis of flaws in incoming applications, the EPO explored new ways of building in quality checks, designing out formal errors and interacting with applicants and their legal representatives.

A new platform to facilitate dynamic online interactions with applicants was launched at the end of November with the new online user area ("MyEPO Portfolio") for parties to proceedings before the EPO. After obtaining a smartcard and activating their EPO Mailbox, users can view their entire application portfolio documentation in a single place, carry out procedural tasks and file requests.

A key benefit of the user area is that online patent application submissions are accompanied by dynamic quality checks, which prompt users to remedy any defects immediately. Over 160 pilot participants have started testing the new user area in the pilot, which will span a seven-month period.

Drawing on the input from this pilot group, we will continue to enhance this online area, adding new functionalities, and tailoring it to meet applicants' needs. Ultimately, our goal is to put the EPO at the forefront of innovative user-centric services that are more convenient, effective, and accessible to everyone and help improve quality.

Figure 1: Benefits of the EPO's new online user area "MyEPO Portfolio"



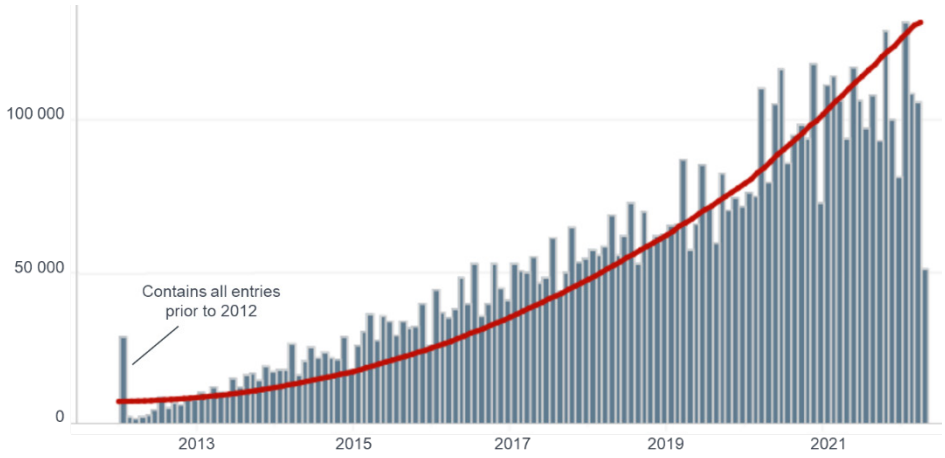
Source: EPO

In response to disruptions in postal services in 2020 due to the pandemic, the EPO strongly encouraged users to take advantage of its electronic Mailbox. In 2021, 237 new Mailboxes were created, bringing the total to around 1 150. Each Mailbox is used by five attorneys on average. Two virtual events promoting the Mailbox were held in 2021, attracting 66 participants from 25 companies.

The number of communications that are notified electronically also increased by 85 in 2021 to reach a total of 836 forms of communications for each of the EPO's three official languages. In terms of volume, 98% of EPO communications were available electronically via the Mailbox.

Over 1.2 million mail items were sent to electronic Mailboxes in 2021. After the pandemic-driven increase of 31.2% in 2020, the number of active Mailboxes rose by a further 25% in 2021. This widespread acceptance of greater digitisation not only increases legal certainty and speed of delivery, but also reduces the carbon footprint of both the EPO and our users.

Figure 2: Trend in the number of monthly mail items sent to the EPO Mailbox



Source: EPO

1.3 High-quality professionals: training support

As in previous years, EPO examiners played a crucial role in the European Qualifying Examination (EQE) in 2021. This professional certification for patent attorneys tests candidates' knowledge and aptitude to represent applicants in EPO proceedings. After the EQE's cancellation in 2020 as a result of the pandemic, a higher number of candidates than usual applied to take the examination in 2021. This placed an increased burden on EPO examiners, who were mainly involved in drafting the examination papers, marking candidates' answers and ensuring a high-quality robust examination process.

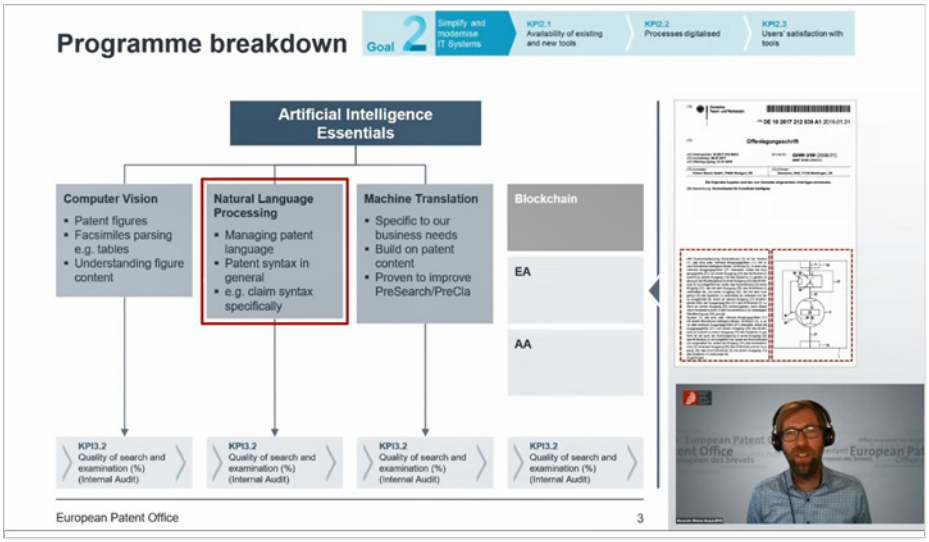
Drafting formally correct patent applications is another area where, together with European patent attorneys, examiners offered support in 2021. Drafting applications can be challenging for first-time inventors; or indeed anyone who is unfamiliar with the patent system. This can lead to procedural and substantive deficiencies that result in longer processing times and the potential to lose, or unduly limit, the scope of patent rights.

To address this issue, EPO examiners also contributed to educating patent system users by drafting extensive learning materials and delivering training modules. A total of 2 200 hours of patent training was organised by the European Patent Academy in 2021.

The number of participants enrolled in EPO training courses, EPO/third-party co-organised training courses and supported third-party events also hit a record high of 23 546. A breakdown by training areas shows that 57% enrolled in sessions on patent granting, 40% in technology transfer and dissemination, and 3% in patent litigation and enforcement.

Examiners also supported the European Patent Academy in designing its programmes and selecting suitable experts to participate in major conferences such as Search, Examination and Opposition Matters.

Figure 3: Search Matters event on artificial intelligence



Source: EPO

1.4 Handling enquiries: more effective customer support

The EPO prides itself on providing a high quality and timely service at every step of the patent granting process, including how user enquiries are handled. The EPO receives some 72 000 user enquiries each year, submitted by email, online forms or telephone. A response is issued within 16 working hours in 90% of cases.

All requests for support are handled by our first-line central enquiries unit, which either responds directly to an enquiry, or routes it to the relevant internal expert. As rerouting can cause delays, our first-line central enquiries staff received additional training in 2021, enabling them to directly answer 28.5% of enquiries up from 26% in 2020.

Feedback from users had also revealed that in around 2.4% of cases not all aspects of their enquiry were answered, obliging them to recontact us to address unresolved issues. Thanks to action taken at team level, the number of enquiries re-opened due to incomplete responses fell to 0.6% last year.

In addition, in November, a new Customer Relationship Management (CRM) tool was piloted to help staff resolve user enquiries and manage user information more efficiently. The tool will replace a solution based on outdated technology with many handover points. This update is expected to deliver significant improvements in the timeliness, quality and internal efficiency of our enquiry handling.

1.5 Complaints and feedback: improving our response

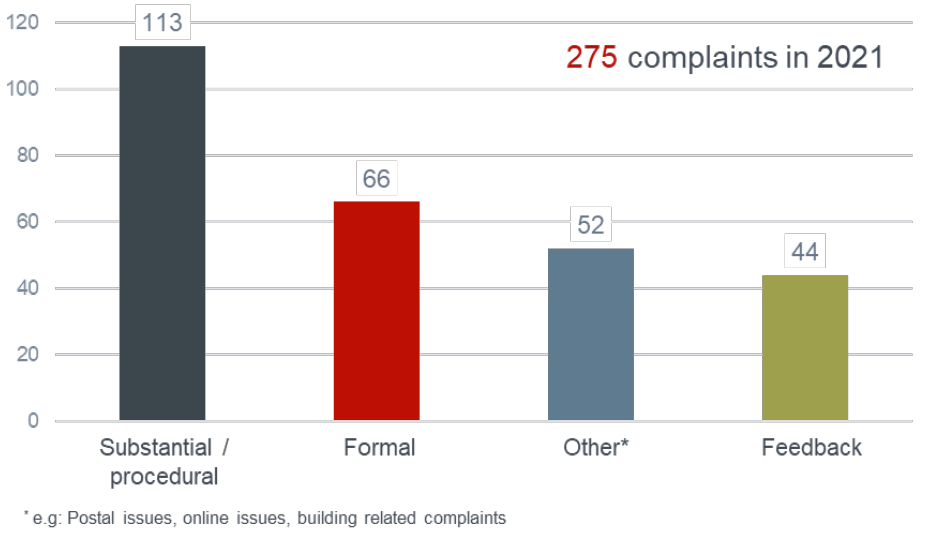
The EPO views complaints as an opportunity to correct any oversights and, most importantly, to troubleshoot in areas where problems may be arising. By addressing individual cases rapidly, issues can be solved through close interaction with our users.

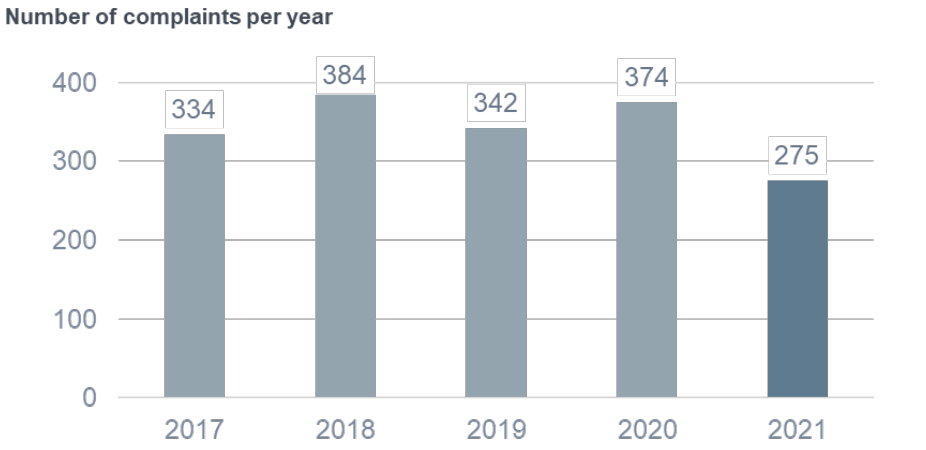
Complaints can be filed online or referred internally. In many cases, they are handled in consultation with the operational units concerned. In 2021, the EPO received 275 complaints, down from 374 in 2020, mainly addressing substantive or procedural issues and feedback.

In 2021, complaints partly fell due to fewer complaints concerning the timeliness of our products. Routing complaints directly to the relevant departments also made our response faster and more effective.

The complaints were almost equally split between professional representatives (52%) and private complainants, i.e. parties acting without the support of a qualified patent attorney (44%), with other external stakeholders accounting for the remaining (4%). These first two user groups have different needs. In December 2021, the EPO organised a dedicated online event for SMEs and private inventors offering in-depth insights into the patent system. The event attracted some 150 participants from 47 countries.

Figure 4: A breakdown of complaints in 2021





Source: EPO

Users also told us that in some cases they did not wish to complain but would like to give feedback on the service – both positive and negative. In response, the EPO launched a new feedback channel that is separate from its complaint handling system. This was also migrated to the new customer service management (CSM) tool in 2021.

The two processes are different but complement one another – complaints are generally processed within 20 working days and the exchanges between the EPO and the complainant are made available to the public where the complaint is file related. Feedback leads to internal analysis or follow-up combined with inputs from other user feedback channels but does not necessarily trigger a response from the EPO.

Introducing the new CSM tool for handling complaints gave the EPO an opportunity to follow up on them more closely by ensuring, for example, that the Office actions promised in the letter of reply take place. Any recurring topics are also flagged up to determine whether they reveal potentially a wider issue that needs to be tackled. This is in line with our efforts to gain deeper insights from users to upgrade our support for applicants and the public.

1.6 Procedural quality (formalities)

Formalities officers have a critical role to play in ensuring the quality of our products and services. So continuing to invest in the development of our formalities colleagues was another priority for 2021.

Feedback from users highlighted scope to improve the quality of our handling of PCT Receiving Office (RO) and PCT Chapter II work. A pilot was launched that created a virtual centralisation of this work directing the work to a small group of specialised formalities officers. This had a positive impact on quality, with the respective operational quality control indicators for formalities work increasing for PCT RO and Chapter II work by +9.1% and +17.5% respectively.

Through strong collaboration between the formalities teams, the timeliness of the handling of high priority messages also improved – reaching 92% actioned within half a day, up from 81% in 2020.

Operational quality controls in the formalities area revealed that some communications contained procedural and linguistic errors. To make the EPO's communications clearer and easier to understand, formalities officers now have access to a database of standard clauses designed to improve the quality of messages to applicants.

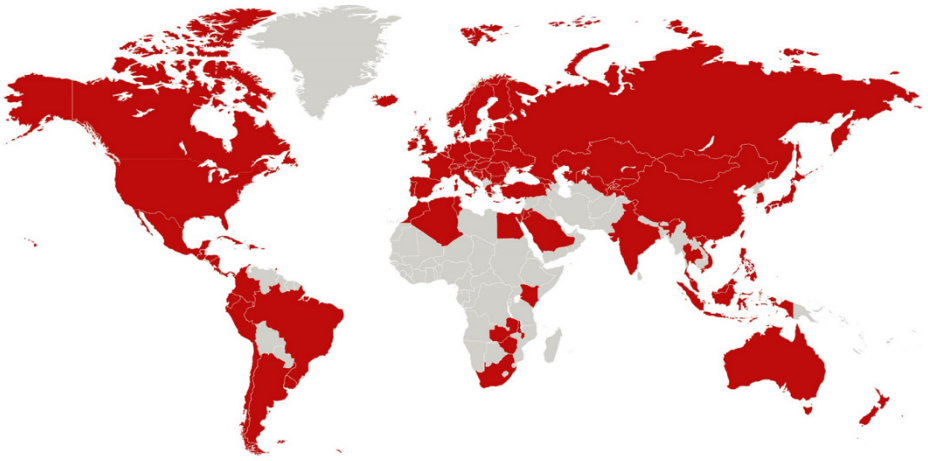
In 2021 work also continued with the Academy to design the syllabus and to draft learning materials for the new European Patent Administration Certification (EPAC) ahead of its launch in 2022. This harmonised certification will be open to all formalities officers working in the European Patent Organisation and member states, creating a "knowledge network" of highly qualified paralegals to support patent professionals and improve quality.

Lastly, the EPO set up a programme of ten different PCT online seminars in 2021 to inform and interact with our user community both in Europe and abroad. Thousands of users participated in these seminars, which generated an overwhelmingly positive response. All of the seminars were recorded and are available on EPO's website. This kind of event is crucial to improving the quality of incoming applications.

2. Taking classification and prior art to the next level

Searching the prior art is the starting point for our detailed analysis of any patent application. EPO patent examiners have access to the world's most extensive prior art collection. This encompasses 138 million patent documents (up from 130 million in 2020) – including around 70 million documents from Asia (up from 65 million in 2020) and 2.2 billion technical records (up from 1.5 billion in 2020). In terms of volume, this represents over 1 000 terabytes of information, which is roughly equivalent to 500 billion A4 standard pages of text.

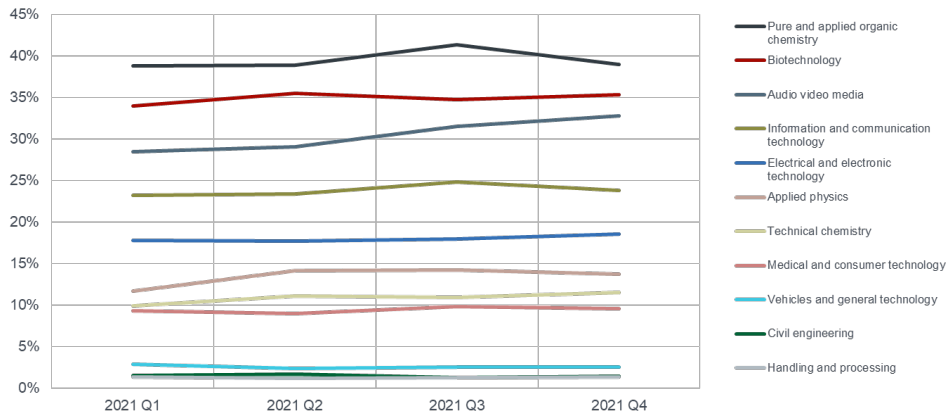
Figure 5: Geographical origin of EPO's patent bibliographic data



Source: EPO

Non-patent literature, such as articles in scientific journals, or standards for telecommunications, is an essential source of prior art in many technical fields. The volume of non-patent literature varies across technologies. In 2021, non-patent literature made the highest contribution to the total number of citations in pure and applied organic chemistry, reflecting the need to search scientific articles in these fields. Our non-patent literature database counted no less than 33.5 million full-text records at the end of 2021.

Figure 6: Non-patent literature as a percentage of total citations per technical field



Source: EPO

Standards documentation forms part of our non-patent literature prior art collection. It ensures the compatibility and interoperability of components, products and services and promotes the dissemination of new technologies. In other words, it constitutes a central pillar of the modern knowledge economy. In 2021, the EPO's collection of standards-related documents grew to 4.4 million, up from 4.1 million in 2020.

Unless confidential, contributions to developing a standard form part of the prior art.

The EPO has signed agreements with a number of standard developing organisations (SDO) to ensure that the relevant standards documentation can be

used in the patent granting process. EPO patent examiners currently have access to comprehensive literature collections from several SDOs, including:

- 3rd Generation Partnership Project (3GPP)
- European Telecommunications Standards Institute (ETSI)
- International Telecommunication Union (ITU)
- Institute of Electrical and Electronics Engineers Standards Association (IEEE SA)
- International Electrotechnical Commission (IEC)
- Association of Radio Industries and Business (ARIB)
- Internet Engineering Task Force (IETF)
- Digital Video Broadcasting Project (DVB)
- Standards for M2M and the Internet of Things (oneM2M)
- Open Mobile Alliance (OMA).

On top of the final standards issued by the SDOs, the EPO's databases also include technical disclosures submitted during the standardisation process. In addition to the renewal of existing agreements with SDOs, a new agreement was concluded with the International Standards Organisation (ISO) in 2021.

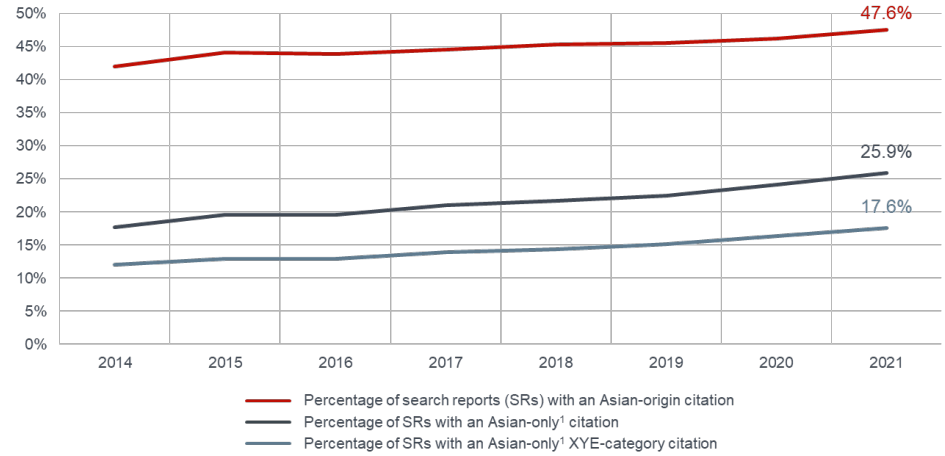
2.1 Asian citations: essential for a high-quality search

With the volume of Asian prior art continuing to soar, it is increasingly cited in the EPO's search reports, following the trend seen in recent years. By the end of 2021 47.6% of EPO search reports included an Asian-origin citation i.e. a patent document that is either published in Chinese, Japanese or Korean; or has a priority document in one of these languages.

The share of search reports with an Asian-only[1] XYE-category citation also increased marginally from around 16.4% in 2020 to 17.6% in 2021. A search conducted without access to our Asian prior art increasingly risks being incomplete, which is why EPO examiners are supported by access to this prior art thanks to a state-of-the-art AI-based machine translation tool.

[1] An Asian-only citation is a Chinese-language, Japanese-language, or Korean-language patent document that does not have any EPO-language (English, French, German) simple patent family member

Figure 7: Developments in Asian prior art citations in EPO search reports (SRs)



Source: EPO

2.2 Accurate classification for finding the right prior art

Finding the most relevant prior art is paramount to the quality of a patent search. An effective classification system structures prior art according to well-defined concepts in a language-independent way, making searches more efficient.

Documents that are classified incorrectly, or too late, may not be reliably retrieved by an examiner during a prior art search, which can result in an inaccurate assessment of the patentability of a claimed invention.

The Cooperative Patent Classification (CPC) scheme, jointly managed by the EPO and the US Patent and Trademark Office (USPTO), is a bid to harmonise classification in a single, common scheme. The CPC contains 260 000 technical categories (or classification symbols) and provides the most sophisticated patent classification scheme.

It allows examiners to retrieve relevant prior art from many different sources, regardless of the language of the patent application. By enhancing its co-operation with other offices, the EPO aims to increase the use of CPC to make it the world's reference system for classifying patent documents.

2.2.1 Continued CPC co-operation with the USPTO

Over the course of 2021, five batches of bilateral technical meetings were organised to harmonise classification procedures at the EPO and USPTO. These meetings aimed to establish common ground on classification practices, clarify the scope of classification groups, and work on CPC definitions.

To date, 183 CPC areas have been covered. This, in turn, revealed opportunities to improve the scheme and definitions, leading to a total of 55 CPC revision projects. In 2021, the EPO and USPTO published an impressive 216 revision projects, leaving just four projects in the backlog versus over 120 projects at the beginning of 2020. The goal of completing discussions on revisions within nine months of their request is now within reach.

Moreover, a new collaboration platform, the CPC Collaborative Environment (CPC-CE) was launched in December to enhance work-sharing and information exchange with the USPTO.

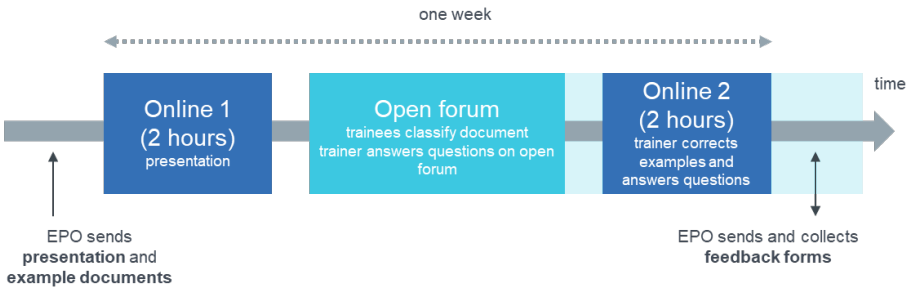
2.2.2 Increasing international CPC co-operation

In 2021, Morocco and Bulgaria joined the CPC family, which, at the end of 2021, now spans 32 patent offices worldwide, including 18 EPO member states and one validation state.

By the end of 2021, roughly 65 million documents were classified in the CPC. It is crucial that all users of CPC apply the CPC scheme in the same way. To promote the harmonisation of classification practices, the EPO set up an online training programme together with the European Patent Academy to help participants allocate classification symbols more accurately.

The programme involves online training sessions, as well as a virtual course room where training material, sample documents and an online forum facilitate discussions between course participants and EPO trainers. Over 500 examiners and classifiers from over 25 CPC offices participated in the spring and autumn sessions.

Figure 8: Breakdown of a typical CPC training session



Source: EPO

In response to requests from users, the EPO also started to include the CPC in its publication server, European Patent Register, European Patent Bulletin and EP Bibliographic Data (EBD) products in 2021. In December, the external classification portal (ECP) also went live under EPO's Single Access Portal. It offers pilot CPC offices a contact information service and a CPC reclassification service. More services will be offered in the future, and the ECP will be made available to all CPC offices.

2.2.3 Improving classification tools and processes at the EPO

There are three business processes related to classification at the EPO:

- **Pre-classification:** new filings are pre-classified into one of 1 400 broad technical fields. This is crucial to ensuring that the right file is treated by the right examiner in the right technical field.
- **Classification of new documents:** the bulk of classification work done at the EPO is driven by new patent documents, which either lack CPC classification symbols; or contain symbols that must still be confirmed by the EPO to meet our high-quality levels.
- **Reclassification**: the CPC and International Patent Classification (IPC) schemes are routinely updated and refined to keep up with technological developments. Documents in revised classification groups need to be reclassified accordingly.

2.2.4 Pre-classification using AI

In seeking to improve our pre-classification, an AI-based pre-classification engine built in-house was launched in June 2021. In the second half of the year, it was used to allocate over 50 000 EP and PCT applications to EPO examiners. Since December, the service has been used to route files in all three official languages.

One of the main advantages of this in-house tool is that it can be fine-tuned to meet the EPO's business needs, giving us complete control over a crucial core activity. This will allow us to decommission the external tool used for automatic pre-classification. A first evaluation of routing by the in-house tool revealed an increase in the quality of automatic pre-classification from 86% to 90%.

2.2.5 Classification: new integrated tools

Over the course of 2021, a range of activities were deployed to improve the quality of classification. They included a robust quality audit mechanism, coupled with improvements to document distribution, the handling of exceptions and the classification workload management interface.

In July 2021, a first version of a classification tool was integrated into the search platform ANSERA. The new tool allows examiners to classify their applications and documents found during the search in the same working environment. This marks the beginning of the integration of a full set of improved and new classification functionalities into the search environment.

2.2.6 Reclassification: new version of the electronic assistant

In January 2021, the first version of a new reclassification tool was released. This tool is an electronic assistant that offers reclassification administrators and colleagues working on related projects support in managing and handling reclassification activities. Overall, 12 reclassification projects used the tool in 2021 to reclassify 33 000 documents, helping to further reduce our backlog.

2.3 Quality metrics: timeliness and audit results

2.3.1 Timeliness

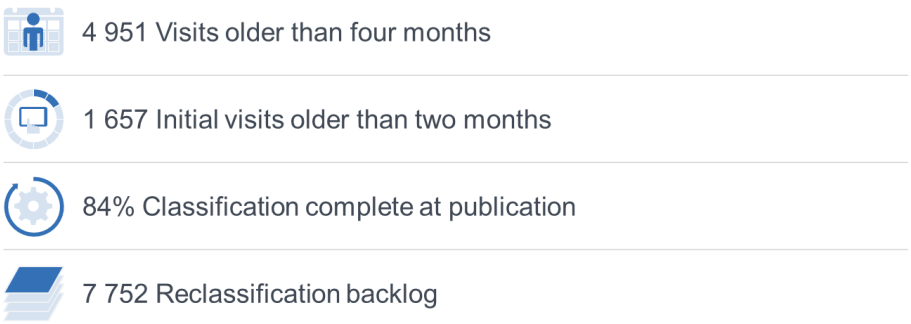
In 2021, the EPO received some 980 000 new incoming documents to classify, of which nearly all (970 000) were completed. For a search to be complete, the incoming prior art documents must be fully classified in the system before examiners start their search.

In the beginning of 2021, we slashed the time limit for full classification of documents from six months to four months after publication, and reduced the backlog of older, unclassified documents. Fully classifying the documentation within four months after publication enables us to ensure that our searches are complete.

To align with this strategy, examiners were instructed in 2021 not to start work on a search until this time limit was reached. Another aspect of classification is that the application itself is fully classified at publication. In 2021 our performance in this area improved to reach 84%, exceeding the 80% target.

The reclassification backlog ended the year at a record low of 7 752 patent families, down from 17 612 in 2020. On top of this strong performance, the 2021 classification quality audit remained positive, with a 93% compliance rate (falling slightly from 96% in 2020).

Figure 9: Breakdown of classification performance by key indicators



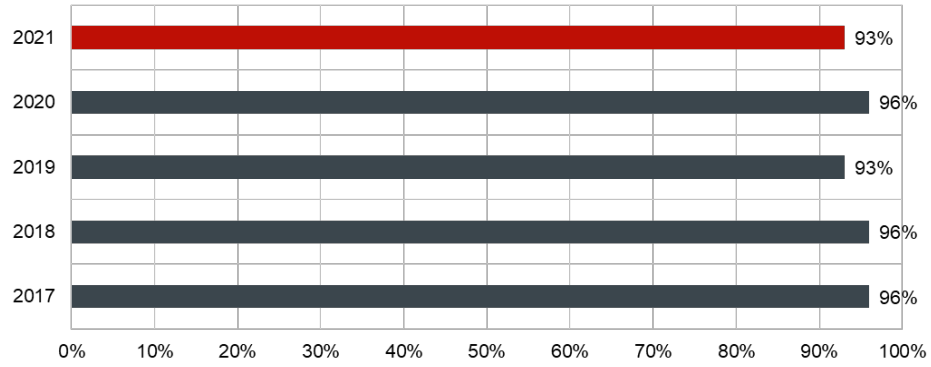
Source: EPO

2.3.2 Audit

The annual EPO audit of classification quality is carried out by a team of 12 classification auditors/examiners with extensive experience in this area. It monitors both the completeness of classification ("allocation approach"), as well as its quality for the search ("retrievability approach").

A sample of 480 documents classified in the first six months of 2021 was collected at the beginning of July. For 2021, the "allocation approach" result was 93% conformity with a confidence interval of ± 2%, while the retrievability score was 91% with a confidence interval of ±3%. In other words, classification quality remained high in 2021.

Figure 10: Five-year overview of classification conformity results



Source: EPO

3. Search

The EPO continued to invest heavily in digital search tools (ANSERA) in 2021 to make them even more advanced and further enhance quality (see "IT report 2021"). By offering highly trained patent examiners powerful search tools, along with extensive and fully classified prior art, the EPO provides a world-class service to applicants.

A high-quality search and written opinion are paramount to a high-quality granted patent. Ultimately, the aim of a search is to inform applicants of the full potential of the claimed invention and its patentability under the EPC. The combined search product must be delivered in a timely manner to give applicants ample time to consider whether or not to publish it.

The EPO also integrates feedback from external projects into our quality cycle and SP2023 programmes in a structured manner. In particular, input and lessons learnt from PCT-related external projects (e.g. harmonisation files with other European International Searching Authorities, EPO-CNIPA pilot on ISA files) are now systematically reported on and tackled in the quality cycle or at an operational level with a view to further improving our work products and services.

3.1 Getting the right search file to the right experts at the right time

In 2021, a pilot was launched which aims to provide the right file to the right examiner at the right time using a "pull mechanism". This enables a search examiner to pull a search file from an authorised technical field, while the remaining members of the search division are automatically allocated by the tool. Around one third of examiner teams are participating in the pilot, which offers the following advantages:

- close match between technical competence and subject matter claimed in the patent application
- the workload distribution process is perceived as fairer and more transparent
- examiners are empowered in managing their workload
- team managers have more time for managerial tasks because they no longer have to predict individual workloads and future availability
- automatic allocation of files removes the need for manual data entry for each file and division member.

In parallel to the "pull-allocation" pilot, the AI programme explored models aimed at identifying the most skilled examiners for a given file based on the full text of the application. These AI-based models are trained on the basis of the files handled by examiners in the past.

AI-supported skills mapping is crucial to getting the right file to the right division. This, in turn, will strengthen the consistency of our searches and may enhance the accuracy of the future digital file allocation system.

3.1.1 Supporting internal job mobility and digital file transfer

In 2021, the focus remained on internal job mobility and meeting workforce needs with an Office-wide rebalancing of talent and targeted recruitment where necessary.

After calls for interest launched in 2020/2021 through the digital talent marketplace, 190 examiners also started to work in a new technical field. Comprehensive training programmes were set up to support them, building on digital in-division collaboration for training.

A total of 14 staff were trained to assume new responsibilities or start working as formalities officers providing strong support in this area and ensuring a high-quality timely service. To ensure that our formalities officers have access to the highest quality of procedural advice, a total of eight formalities colleagues were appointed as experts last year and trained.

Job mobility was also reinforced by piloting a "skills framework" to identify and map internal talent, support workload redistribution, assess partial mobility assignments and develop career options.

Figure 11: Building a digital skills management platform

Source: EPO

To improve further the quality and timeliness of our search and examination products, the EPO continued developing its digital file marketplace (DFM) in 2021, where team managers can share workload with teams from neighbouring technical fields.

In-division collaboration and chairpersons are used in the marketplace to ensure that the right skills are applied to the right file for all files transferred via the marketplace. A targeted quality audit for a sample of these files is being developed to assure the same level of quality as for non-transferred files.

3.2 Quality metrics: timeliness, audit and user satisfaction

3.2.1 Timeliness

As mentioned above, a timely search report is essential to give applicants sufficient time to assess the full potential of an application, before taking the critical decision as to whether to proceed to its publication and examination. Although 2021 was a pandemic year, 90.4% of search reports were established on time against a target of 90% – with a (mean) average at 4.8 months from filing, representing a marginal increase versus 2020 (4.5 months).

This slight increase can be attributed to the instruction for examiners to delay the search on first filings until 4 months from priority, to ensure the availability of fully classified relevant prior art.

In parallel, a review of internal limit dates for European first filings allowed us to increase their timeliness to almost 84% delivered on time within six months in 2021, up from 60% in 2020 and marking a significant improvement. Overall, 95% of searches were sent to the applicant within 8.7 months from filing.

Historically, our different search products have had different targets e.g. six months for an EP direct filing, nine months for the searches conducted for our member states and for PCT first filing ISA work. This can be confusing for applicants. So, in 2021, the EPO took the ambitious decision to set six months as the goal for all search products, which is a major undertaking.

Over the next three years, national searches and PCT first filing ISA work will gradually be brought into line with the six-month objective for European first filings. Our first step towards this ambitious goal will be to set a target for these PCT ISA and national searches of eight months for 2022 (versus nine months previously).

Figure 12: Breakdown of search timeliness in 2021

Source: EPO

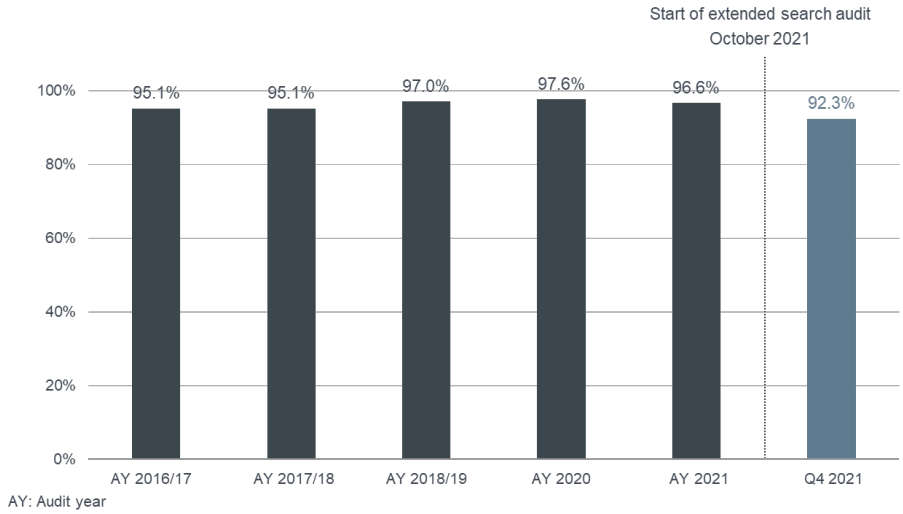
3.2.2 Audit

In response to user feedback and pursuing continuous improvement, the EPO made major improvements to its search quality audit in 2021. Following a successful pilot, from October 2021, the audit now takes an in-depth look at the written opinion, as well as at the search report.

Based on user input from stakeholder quality assurance panels, the search quality audit was extended with a view to improving completeness, correctness and consistency in a more targeted way. Looking more closely at the written opinion will not only help us to identify quality issues earlier in the process, it also marks a first step towards addressing the discrepancy between search and grant audit results.

Reporting on these figures on a 12-month rolling basis began in October 2021. This marks a real step forward in terms of identifying opportunities for improvement and helping us to deliver the quality that our applicants expect and deserve.

Figure 13: Five-year overview of Directorate Quality Audit search audit results



Source: EPO

Figure 13 shows the final quarter of results from the search audit. The figure of 92.3% is an estimated aggregated value based on a mix of the final quarter results under the new criteria and those of the three previous quarters under the old criteria. This first estimate indicates that the more stringent checks are impacting on the compliance rate. The information provided by this enhanced audit is already helping to design the roles within our ongoing pilot of an active search division, with a view to proactively identifying and rectifying any quality issues in written opinions before the search report is sent out.

3.2.3 User satisfaction

The EPO has embarked on a new path with regard to its User Satisfaction Survey (USS) where the entire end-to-end patent granting process is surveyed on a biennial basis. In the area of search, some 1 500 users were asked about the EPO search services. 77% of users reported being satisfied or very satisfied with EPO's search services. This is a better result than in previous years, mainly due to timeliness improvements in the search area with only 4% of users dissatisfied.

The redesigned USS opens up the possibility of free text input from the user community and the EPO received over 200 comments on search timeliness in 2021. Users requested even faster processing of first filings. As a result, the EPO reduced the time limit outlined above for national and PCT searches and set a target of eight months for 2022.

4. Examination

After completely digitalising the search workflow in 2020, the EPO continued to digitalise examination workflows in 2021. A total of 3 965 oral proceedings in examination were conducted via VICO in 2021 versus 2 525 in 2020 and fewer than 900 in 2019. The digital talent and file marketplaces were also fully exploited to rebalance available examiner capacity and workload, ensuring technically related examiner teams shared workload and collaborated on files.

4.1 Quality of substantive examination

The EPO has quality built into its patent granting process. Our robust legal basis (the European Patent Convention) features a unique element: namely an "examining division" of three examiners, which is responsible for the examination of the patent application. But, as in any system, it is useful to regularly review the distribution of roles and responsibilities to ensure they are still fit to ensure a high-quality outcome.

To encourage a shared approach to quality responsibilities, we reassessed the skills and aptitude of chairpersons of examining divisions for carrying out their tasks. The role of team managers in checking the quality of examination was also clarified and harmonised.

Objective data is crucial to determining where to target quality improvements. During 2021, all operational directorates were given data packages featuring detailed quality feedback at grant stage. This helped managers to better understand potential quality issues at a team level and identify targeted actions. In meetings, our users stated that they would like to see greater consistency in our practices and application of the EPC.

In response, the project on initial filing errors was extended, using data analysis to track the consistency of our outgoing objections. With artificial intelligence (AI) and smart text mining algorithms, objections were identified and visualised in a data set spanning several years and almost 1.6 million EPO outgoing actions.

The data harvested gave us an initial insight into how consistently our examiners apply the EPC. It also helped us to identify areas where targeted dialogue with users could lead to further improvements in efficiency and timeliness on both sides in the future.

Lastly, a first "Quality Dialogue" meeting was held between Boards of Appeal chairs and EPO delegates in November 2021. The aim was to evaluate how feedback from the second instance (Boards of Appeal) can also be used to improve the quality of examination and opposition. The meeting revealed scope for improvement in the logic and focus of EPO reasoning, which helps to understand where improvements can also be made in examination.

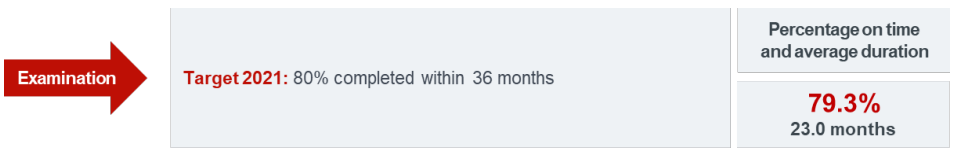
4.2 Quality metrics: timeliness, audit and user satisfaction

4.2.1 Timeliness

The timeliness of our examination products continued to improve – with 79.3% on time in 2021 compared to 74% in 2020. The average time for examination was just 23 months. The overall time from filing to grant also improved for all our products – for example for European first filings the overall duration fell from 44.8 months in 2020 to 43.3 months in 2021.

Last year, concerted efforts were made to improve the consistency of our response time by decreasing the time pending since the last Office action. Thanks to highly effective collaboration across closely matched technical teams, the number of files pending over 20 months since the last action decreased by 7 500 over the course of 2021. This had a hugely positive impact on service from a user perspective.

Figure 14: Examination timeliness in 2021

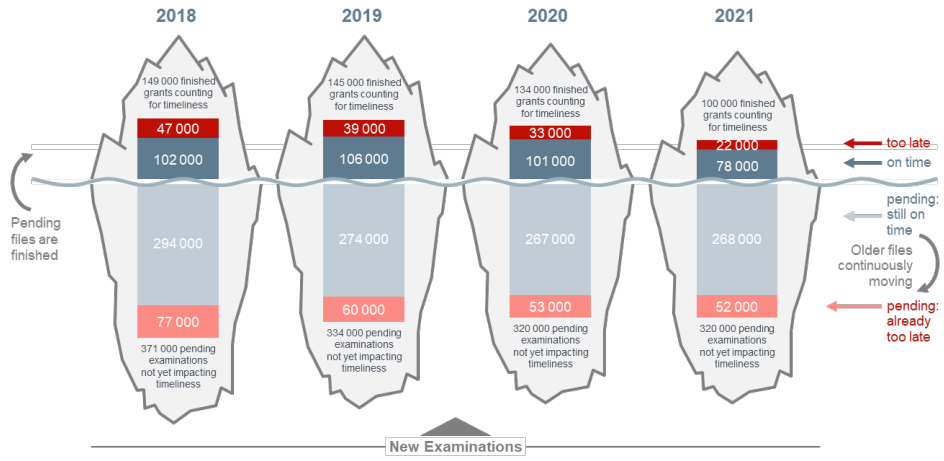


Source: EPO

Solid headway was also made towards tackling the remaining backlog of old examination files. Here, 95% of examinations were conducted within 61.3 months in 2021, versus 90 months in 2018. Thanks to the success of these actions, only 15.7% of the files in our examination stock were older than three years by the end of 2021, down from 17.3% in 2020, 19.3% in 2019 and 24.2% in 2018.

In other words, over 84% of the examination stock is constituted by files that can still be produced "on time". This is clearly good news for applicants seeking consistency of timeliness across the EPO's services, but also shows that there is still some way to go.

Figure 15: Examination timeliness versus stock within 36-month target

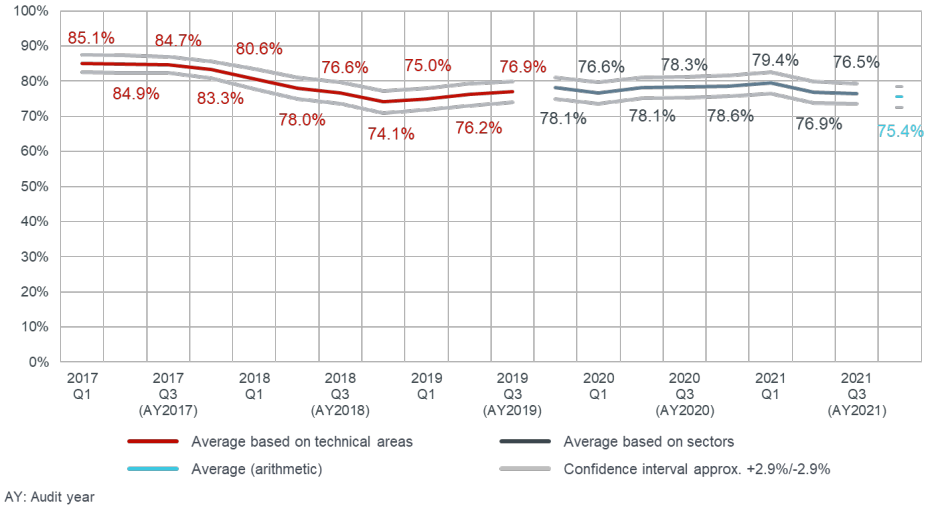


Source: EPO

4.2.2 Audit

In 2021, Directorate Quality Audit (DQA) measured that the compliance rate of proposals to grant remained around 75.4% with a ±2.9% confidence interval.

Figure 16: Grant audit results (based on a 12-month rolling average)



AY: Audit year

Source: EPO

Clearly, this figure is below the 2021 target (85%), leaving scope for improvement. It is worth noting that the difference of around 20% between the search and the grant figures at the end of the quality year (Q3 2021) was largely due to the use of very different criteria to measure quality at search and grant.

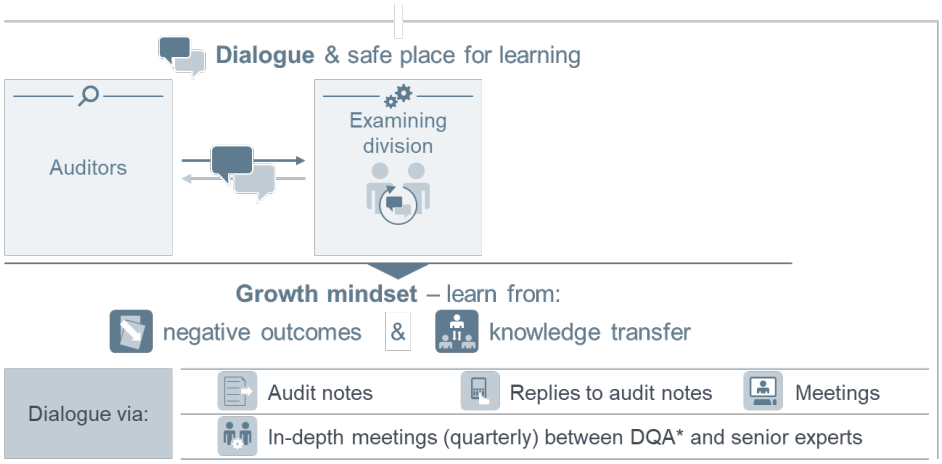
The search criteria emphasise the pertinence and relevance of prior art documents found by the examiner, whereas the grant criteria check the compliance of the specification with key patentability requirements of the EPC.

It has become evident that measuring and reporting on the outcome of quality checks alone does not raise quality levels. So in 2021, with a larger cohort of auditors, the EPO started to develop a systematic approach to providing more granular, detailed feedback on audit outcomes to support a continual learning process.

This was achieved by holding focused quarterly in-depth meetings between DQA, senior experts and other operational quality stakeholders. The meetings are used to review the reasons for non-compliance and identify potential needs for harmonisation or training. In addition to yielding specific recommendations for targeted operational quality actions, the meetings serve as learning opportunities for both sides, leading to a deeper, mutual understanding of high quality.

Another key step taken to amplify the learning effect of audit was to foster an open dialogue between auditors and examining divisions. 2021 was the first full year that this new process was applied. If a division disagrees with the findings of the audit, a meeting is held to discuss the case before the audit is closed.

Figure 17: Overview of audit dialogue

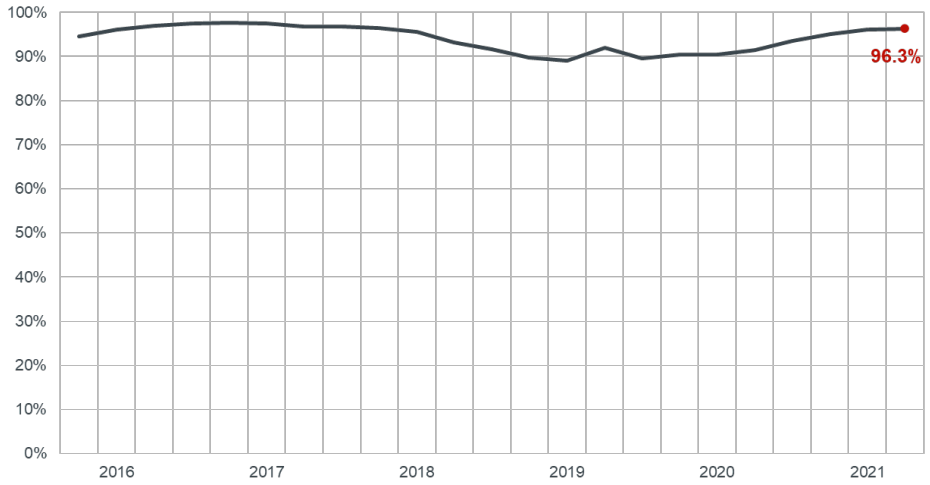


DQA*: Directorate Quality Audit

Source: EPO

Overall, the new dialogue process has been effective in improving the agreement rate between the auditors and the divisions, which hit a high of 96.3% in 2021.

Figure 18: Six-year overview of agreement rates between internal auditors and examiners for grant quality audits



Source: EPO

4.2.3 User satisfaction

The 2021 survey results relating to examination, which comprised some 2 000 interviews, also set a benchmark for user satisfaction within the area of examination and publications.

In 2021 74% of our respondents were satisfied or very satisfied with our examination results. It is worth noting that 88% of our users were satisfied or very satisfied with the EPO's final actions and publication.

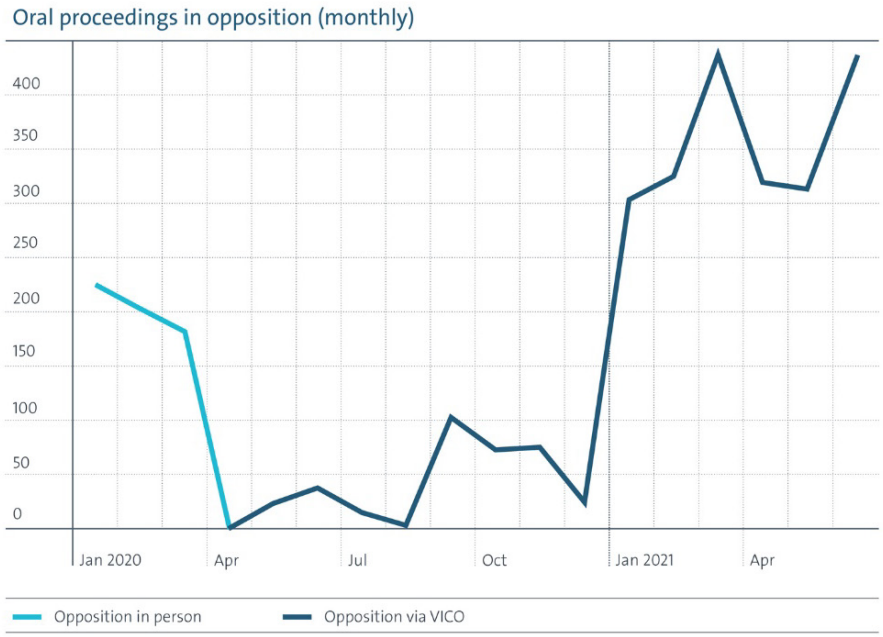
Targeted actions to improve consistency of practice and timeliness in 2021 were a direct response to feedback from users and are designed to boost their satisfaction with our services in examination.

5. Opposition

Continuing to deliver access to justice during the pandemic remained a top priority for the EPO in 2021. The EPO launched a pilot on conducting oral proceedings in opposition via videoconferencing (VICO) back in May 2020, which was initially foreseen to run until 31 January 2021.

In the light of developments in the pandemic situation in Europe, however, the EPO subsequently decided to extend the pilot project until 31 December 2022 and to bring in the presumption that oral proceedings would be conducted via VICO. By the end of 2021, a total of 3 961 oral proceedings in opposition were held via VICO, versus just 358 in 2020.

Figure 19: Overview of oral proceedings in opposition in 2020 and 2021



Source: EPO

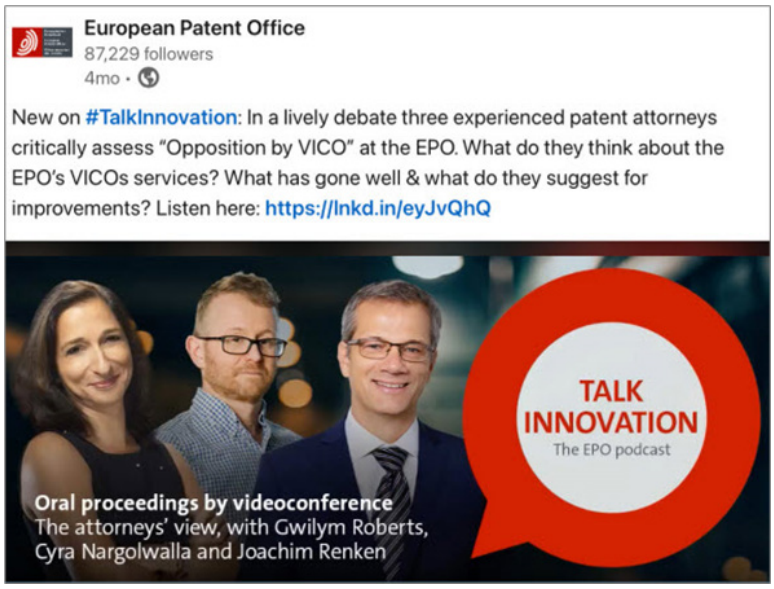
In September, the EPO launched a user survey on its pilot project for oral proceedings by VICO before EPO opposition divisions. The survey generated 700 responses, with over three quarters of respondents having already participated in at least one oral proceedings in opposition via VICO.

Their feedback was very encouraging. Two thirds of respondents assessed the provision of oral proceedings in opposition by VICO to be good or very good, while less than 20% expressed a negative opinion.

Reduced travel time, lower costs and the positive environmental impact of less travel were just a few of the benefits cited by users. These advantages were coupled with massive gains in transparency, with an unprecedented number of by the public (over 2 000) to attend virtual oral proceedings.

In response to suggestions to improve the videoconference proceedings the EPO introduced several improvements. To better support its users, the EPO set up a special IT support desk to rapidly respond to technical problems during oral proceedings, as well as providing test call facilities prior to them. Our training offer was also expanded with new e-learning modules designed to help patent professionals get the most out of the new options offered by VICO. In total, over 7 000 users took part in EPO training courses or accessed online training material in 2021.

Figure 20: "Talk innovation" podcast with three patent attorneys



Source: EPO

2021 also saw other improvements to opposition procedures. In 2019 the EPO started to offer consolidated lists of prior art cited by parties, together with an identifiable indexing for opposition files in the European Patent Register. The quality of this service increased from 55% to over 80% in 2021. The division includes the consolidated list in the communications for easier reference and the opposition parties can use the Register more efficiently for consulting cited prior art in these files.

5.1 Quality metrics: timeliness, audit and user satisfaction

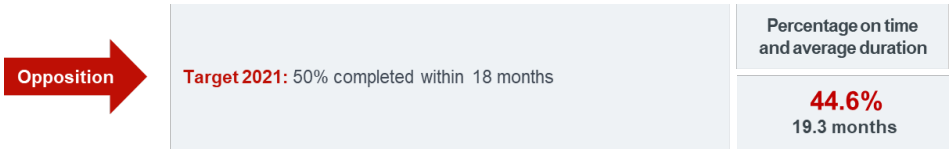
5.1.1 Timeliness

At the end of 2016, the EPO launched an "Early Certainty in Opposition" initiative. Its goal was to finalise oppositions within 18 months from the expiry of the nine-month opposition period following a published grant.

The EPO was well on track to achieving this target until the outbreak of the pandemic in March 2020. Delays naturally occurred as oral proceedings could no longer be conducted onsite to safeguard the health of our staff and users.

From the start of 2021, the presumption of oral proceedings via VICO meant that solid progress was made in cutting down the backlog caused by the pandemic. In 2021, 44.6% of our oppositions were concluded within the 18-month timeliness goal resulting in an overall mean average timeliness of 19.3 months (for all oppositions). By December 2021, the opposition stock had almost returned to pre- pandemic levels. As the EPO continues to conduct a high number of oral proceedings by VICO, opposition timeliness is expected to improve further in 2022.

Figure 21: Opposition timeliness in 2021



Source: EPO

5.1.2 Audit

In addition to its annual quality audits in classification, search and proposals to grant, the Directorate Quality Audit will carry out quality audits of opposition and refusals as of 2022 in alternate years – starting with opposition.

In the absence of a quality audit of opposition in 2021, user feedback and the results of our own in-process checks identified several areas requiring further harmonisation in opposition. These included fine-tuning how oral proceedings via VICO are conducted to ensure, for instance, regular breaks, as well as improving documentation updates, the handling of late submissions of requests and documents.

Checks across EPO sites and divisions were implemented in 2021 to improve harmonisation in all these fields. The form used to provisionally inform the public of the outcome of the oral proceedings was also updated to give a more complete picture of the result. As far as our internal checks on the quality of opposition decisions are concerned, the results were above 90% in all aspects measured.

5.1.3 User satisfaction

The 2021 user satisfaction survey results indicate that 76% of users were satisfied or very satisfied with the opposition procedure. Given that some 500 users were surveyed – spanning both successful and non-successful parties – this figure is encouraging.

According to constructive feedback from the survey, we need to ensure consistency between the minutes of oral proceedings and decisions, which is checked as part of the internal quality process.

6. Re-designing and simplifying the patent granting process

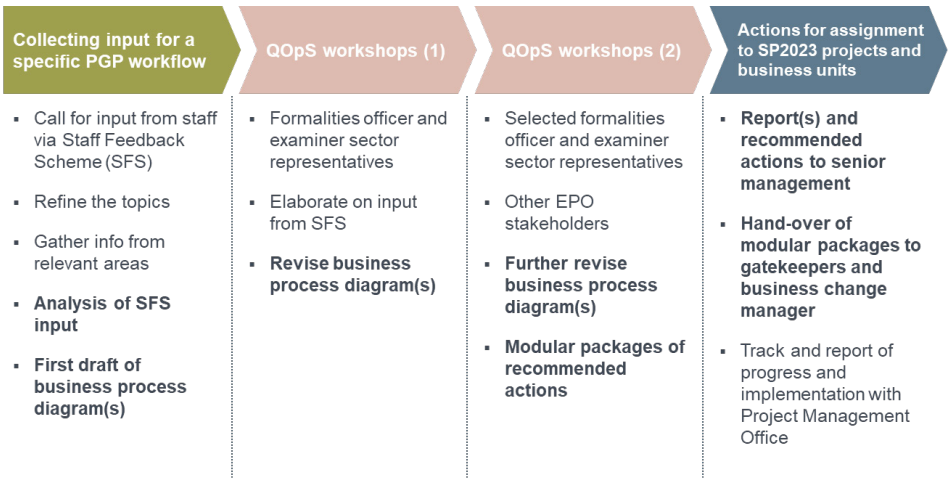
Our experienced, highly skilled staff are an invaluable source of ideas. In 2021 we conducted quality and operability studies to enhance our patent granting processes by leveraging their expertise.

Staff were encouraged to question every aspect of their workflows with a view to making them simpler and more efficient. In short, they were asked to design out errors and build in quality. Calls for contributions generated around 1 000 responses, with around 250 formalities officers and examiners participating in brainstorming sessions on how to streamline their workflows.

The quality and operability studies grouped suggestions into eight different categories, ranging from modernising the legal framework to creating a digital file for life. The first three proposals were approved in 2021 and were piloted in 17 operational teams as of mid-March 2022.

The remaining proposals are aimed at strengthening how the search and examining divisions function early in the procedure, as well as promoting clarity and consistency in the EPO's communications with applicants to boost efficiency and improve accuracy.

Figure 22: Overview of quality and operability studies (QOpS) consultation



Source: EPO

A model structure was developed, featuring an ordered set of headlines for communicating the patentability analysis of an application. The same structure was also developed for drafting search opinions, communications and summons to oral proceedings. This template was accompanied by guidance for divisions to consider when completing the content for each header, without limiting how reasoning is drafted.

This approach strikes a healthy balance between setting a coherent, consistent communication standard for the EPO, while leaving room for individual drafting style. The goal is to produce more predictable communications that are easier to understand and navigate.

Aiming for consistent standards in communication will also make it easier for users to understand the full potential of their patent applications. A carefully monitored group of operational teams are piloting these templates with a view to a wider rollout by the end of 2022.

7. Sharing and investing in knowledge and skills

Upskilling and knowledge transfer not only fosters professional pride, excellence, efficiency and engagement, but also has the positive effect of improving quality.

Over the years, many informal groups with specialist technical or legal knowledge have sprung up in the EPO. An internal survey in 2021 revealed the existence of some 80 informal, specialist knowledge-sharing groups in the core business alone.

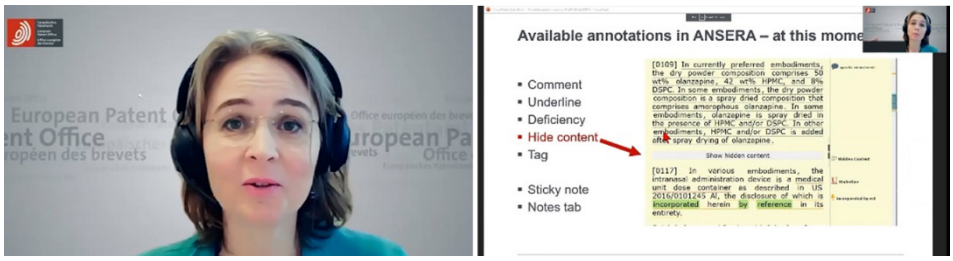
To integrate these groups into the EPO's on-the-job learning landscape, a broader, common framework for them was launched with new communities of practice. These communities can operate, self-administrate, interact with other groups and grow their membership, as well as deepen the knowledge of their experts. By fostering knowledge-sharing, engagement, alignment with the Office's goals, they will promote the harmonisation of practices across the EPO.

Another peer-to-peer learning network that is well-established in the EPO is Continuous Knowledge Transfer (CKT). The CKT central team consists of 17 colleagues from across the patent granting area. CKT's main goal is to promote a culture of knowledge sharing at the EPO, by providing tools and services to create a continuous learning environment. In recognition of CKT's value, its reach was expanded in 2021, with over 15 Office-wide learning events organised in 2021.

It continued to act as catalyst and facilitator of knowledge sharing on key topics, complementing other initiatives including the Talent Academy, to support change management. The hot topic in 2021 was digital transformation and how to optimise quality and effectiveness using the new digital tools that are central to new ways of working.

The ANSERA search tool used by our examiners was the subject of almost 160 peer-to-peer events, including sessions like "ANSERA Viewer and Annotations", organised by CKT and attended by over 900 participants. More than 150 sessions were also set up to help familiarise colleagues with the use of advanced functions on iPads.

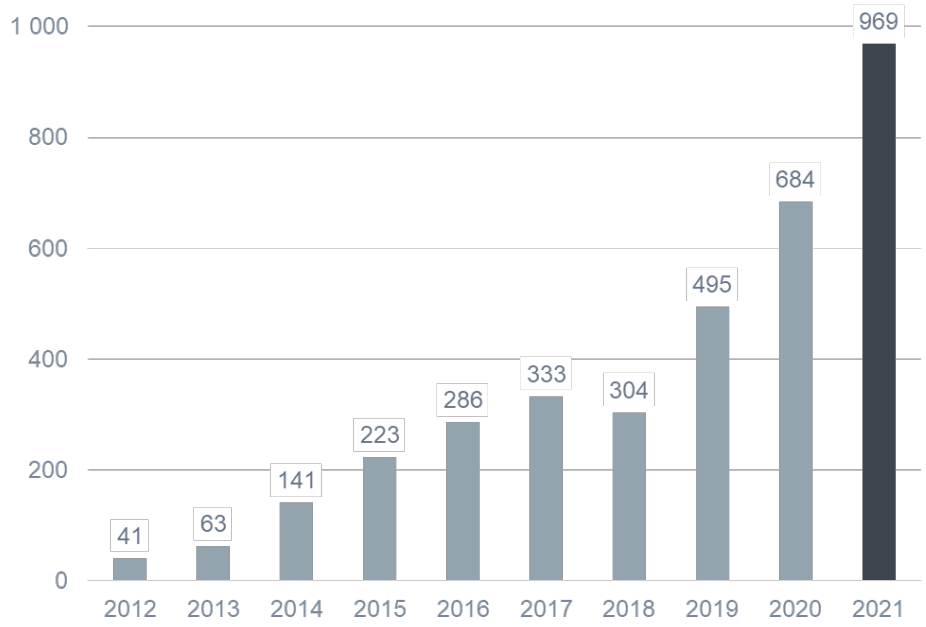
Figure 23: Learning session on ANSERA viewer and annotations



Source: EPO

At the beginning of December 2021, the focus shifted to ANSERA Pre-Search, with a whole week dedicated to tips on how to use this new tool. CKT events tend to be small and local, with a specialist explaining or sharing expertise with a group of peers.

Figure 24: Number of CKT events per year



Source: EPO

Collaboration is essential to improving quality. Sharing ideas and suggestions on how to best search, or views on tricky legal or technical questions not only improves the quality of the end product, it also enhances teamwork and confidence in decision-making. The SP2023 Enhancing Collaboration (ECo) project continued to grow fast in 2021. Starting with 65 examiner teams in January, there were over 150 official ECo teams by the beginning of October, when ECo was transformed from a project into a permanent part of the core business.

Some 20 ECo Exchanges and other events took place in 2021, where new collaborative ways of working were presented to the ECo community. As a result, the ECo Store, the EPO's repository for sharing collaborative ways of working related to the patent granting process, grew rapidly.

In September, the ECo Store was migrated to a new platform that is easier to navigate. The number of new collaboration methods on its digital shelves tripled to over 30 by the end of 2021, including three new methods for formalities officers' work.

A number of teams have started to customise established practices such as search jams, while others have started to combine collaboration methods. Some collaboration methods were also tried out in the corporate business areas for the first time in 2021.

Figure 25: Screenshot of the ECo Store

Source: EPO

With so many sources of case law, guidelines and practices, it is vital that the most relevant, up-to-date source of information is routed to our examiners and formalities officers when they need it. A new menu, built into the EPO's digital Patent Workbench platform, is used by examiners, formalities officers and managers. It offers a straightforward way to contact expert individuals or groups or communities of practice, facilitating access to the internal knowledge resources of the Office and related legal and training material.

During 2022, the system will be further developed and the Single Legal Source database, comprising the entirety of EPO's legal knowledge, will be integrated into the new menu. This will enable searches for pertinent legal framework information, including the guidelines for examination, from directly within the Patent Workbench, completing the functionalities of this powerful environment.

Figure 26: Boards of Appeal lectures on substantial procedural violations

Source: EPO

To harmonise EPO examiner work with the case law coming from the Boards of Appeal, learning opportunities in 2021 also included a series of eight lectures on recent case law. The lectures focused on developments that may potentially impact the quality of our decisions, both in examination and opposition. The live-streamed lectures open to all EPO staff were made available as recordings after the event.

The lectures were given by members of the Boards of Appeal or national judges and followed by a lively chat. They proved highly popular among staff, with the number of attendees ranging from 400 to 1 200 for any given event.

Figure 27: Quality week event on legal and procedural matters

Source: EPO

To stimulate the internal dialogue on quality and promote harmonisation, three "Quality Weeks" were organised in 2021. Each week focused on a specific working area by covering the search and grant procedure, as well as legal and procedural matters.

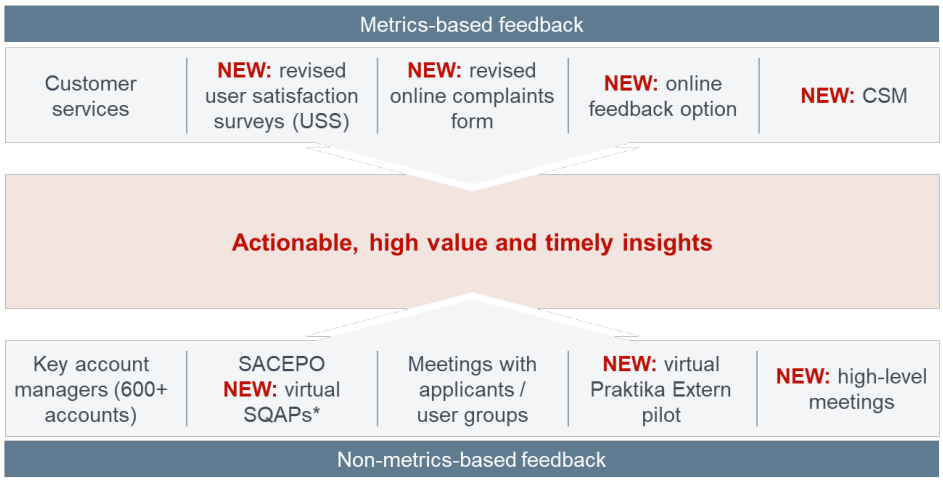
With an average attendance of 400 participants from across the EPO, the sessions were designed to be interactive and trigger debate. All of the presentations given were recorded and now form part of the online training platform for examiners and formalities officers.

8. Quality through dialogue with applicants

Direct feedback from users is vital to the EPO's efforts towards continuous improvement of its products and services. Exchanges with applicants are not only a fast track to even higher quality, they also help us to make tomorrow's global patent system even stronger. In 2021, the EPO ramped up its user consultation by broadening its scope and increasing its frequency.

In practice, that meant organising online meetings with applicants, conducting in-depth user surveys and expanding advisory committees such as the SACEPO Working Party on Quality.

Figure 28: An overview of user feedback channels



Source: EPO

8.1 SACEPO Working Party on Quality

EPO's user-centric approach to quality is reflected in the new format of the SACEPO Working Party on Quality. In 2021, the working party tripled in size to 75 IP experts from 48 countries now including representatives from all continents.

Organised into four geographical regions, the working party now covers nearly all countries with patenting activities and all technology fields. Holding working party meetings twice a year ensures a full consultation with a broad spectrum of users. This forum for presenting and discussing quality topics helps us ensure that the diverse needs of all our users are fully reflected in improvements to our services.

8.2 Reaching out to applicants

To ramp up direct exchanges with users, the EPO organised 12 high-level meetings with large applicants from the IP5 region in 2021. These meetings focused on issues like patent filing strategies and best practices, as well as selected topics related to the patent granting process.

The discussions generated valuable user feedback – at both a strategic and an operational level – on the quality of incoming applications and collaboration during the various stages of the patent granting procedure (e.g. oral proceedings in opposition) and our focus on improving consistency in our practice.

The EPO's senior managers also met with three SMEs for an exchange regarding their views and needs with a view to improving the EPO's support and online services for smaller companies.

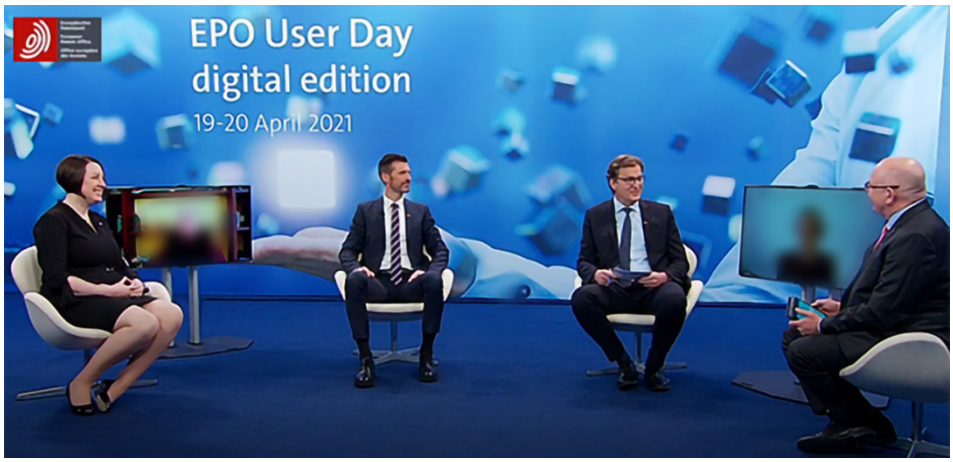
Figure 29: User outreach highlights in 2021

Source: EPO

On top of a series of events held for interested users in October, over 200 special training sessions in Online Filing 2.0 were given by key account managers.

Another highlight of 2021 was the EPO's annual User Day, a fully digital event attended by over 2 300 participants. The event covered the EPO's role in the race against the pandemic, headline trends in patenting, improvements to our electronic tools and changes in the pipeline for EPO users.

Figure 30: Panel discussion at EPO User Day 2021 with participants (left to right) Laura Smith-Hewitt, Yorick Lostetter, Niclas Morey and moderator Markus Thieme



Source: EPO

Our Praktika Extern programme has always provided a rich source of ideas to improve our services. It also allows us to improve our understanding of the applicant side of the patent grant process. With the pandemic still affecting travel and physical meetings, this programme went digital in 2021. A total of 12 examiners and formalities officers were hosted by companies and patent attorney firms in a virtual version of the Praktika Extern, resulting in rich exchanges and a wealth of user feedback.

9. Measuring quality: bringing different viewpoints together

9.1 Finding even better ways to measure quality

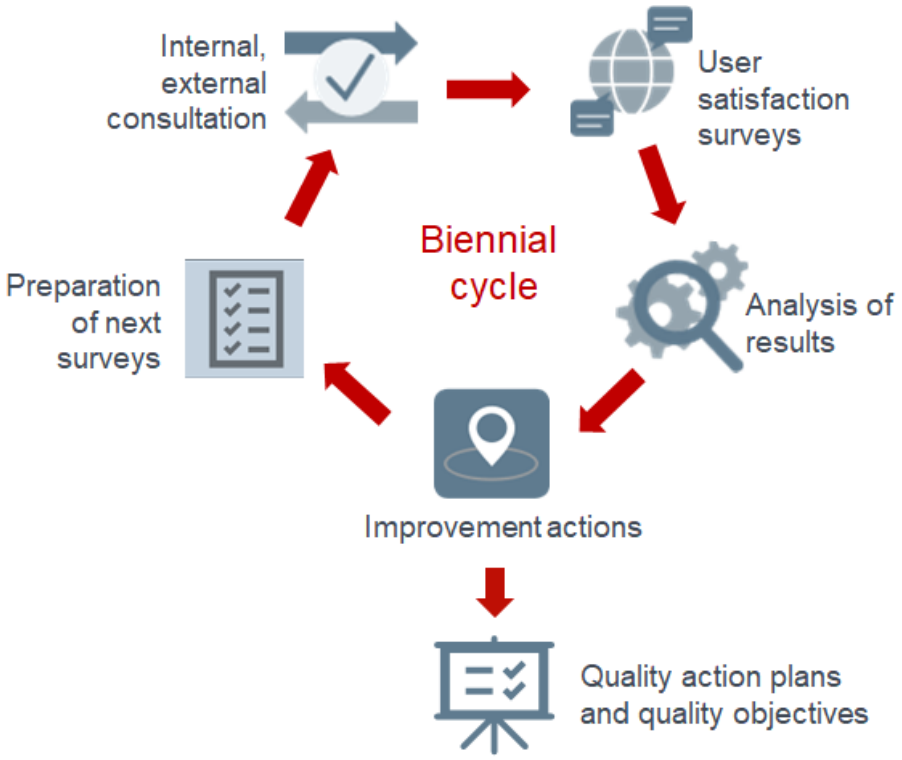
Our main key performance indicators (KPIs) for quality are our timeliness targets, our Directorate Quality Audit (DQA) figures and our user satisfaction survey results, which are complemented by external measures such as ISO.

Ambitious improvements were targeted in each of these indicators in 2021. With regard to timeliness, we responded to user feedback by tightening our search timeliness and improving the consistency of timeliness in examination.

Investing more resources in our DQA audit process also allowed us to increase the scope and depth of the audits conducted, while enhancing the feedback and dialogue process.

As for the user satisfaction survey, a complete redesign gave it a far broader scope, ensuring that users were asked the right questions on topics that matter to them. When it reported back in April 2021, it was the most comprehensive user survey carried out by the EPO to date.

Figure 31: User satisfaction survey cycle



Source: EPO

With a record of over 6 000 interviews conducted, the survey provided valuable insights into the opinions of the user population worldwide. Its results showed consistently high satisfaction scores at all stages of the user journey through the patent granting process.

With its two-year cycle, the survey programme allows sufficient time for the improvements to bear fruit, while minimising user fatigue. In 2022, users at the SACEPO Working party on Quality will be consulted for the next 2022-2023 cycle.

In 2021, the surveillance audit of the Quality Management System of the Patent Granting Process under ISO 9001:2015 rendered full ISO 9001 compliance, without a single recommendation for improvement made by the external auditors.

9.2 Stakeholder quality assurance panels: developing a shared view of quality

In seeking to take our quality to the next level we recognised that – despite all our attempts to define and measure quality – something was missing. Each of our measures gave us a snapshot of quality from one perspective. These viewpoints needed to be brought together to forge a consensus on areas for improvement, and whether improvements were indeed emerging over time.

To achieve this, new stakeholder quality assurance panels were set up back in 2019. The panels covered a diverse set of technology areas from health, chemistry, electronics, mechanics to digital information and communication. Each was led by two European patent attorneys nominated as "assessors" by the EPO, epi and BusinessEurope.

In October 2021, the panels were repeated, with 12 external assessors focusing on inventive step (Art. 56 EPC) and clarity (Art. 84 EPC). Based on detailed reports prepared by the assessors, SACEPO members convened online in break-out workshops to critically analyse a series of European patents and discuss EPO practices, as well as suggestions for improvement.

The stakeholder quality assurance panels give EPO experts a deeper understanding of how our users perceive our work and what matters to them. Their input confirmed that strengthening the consistency, harmonisation and predictability of our patent services will retain and build user trust and confidence in the EPO as a reliable intellectual property partner worldwide.

The feedback has helped us to set our 2022 quality priorities, which will focus on pilots for active search divisions, structured communications and optimised added-matter checks. These panels mark a major step forward in developing our shared understanding of quality.

In 2022, the EPO will consult SACEPO on developing the panel concept further, to make it the gold standard in assessing quality. With an initial focus on grant quality, this approach will be extended to cover every step of the patent granting process, encompassing both procedural and substantive issues.

10. Conclusion and outlook for 2022

This is the EPO's sixth annual Quality Report, outlining our performance in quality and the steps taken in 2021 to improve it. We hope it demonstrates our commitment to continual improvement and achieving excellence in all our products and services. Reaching that goal obviously depends on our ability to adapt flexibly to today's fast-changing innovation environment.

Over the course of high-level meetings held with both large applicants and SMEs in 2021, it became clear that many were aligning their structure around the 14 EU Industrial Ecosystems and highlighting their contribution to the UN Sustainable Development Goals (SDGs). Looking at our own organisation, we increasingly saw how technology was cutting across the traditional, sector-based structure of our core business.

Figure 32: Restructuring of core business to highlight the EPO's contribution to society and industry

Technology communities	Industrial ecosystems	UN Sustainable Development Goals
Materials and Production	energy intensive industries, retail, textile	
Agri-Food	agri-food	
Electronics and Physics	electronics	
Health	health	
Infrastructure and Mechanics	construction, retail	
Energy	energy-renewables	
Mobility and Space technologies	aerospace and defence, mobility – transport – automotive	
Digital	electronics, digital	

Source: EPO

In autumn 2021, our examiner teams were invited to look at the EU Industrial Ecosystem categories and the UN SDGs to see where their technical fields fitted best and could make the greatest contribution. Eight categories – or technology communities – were identified, as shown in the diagram above. Each of these technology communities matches one or more industrial ecosystem and the SDGs.

On 1 April 2022 each of our examiner teams started working within one of these technology communities, bringing together teams working on the same technology from across our sites and aligning more closely with the structure of our applicants. Beyond improving our collaboration, consistency, timeliness and quality, this change will also help to demonstrate the importance of patents in finding solutions to the global challenges facing society.

In 2021 substantial progress was also made with our new Patent Quality Charter. The charter sets out the EPO's commitment to excellence in quality and the actions taken to honour this commitment. It stems from a broad-ranging consultation with internal and external stakeholders aimed at aligning user quality perceptions. Exchanges with our member states and users have helped us to finetune the new charter, which will be finalised in 2022.

Both the new charter and this report reflect the EPO's firm belief that transparency is crucial – not only when it comes to improving quality, but also in terms of reinforcing the credibility of the global patent system. This report offers a detailed overview of where the EPO stands on quality, and where it is heading.

Above all, it highlights that the pursuit of excellence is both a shared destination and a shared journey. Ultimately, working together is the only way to achieve the high-quality patents needed to drive innovation and build a more sustainable future.

If you want to join the conversation on patent quality, or share your views on this report, please contact us at quality@epo.org.