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SUBJECT: Annual Work Plan 2021

SUBMITTED BY: President of the European Patent Office

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SUMMARY

This annual work plan (AWP2021) gives direction and focus to the work that the EPO intends to undertake in 2021 to advance on the strategic goals. It outlines the main initiatives and activities under the five SP2023 goals and builds on the work done in 2020 to meet the challenges set.

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Annual Work Plan **2021**

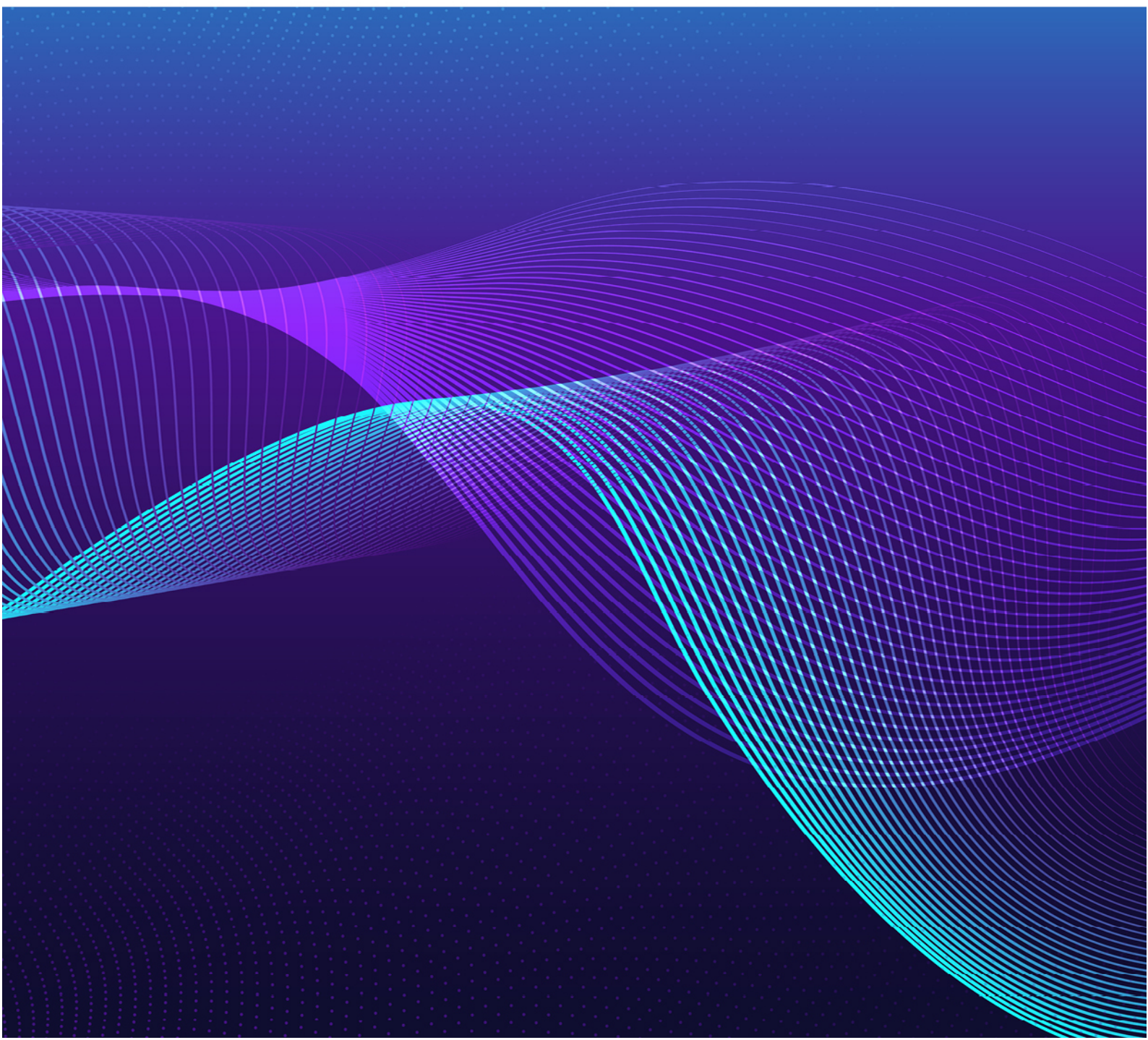


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Introduction

The EPO's second Annual Work Plan outlines how the Office will build on the achievements of 2020 by driving digital transformation and promoting new, more collaborative ways of working to deliver even higher quality products and services.

The COVID-19 pandemic drastically changed the EPO's daily operations. In the short term, the pandemic called for swift, effective solutions to help the Office adapt to a rapidly changing situation. To protect the health and safety of EPO's staff, measures were introduced to allow them to work from home.

In many cases, this meant massively accelerating SP2023 activities, including the deployment of laptops to all staff and the roll-out of paperless workflow for search. As a result, the percentage of EPO staff working remotely and digitally rose from a pre-crisis level of around 30% to over 80% within a matter of weeks.

To ensure business continuity, the Office also switched to conducting all oral proceedings in examination via video conferencing (ViCo) by default at the beginning of April. In early May, a pilot was subsequently launched providing parties to opposition proceedings with the ViCo option too. Despite significant technical improvements, however, the uptake rate of the pilot remained low, creating a growing backlog of opposition cases and negatively impacting timeliness. To ensure access to justice, the Office decided to make ViCos the default option for oral proceedings in opposition as of 4 January 2021 until the pilot ends on 15 September 2021.

Above all, 2020 has clearly highlighted the importance of an agile approach to planning and resource allocation in today's dynamic environment. The Office needs to be in a position to re-prioritise deliverables at short notice.

In a "lessons learnt" exercise after the first year of implementing the Strategic Plan 2023, the Office conducted a comprehensive review of the 150 projects defined to date. Going forward, the Office is focusing on co-ordinating all of its activities to prioritise the delivery of its strategic goals. In this context the delivery pipeline management concept was born.

New delivery pipelines defined around the Office's digital transformation, will help it to implement the Strategic Plan even more effectively in 2021. Essentially, these pipelines provide transparent timelines for the projects and their deliverables. This will help the Office to prioritise the most pressing areas for action, ensure maximum transparency and alignment between projects and minimise any overlaps.

In view of the rapidly evolving business context, the EPO's Annual Work Plan for 2021 (AWP2021) is also a blueprint that may evolve over time. Although the Office's goals remain the same as they were when the Office began implementing the Strategic Plan (SP2023) back in mid-2019, the outbreak of COVID-19 has radically changed the Office's operating environment in the meantime.

From a long-term perspective, the pandemic also highlighted the need to review the implementation of SP2023 through the lens of COVID-19. In view of the large-scale shift to teleworking, the EPO's buildings policy in particular clearly requires revisiting.

The Office is still exploring the implications of changes resulting from the pandemic and what a "new normal" way of working could look like. In September the Office gave staff an opportunity to express their views and preferences in an Office-wide survey on "Shaping the new normal".

The survey results, along with input from other stakeholders, will feed into a strategy document – *Towards a New Normal* – which will present the strategic direction of the organisation, in light of the changes brought by the pandemic.

This strategy for transitioning to the "new normal" will be presented to the Administrative Council in March 2021. In the meantime, this ambitious work plan sets out how the Office will continue to advance towards its goals, as its vision of a "new normal" begins to emerge.

Execution of SP2023 in 2021

Goal 1 – Build an engaged, knowledgeable and collaborative organisation

Talented and engaged staff are a key asset for any organisation. To attract and retain top talent, AWP2021 covers a wide range of measures in several different areas.



Attract talent

Given the outbreak of COVID-19 and the expected negative economic impact, the Office has implemented a cautious approach to management of staff and resources. External recruitment has been put on hold, with exceptions in areas where internal recruitment efforts have not proven fruitful and where a strong business case could be made.

Meanwhile, a greater focus has been placed on **internal job mobility**, allowing specific areas to fill their recruitment needs through a rebalanced allocation of talent Office-wide: 48 staff members have been trained to start working as formalities officers and 136 examiners have started to work in a new technical field, following calls for interest launched in 2019.

Looking ahead to 2021, internal job mobility will be reinforced by developing tools to identify and map internal talent, support workload redistribution and monitor and value partial mobility assignments. In addition, a review of the Office's career paths is planned, with each path giving access to internal and/or external mobility tracks, thereby providing development opportunities for all.

Despite the current focus on internal recruitment, maintaining a strong position as an employer of choice will need to continue, and ensuring the recruitment of the right talent still remain a priority. It is crucial for the sustainability of the Office as a leading knowledge-based institution.

In the current economic uncertainty, the Office can expect to see a rich landscape of talent looking for new opportunities. The Office will therefore use this period to **build up talent pipelines**. Strong candidate relationship management will be developed to ensure the right talent is available when the Office needs it.

Special focus will be placed on **digital tools for early talent engagement**, such as augmented reality. These tools will help leverage the population of passive candidates and promote the EPO in all member states to foster diversity.

However, EPO's employees are also promoters of the Office, and they and their stories will be at the centre of more transparent, authentic communication in 2021. This will build on the new employer branding rolled out in 2020, which highlighted the EPO's advantages as an employer and promoting the EPO's specific values.

As part of that employee value proposition, a review of the support offered to staff in relation to childcare and education has been carried out, with the aim of offering harmonised packages to staff members, and to have clearer, simpler and more transparent rules. Freedom of choice remains a key principle of the reform. This reform will also increase fairness by extending support to all parents, independent of nationality, will contribute to reducing the weight of external factors on the costs and will increase administrative efficiency.

As a response to the impact of the COVID-19 pandemic, the Office also adjusted the **onboarding of new hires** by setting up a virtual onboarding portal for engagement and training from the first working day. The possibilities of **virtual onboarding** will be further developed to engage with newcomers before their start date, enabling faster integration into the Office community. **More flexible language requirements** and greater language learning support for new staff will be implemented, to further support recruits from all member states.

Diversity and inclusion

In attracting new talent, the EPO also has an opportunity to strengthen its diversity and underline its commitment to inclusion. In 2020, the Office has adopted a disability policy. Gender-neutral language guidelines were also published. The recognition of the diversity of staff and their needs have been at the centre of the Office's effort to be inclusive, and workshops to foster inclusion given the challenges of the COVID-19 crisis were organised. Awareness campaigns continue and inclusive behaviours will be further encouraged by a network of diversity and inclusion promoters from all Office areas.

During 2021, a diversity and inclusion **yearly programme** will cover several pillars ranging from awareness campaigns, development measures, events related to diversity and inclusion in intellectual property and patent world, communication campaigns and ensuring the "new normal" is recognising the diversity of situation of the staff. The promotion of the EPO's ten inclusive behaviours launched in July 2020 will continue in 2021. A campaign against sexism will be rolled out. Targeted training for EPO's internal networks will be set up focusing on LGBTQ issues and people with a disability. The network of diversity and inclusion promoters will be expanded. In addition, to strengthen its general presence in the IP world and its image, the EPO will reach out to the community platform "Women in IP".

Develop talent

In 2020, a solid foundation has been laid for a structured approach to **workforce planning**, with all areas required to develop plans to align resources and succession planning to deliverables.

Within the framework of establishing a **strategic development plan**, the EPO has launched tailored development programmes for all roles in Business Information Technology, as well as for Procurement, project managers, management assistants and Directorate Quality Audit auditors. The Office has also launched a **leadership programme** for team managers and directors and the LEAD **mentoring** programme for current and aspiring managers, which has 102 mentees and 51 mentors.

Adjusting to current and future ways of working calls more than ever for staff to have the right competences. In 2021, **development programmes** will be established for Finance, lawyers, Communication, learning professionals and other Office areas, utilising wherever possible training modules from existing development programmes.

The **leadership development programme** for team managers and directors will integrate diagnostic tools (psychometric and other assessments) to boost the effectiveness of leadership coaching, while the **executive leadership programme** will empower senior managers to develop further advanced skills. The programme includes modules from the University of Oxford's Saïd Business School and a leadership conference enabling participants to benefit from the experience of other senior leaders. It also aims to support the establishment of a leadership community of practice.

In the current climate, remote working has become the most common way to work for EPO's staff. In 2021 the Office will extend its managers' development journey to provide them with insights and resources to succeed as "remote leaders".

Building on the success of the approach used for examiners and formalities officers, **functional coaching** will be extended to other areas of the Office and the EPO will look to link up with **external mentoring** networks to raise staff awareness of challenges faced in other organisations.

The EPO will also work to clarify career paths at the Office to offer a meaningful and coherent **talent management** framework. During 2021, the Office will review its **performance management** practices to increase process efficiency and acceptance while exploring new ways of rewarding desired behaviours, such as increased collaboration.

Foster professional mobility and work-life balance

The radically changed circumstances in 2020 have had a profound impact on many plans, and staff mobility has been paramount to adapt to the COVID-19 pandemic.

Teleworking has become a daily reality for most staff and has allowed the Office to maintain business continuity for the benefit of its users. The Office has helped staff to manage their professional and personal commitments in these challenging circumstances, including by **adapting HR policies** to allow for **greater flexibility**.

Based on the outcome of the Office-wide "Shaping the new normal" survey, a **new teleworking policy** will be encapsulated in the "Towards a New Normal" strategy, and developed further in 2021. The policy on geographical mobility will aim to foster virtual collaboration and cross-site careers, as well as facilitating remote working and collaboration across European Patent Organisation member states. In particular, the Office's teleworking policy will be revised for greater flexibility, in line with individual aspirations and Office needs. Under the new policy, access to and movement between career paths should be independent from a staff member's preferred work location – whether on site, at home or at another remote location – offering equal development opportunities and improved work-life balance.

Pan-European Seals

In the framework of the Pan-European Seal programme, the Office offered an extension of the traineeship period to those 52 trainees who started in September 2019. Exactly half of them accepted the Office's offer to stay until the end of 2020, giving them some extra time during the COVID-19 crisis to make arrangements for their careers. The new intake started in September. It comprised a **record number of 77 trainees** from 19 member states, who joined the programme – initially remotely – for a 12-month traineeship.

The Pan-European Seal Programme 2.0 will bring a range of improvements to its **legal and administrative framework** that will allow scaling-up the programme and boost its attractiveness, especially for candidates with a background in science or engineering. A **dedicated development plan** for both trainees and tutors will be launched. In addition, the Office will take measures to further expand the **network of highly ranked universities** with a technical profile and improve the programme's geographical coverage. The Office will strengthen co-operation activities to foster IP teaching, learning and promotion and design a more systematic approach to co-operation.

Further develop a modern, sustainable and healthy working environment

The COVID-19 pandemic is expected to have a profound impact on the way office-based organisations work in the future. The focus in 2020 has therefore been on adjusting the EPO's Building Investment Programme.

The Office expects to complete a **revised outline** of the programme in 2021, integrating insights from the **"Shaping the new normal"** survey and will outline its plans in the "Towards a New Normal" document capturing the overall scope of each project. Draft technical specifications common to all projects will also be developed, as well as a workplace concept. In the meantime, a tender for professionalising the gym offering at the EPO is underway. Specifications have been defined for a software tool to support the management of all building projects throughout their lifetime, with the aim to procure an off-the-shelf solution in Q1 2021.

Following formal approval of the new concept, the Office will start preparing detailed technical specifications for the new Vienna building, Isar renovation and upgrades of PH 8 and New Main. During this process, consultations will take place with the key stakeholders to develop the project-specific designs and ensure that all essential requirements are considered.

While the Office has been making plans to adjust the Building Investment Programme, work has also continued in the meantime to ensure a safe, secure and attractive physical working environment and conclude projects already underway. In The Hague, Old Main was demolished on time this year. In Berlin, the German authority should complete building Z by the end of 2020. Tender packages have been prepared for the design of a new building in Vienna, project management for the upgrade of the PschorrHöfe 8 (PH 8) and an accurate assessment of the Isar and PH 8 buildings.

Increasing transparency and efficiency in the Office's financial processes

In 2020, the "Finance 360" programme has laid the foundation for the Office's future finance and procurement processes. When it comes to finance, the Office has defined the **future finance steering model** that will support the EPO in improving cost awareness and accountability. This new model will rely on the implementation of a network of finance partners, as well as an **increase in transparency, accountability and ownership** on the part of EPO managers. When it comes to procurement, the Office has started to move towards more efficiency and transparency, selecting the Ivalua tool to support the future end-to-end procurement process. In the area of process efficiency improvement, the new payment portal – part of the **fees management project** – will go live in December.

Next year, the Office expects to finalise the design of the finance and procurement processes. It will implement a **new budget management tool** as well as a **contract management system** and **new supplier portal** that will support the supplier invoicing process. In parallel, the Office will start to move towards the new financial steering model with the internal recruitment of the finance partners and implementation of the new finance organisation. The fees management project will continue to deliver new features, such as streamlining the European qualifying examination financial process and bank reconciliation process standardisation. Finally, the Office will start working on the implementation plan for the new accounting system SAP S4.

Strengthen corporate culture

The programme to strengthen corporate culture in terms of **communication and collaboration** is co-ordinated by the new Principal Directorate (PD) Communication, which in 2020 has consolidated its structure. The majority of the elements that integrate the PD are in place and working, such as the daily "newsroom" meetings and the assignment of staff to their new roles and teams. The Principal Directorate has been organised into a Content Creation directorate, and a Channel Management directorate. Doing so has helped to ensure that the PD profits from synergies in the production and distribution of content, and when reaching multiple audiences, while also encouraging greater collaboration among colleagues.

The **Communication Intelligence network** (CIN), which consists of staff from across the organisation contributing to bidirectional communication, has also been set up: 25 members have been selected. The CIN will be officially launched in January 2021. The relevant preparatory work has taken place, including identifying training needs for CIN members, mapping the communication units existing Office-wide and establishing a platform for discussions. In 2021, the Office will also look at how to enhance managerial communication as a further channel for reaching staff with timely, accurate and aligned information.

In the light of the COVID-19 crisis and the need to use **digital means to communicate**, the Office has expanded its use of online digital events. This has helped the Office to reach wider audiences and encourage widespread debate on technologies such as Additive Manufacturing and Printing (3D printing) and Artificial intelligence (AI). The move to online events has also facilitated greater access to staff who would not necessarily had the opportunity to attend in person, as required previously. In 2021 the EPO will develop the format of its events to offer increased interactivity and engagement.

In the area of "patent stories" the Office will also hold events in 2021 focusing on the real-life and human impact of inventions and patents. Work in this area has already started this year with regular events on COVID-19 technology and the science and patents behind the pandemic.

In 2021 the Office will also examine how social media can be used to support greater staff engagement. At the same time the EPO will support staff in their use of social media so they can become effective multipliers for reinforcing the EPO's positive reputation.

In 2021 the Office will launch a new intranet in an enhanced digital environment. A more user friendly interface will provide quicker and efficient access to up-to-date information. Staff will be able to add pages and links to their own personal "quick access" area, giving them a direct route to information that is directly relevant to them and their work. The move to a modern content management system will provide more options and flexibility in terms of presentation of information, with the ability to add new areas and content more quickly with less involvement from BIT.

For both the internet and the intranet a responsive web design will be introduced that is capable of working smoothly on all devices – from very large Office screens to mobile phones to support the increased flexibility of the future ways of working, where colleagues may be working from different locations, with varying technical set-ups on different days or at different times.

Foster social dialogue

In 2020, more than 100 **meetings at different levels** took place with the staff representatives and unions (statutory and non-statutory consultations).

A **wide range of topics** have been discussed with the staff representatives, both at a technical level and with the President and senior management. The discussions have been concluded with tangible results on the following subject matter: bundle of financial measures (CA/18/20), salary adjustment procedure (CA/19/20), staff representative elections (CA/17/20), disability policy, and performance management (recognition of PhD as work experience and one off automatic step advancement for those staff members who haven't had a pensionable reward for the last four years). Finally, with effect from 1 January 2021 changes to the process of sick leave verification will be introduced.

A **reviewed social agenda** will be proposed for 2021, including finalisation of the educational benefits reform and the continuation of the reform of the Internal Appeals Committee. In addition, guidelines for the extension and conversion of fixed term appointments will be elaborated. Finally, further policy changes can be expected as a result of the implementation of SP2023 or the strategy for a "new normal", such as for instance the revision of the teleworking guidelines. Ensuring health and safety of staff has always been a priority at the Office; this has been the case during the pandemic and will continue to be in the focus as the Office is moving towards a "new normal".

During 2020, the President has met more than 1 350 staff members in team meetings, where they have had the opportunity to exchange information and discuss important topics directly. Continuation of these informal feedback rounds is planned for 2021.

To move from a culture of litigation to a **culture of dialogue**, more than 663 cases have been proposed for settlement over the last 24 months. There was a positive outcome in 52% of the cases involving individual appellants with one to three pending cases. On the other hand, repetitive appellants have shown less willingness to resolve litigation with 33% of cases concerned being settled. Discussions continue in other cases. The invitation to reconsider litigation and to start a discussion on an amicable solution remains a priority in 2021.

Goal 2 – Simplify and modernise EPO IT systems

The EPO continues to modernise its IT infrastructure. The digital transformation ahead will provide EPO's staff with advanced, upgraded tools to boost their efficiency and quality. The Office's reinforced web presence will ensure greater responsiveness to users' needs. The Office will also broaden the scope of its IT operations to include co-operation with other stakeholders, such as the National Patent Offices (NPOs).

Our IT systems

Smart | Responsive | Fast

Implement a patent tool to support an end-to-end electronic patent granting process through a modular and scalable approach

Search

Artificial intelligence and blockchain

New online user engagement

Digital administration

Strengthen information security

Infrastructure

Implement a patent tool to support an end-to-end electronic patent granting process through a modular and scalable approach

The **agile methodology** used to deliver a minimum viable product (MVP) rapidly and then adapt the product to user needs in fast and frequent subsequent release cycles has proved to be the correct way forward for **digitalising the Office's complex workflows**. In 2020, 90% of basic workflows were digitalised in the future architecture, allowing examiner and formalities officer actions as well as preparation for oral proceedings to be carried out without paper and remotely from the Office. In addition, several new solutions have been implemented to create and manage patent file annotations, including support for tablets. Furthermore, a **patent workbench** has been set up as the future single interface for examiner and formalities officer transactions.

In 2021, the Office will complete the work started on a **paperless workflow** to cover most of the relevant procedures in the patent grant process (PGP). The Office will also continue advancing and expanding the patent workbench and digital file repository functionalities and integrate all these elements into the PGP as a whole. Implementation will include **decommissioning a legacy dossier viewer** towards the end of the year. Additional annotation possibilities will be added, including mobile solutions. **Management of oral proceedings** will be further enhanced by digital registration of change requests and submissions.

In addition, the Office will launch the second wave of projects aiming to further digitise the PGP. In particular, the data exchanges with national offices and WIPO will be integrated into the new PGP architecture and the corresponding internal workflows for national searches, international-type searches and PCT Chapters I and II will be further simplified and streamlined.

In 2021, the Office will further extend its use of public cloud services, such as those in daily use for searching in specialist databases, managing mobile devices, and core processes such as OCR and publication. The Office will extend its use of the cloud to become the default option to access some basic IT services, such as video conferencing, cyber protection for zero-day vulnerabilities, crisis management and application monitoring systems.

The key advantage of this move is that in a global world, where accessibility to services and tools 24/7 is required by the user community, the Office can no longer afford planned outages for technical interventions outside normal EPO working hours. Cloud services offer a 99.999% availability in most of the services and full Disaster Recovery solutions are offered.

In making this move to cloud-based platforms the Office will continue to ensure the security of its data in accordance with the EPO's data protection policies and rigorous cyber security measures. This will ensure that the use of cloud remains a safe and secure option for the Office's operations.

Search

In 2020, the search programme has provided **usability and performance improvements** in combination with **more searchable data** in ANSERA. It is now possible to search application documents, examiner notes and specialist databases. As of early 2021, ANSERA will support a **dual monitor configuration**, giving examiners a dedicated reading window.

Complex tools such as ANSERA require accompanying **learning initiatives**. In order to increase the usage of ANSERA, collaboration between line management, expert examiners and the Talent Academy has been key, and interest in the new ANSERA training modules is very high.

In 2021 the Office will continue **evolving ANSERA** into a new search platform, **expanding functionalities** and **improving the user interface and performance**. The user interface will follow the recommendations from extensive user consultations and be aligned with the EPO design guidelines. The new search platform will offer a dedicated module for searching in the standards data collection.

By the end of the year, ANSERA is not only expected to support the **complete search workflow**, but also to add value in aspects of examination. The tool will be further expanded with native pre-search, integration of annotations and initial classification support.

The search programme also plans to launch an additional project for external non-patent literature data. The goal of this project is to integrate external non-patent literature search into the new search platform.

Artificial intelligence and blockchain

In 2020, the Office has launched the first set of projects involving artificial intelligence (AI)-based processing of patent text and images, to probe data quality for further developments. These projects cover **computer vision**, **natural language processing** and **machine translation**. Initial models have been deployed and exposed to selected user groups, enabling the further enhancement of existing services.

AI services and **deep-learning computing resources** have been successfully deployed in the cloud, allowing full flexibility and scalability when developing AI-based solutions.

Looking ahead, computer vision will deliver an algorithm that **annotates all prior-art figures** and finds similarities between figures, facilitating the search process. The work done on image search will also improve search and pre-search quality.

In 2021, **machine translation** will be improved and expanded to cover additional languages (Dutch and Italian). In addition, several application programming interfaces will be released to support search functionalities, for example automated search data enrichments (e.g. physical units). The Office will also work on initial iterations of AI-based search.

Natural language processing will explore **full CPC symbol allocation** at document and paragraph level and provide AI-based reranking for pre-search.

New online user engagement

In 2020, several initiatives have been launched to enhance the online user experience. These include **modernisation of epo.org**, **enhanced customer care** and the introduction of a **user area** that will offer new features for working with patent portfolios, covering electronic filing and communications.

In 2021, the new user area landing page will go live. Features will include **self-service user registration**; **user-friendlier access to the user's patent portfolio**; and a new-style, **more flexible communications mailbox** that aims to provide online access to all EPO procedural communications. Users will also benefit from new options for submitting procedural requests for existing patent applications.

2021 will be a period of intensive work on the renewed epo.org and preparation for its full public launch in early 2022. Some features will become available to users beforehand, for example the modernised, mobile-friendly EPO legal texts.

Digital administration

In response to the COVID-19 crisis, the Office significantly accelerated the roll-out of Windows 10 and Microsoft Office 365 and has provided all staff with **new laptops** to enable remote working. Microsoft Teams functionalities have been expanded to **improve communication and collaboration** and to prepare for the decommissioning of Skype for Business.

In 2020, HR tools have been improved and expanded in the areas of staff performance management support and recruitment. **New e-learning platforms** have been made available to staff, offering a wide range of high-quality courses, learning plans and development assessment functionalities.

In addition, a multi-annual project has been launched to simplify the current landscape of administrative document repositories.

2021 will bring major changes to the **intranet**, with a new intranet being released in several iterations throughout the year and the legacy one being decommissioned. The Office will revamp its **online meeting and videoconferencing services**. This will cover investments in the new infrastructure; providing solutions for areas such as **oral proceedings with interpretation** and online events; and the further evolution of Microsoft Teams and internal collaboration tools.

By the end of the year the migration of documents to the **new document management platform** will begin, in line with the new governance model for document classification and retention. In parallel, a new platform, business models and workflows will be implemented to handle corporate data, leading to the replacement of the existing data warehouse with **big data architectures and self-service**.

After a comprehensive review and simplification of the Office's HR processes, further improvements will be implemented in the area of **HR tools**, covering an improved e-learning solution, integral talent management, skill and competency management, succession and internal mobility.

In 2021 the Office will also finalise a **new vendor management framework**, to strengthen business and vendor relationships and streamline activities. Thanks to the consolidation of IT contracts in some key areas, the administrative overhead will be reduced, freeing up resources that can be devoted to managing vendor performance.

Strengthen information security

In 2020, the Office has invested in **cyber-security** by upgrading the identity and access management solution and highly privileged account management. In addition, all workstations have been equipped with **enhanced cyber-defence capabilities**, contributing to a safe working environment for all staff members connecting to the Office's IT systems remotely. The Office has also deployed new systems to manage security vulnerabilities at the source during development stages.

As part of efforts to achieve ISO 27001 certification, the EPO's official certification body has carried out a **"certification simulation"** activity. In parallel, a detailed gap analysis was carried out in all areas required by the standard, which involved around 50 key stakeholders within the Office.

In 2021 the Office will implement **centralised authentication solutions** for user access to EPO applications to increase both security and flexibility. Users will also be provided with self-service capabilities, allowing them to manage their access tokens and related security information.

In addition, new security components will be made available, allowing faster and more secure SP2023 solution delivery. New **threat intelligence capabilities** will also be delivered, ensuring that information about active security threats reaches EPO security teams and tools in a timely manner.

The Office will also improve the efficiency and efficacy of security operation handling by consolidating existing network cyber-defences and deploying the first stage of a comprehensive **intrusion detection and prevention system** and a state-of-the-art **security information and event management** system.

In addition, the Office will continue preparations to meet ISO 27001 information security management system requirements. In 2021 this will involve integrating the ISO 27001 core activities into the integrated management framework and corporate risk management process, delivering an information security policies framework and executing all required activities identified in the gap analysis. The Office aims to achieve readiness for the certification process in 2022.

Infrastructure

To boost the reliability and availability of IT systems and ensure business continuity, the Office has started **decommissioning the IBM mainframe** and **re-platforming the systems** currently running on it. In addition, preparation of the **Luxembourg data centre** has been completed and the migration of applications started. The current **disaster recovery environment** has also been tested, and work has begun to implement the required improvements.

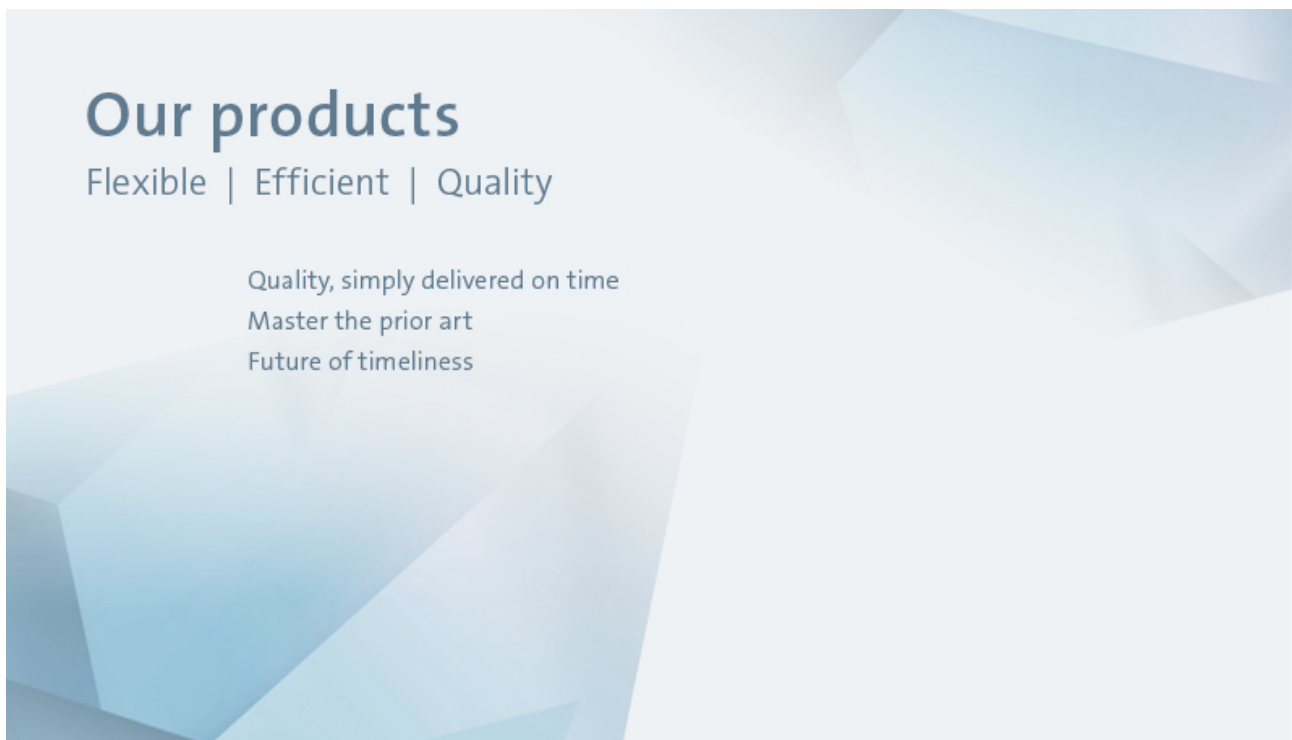
By the end of 2021, there will no longer be a mainframe in any EPO data centre. The **migration** of the primary data centre to Luxembourg will be complete, the disaster recovery environment will continue to be enhanced, and a large-scale disaster recovery test will take place after the **mainframe re-hosting**.

A **new service management tool** (e.g. service desk ticketing system) will be rolled out to internal and external users. The monitoring platform will be modernised to support application-level monitoring for the new tools and technologies, in line with new ways of working.

Production-grade cloud infrastructure will be in place and several applications will already be cloud-native. In 2021, Espacenet and a number of other public-facing applications will be migrated to the cloud.

Goal 3 – Deliver high-quality products and services efficiently

The Goal 3 portfolio has been reassessed and prioritised with a focus on supporting the digital transformation of the patent grant process (PGP). The EPO wants to build quality, simplicity and timeliness into everything it does. The aim is to enable transparent interaction with a fully digitalised Office, facilitating improved incoming application quality and providing full information about the status of a user's portfolio. The tools which will be developed should facilitate procedural and prior-art data management, quality assurance (e.g. verifying the completeness and correctness of submissions), efficiency and timeliness.



Key factors impacting the Office's work are the new digital and more flexible working environment, expected workload fluctuations as the frontier of technology shifts, and more integrated, interdisciplinary patent applications. The EPO's overriding objective remains to maintain its high standard of service to its users. The Office will be adapting its operational workload management model to align behind three pillars which will ensure optimum allocation of resources:

- Digital File Allocation: artificial intelligence assisted distribution of incoming workload based on skills and available capacity to get the right file, at the right time, to the right division;
- Digital File Marketplace: a transparent file redistribution platform to accommodate short-term capacity and workload fluctuations;
- Digital Talent Marketplace: an Office-wide job marketplace building on the existing "Job Market" initiative to address medium-term structural capacity changes by creating a transparent platform for staff to identify job opportunities and strengthen job mobility in line with operational business needs.

Quality, simply delivered on time

The need for a **common definition of quality** was identified last year at workshops on a convergence of internal and external quality perceptions. Internal experts have now reviewed the feedback to develop a first, prioritised list of quality factors. In 2021 this work will be used as input for the new patent grant process, and as a starting point for discussion on quality initiatives. The quality expert panels introduced at the SACEPO Working Party on Quality in 2019 will be resumed in 2021 to continue the **dialogue on user expectations of quality**.

In 2020 the **Enhancing Collaboration project**, which from December 2020 involves 60 examiner teams, has developed new ways for examiners and formalities officers to work together. Two proven successes are search jams, where examiners exchange insights on the search process, and neighbouring field collaboration, an interdisciplinary approach to the search and assessment of inventive step. In 2021, Enhancing Collaboration will be extended throughout the operational sectors. New methods will include the facilitation of structured remote file discussions and the promotion of team engagement, for example through fun activities such as case law quizzes.

Grant audit results from Q3 2020 (78.3% compliance rate) indicate that, despite COVID-19, quality remained stable from October 2019 to September 2020. First signs of a potential upward trend (yet to be confirmed) could be seen in all sectors. Although DG 1 agrees with approximately 90% of audit outcomes, a new possibility for auditors and examining divisions to discuss negative findings has been introduced to aid **alignment on an understanding of quality**. A first internal "Talk Quality" webinar has kicked off the new dialogue, and implementation will be closely monitored in 2021. Recruitment of quality auditors will also continue, facilitating an increased sample size for more accurate reporting in 2021. In addition, the Office will analyse the differing audit criteria for search and examination.

A rolling programme of online Boards of Appeal lectures aimed at DG 1 staff which started at the end of 2020 has been well appreciated. In 2021 the process of learning from case law will include a deep-dive **analysis of appealed refusals**. Boards of Appeal members, Directorate Quality Audit staff and DG 1 quality and case law experts will meet to discuss quality issues as part of a new dialogue.

In 2021 the Office will take the first steps towards **harmonising the structure of communities of practice**, such as the Asian Patent Expert, Computer-Implemented Inventions and Emerging Technologies groups, to promote excellence in examination practice, make it easier for examiners to find experts and curate knowledge in the digitalised environment.

The Office will continue to deep-dive into the main reasons for deficiencies in applications on filing. It will develop a strategy to improve the **quality of incoming submissions** through key account management and potential improvements to filing procedures. At the same time the Office will work to improve its internal visualisation of processes to enhance quality management.

The first-ever **online public consultation on the EPC and PCT-EPO Guidelines** attracted almost 150 responses. About 33% of the comments related to issues in the field of biotechnology, and about 27% to computer-implemented inventions. All contributions were discussed with user representatives at meetings of the SACEPO Working Party on Guidelines. Should this tracked activity be considered successful, user consultation will become a normal part of the Guidelines cycle from 2021.

The "Streamlining procedures" programme has been closed and a new "simpler project" set up within the "Quality, simply delivered on time" programme. It will help realise the planned benefits of PGP digitisation by defining a simpler way of working for all involved in the PGP; this covers a **review of workflows and Office actions**. Arriving at a shared understanding of the meaning and value of a simpler framework will further improve and align internal and external perceptions of the added value provided by the Office. It will reinforce engagement with EPO's users and give the Office a better understanding of their current and future needs in a unique opportunity for partnership.

Starting with a review of refusals, the simplification work will proceed in a task-based manner to **prioritise the PGP processes and procedures** needing simplification. This will be done in collaboration with all initiatives affecting the PGP.

The project will build on the activities under the previous programme, such as the "follow the paper" study, and also integrate the initiatives taken during the COVID-19 crisis in terms of **paperless working** and **using videoconferencing for examination and opposition oral proceedings**. In 2021 examiners will use the first of the standard clauses for examination revised for gender neutrality and plain language, improving the clarity of EPO written opinions and communications.

Finally, based on the presentation of the document CA/F 27/20 on the fee structure and related income to the BFC in October 2020 and the positive feedback received from the delegations, the Office will conduct a round of consultations in 2021 with the different stakeholders, especially the member states and the users, to review the fee structure of the European patent system. It will be conducted under the following principles: accessibility to the system; financing of the overall system; simplification of the fee structure; steering applicant's behaviour through incentives / disincentives; aligning the structure of Euro-direct and PCT fees; improving the cost coverage of certain products and services; support for certain categories of applicants especially SMEs, universities and research centres.

Master the prior art

In 2020, several **improvements to the Office's classification tools** have contributed to an overall reduction in classification workload and paved the way for usability enhancements and the facilitation of reporting on classification activities in 2021.

The Office now fully classifies most of the published patent documents in its core prior-art collection within six months of publication, and the plan is to bring this down to four months in 2021. The EPO has also increased the percentage of **files published with a full classification** (79% and growing). In addition, the backlog of documents that need reclassification has fallen by nearly 90% since January.

The combination of these measures minimises the likelihood that relevant prior-art documents are missed when searching first filings.

An important milestone in 2021 will be the integration of **classification functionalities in ANSERA**, allowing examiners to more effectively combine (pre-)search and classification activities. The Office will progressively start introducing AI models in specific high-workload fields to assist examiners with classification at document level and release functionality to enable, both manually and with suggestion from AI models, the allocation of classification symbols for document parts (individual passages or images).

In the specific field of Y02/Y04 (climate change mitigation), the Office will release AI models enabling automatic updates to the scheme in future.

As regards **reclassification**, a first module allowing examiners to perform partial reclassification will be rolled out in Q1 2021, with further integration in ANSERA and the development of AI-supported reclassification functionalities being scheduled for the end of 2021.

With the publication of 211 Cooperative Patent Classification (CPC) projects by September – an all-time high figure –the backlog of **CPC revision projects** awaiting completion has been eliminated. The focus in 2021 will be on gradually reducing the average duration of the CPC revision process to nine months.

2020 also marked the start of a new **classification harmonisation exercise** with the United States Patent and Trademark Office, building on their network of around 140 search and classification examiners. The aim is to continue this exercise in 2021 and cover all major technical fields as soon as possible.

Future of timeliness

In 2020, a review has been conducted of how best to report on timeliness achievements to the Administrative Council, EPO's staff and users, and the wider public. The review looked at timeliness from the **user perspective** in terms of both reporting and setting objectives for improvement.

For search, in addition to the mean average duration of the search procedure, the Office now reports on the percentage of search reports and written opinions sent on time to applicants, depending on the chosen filing route. A change to internal limit dates was made and the monthly percentage of EP first filings has gone from around 50% on time at the beginning of 2020 to 71% on time in October (87% on time considering all searches) as the effect of this change works its way through. This percentage should increase further in the coming months.

For examination, the percentage of grants sent within 28/36 months and end-to-end time to grant complement the mean average duration of the examination procedure. The average time to grant for EP first filings has decreased by 3.3 months in the past 12 months, now at 45.4 months from filing to grant.

For opposition, reporting covers the percentage of standard opposition decisions sent to the parties on time and the mean average duration of the standard opposition procedure. Reporting on non-standard cases (oral proceedings postponed, multiple opponents or need for a legal member) is done separately.

To **safeguard quality**, for all first-filing searches the Office now ensures that the search does not start before the fourth month from priority, thereby giving examiners sufficient time to classify prior-art documents that might be relevant and published just before the application's filing date.

In 2021 the Office will expand reporting on timeliness for **standard and non-standard cases**.

For search, cases are non-standard when:

- clarification of the scope of the search is needed,
- there is no unity of invention or
- the search report is incomplete.

For examination, cases are non-standard when:

- oral proceedings are postponed,
- an extension of the time limit to reply has been requested at least twice or
- payment of fees has been delayed at least twice.

The Office has taken a fresh look at its User Satisfaction Survey (USS) programme. The last survey was held in 2018 and the Office used 2019 and 2020 to re-design this programme. As a starting point, the Office used the SACEPO Working Party on Quality to engage with the user community on a complete end-to-end USS. There are now 6 surveys within this programme covering from pre-filing to opposition as well as applicants' future filing projections. The USS started in September and the various parts will run until early 2021. Consolidated results are expected in April 2021 and they will allow the Office to draw conclusion on its performance and opportunities for improvement in all pertinent areas of activity, from pre-filing information through to search, examination, publication, opposition as well as customer services. As part of the USS the Office is also asking its users what their needs are with regards to the timeliness of the EPO's search and examination services.

Goal 4 – Build a European patent system and network with global impact

Our partners

Global | Converge | Collaborative

- Improve access to patent knowledge
- Review of data policy
- Maximise the impact of co-operation
- IT co-operation
- Convergence of practice
- Unitary Patent package
- Define and prioritise co-operation activities
- Broaden the European patent system and network impact
- Strengthening the PCT

Improve access to patent knowledge

All developments in the Office's e-learning offering are user-focused. In 2020, the Office launched a digital dashboard monitoring user behaviour and developed a statistical and semantic analysis approach to online user feedback.

With the aim of granting users easy access to knowledge, the first edition of the **online IP calendar** will be launched in 2021 with EUIPO and EPO training opportunities.

The EPO is also shaping the transformation to an online environment for professional certification: the European qualifying examination is going digital. 2020 saw the set-up of a tool and March 2021 will see the **first-ever online qualifying exam**. At the same time, the Office will undertake the finalisation of the preparatory steps in 2021 in order to be able to organise the first exam for certification for patent administrators (EPAC) in 2022.

The research and innovation community will be provided with the results of the PATLIB 2.0 programme. In 2020, the Office finalised a study on technology transfer in Europe; in 2021, it will publish the **new PATLIB directory** and revamp the **PATLIB conference format**. In addition, an initiative to harmonise technology transfer certification in Europe will be launched.

The European patent network service area will see an important output in 2021: the prototypes of a **centralised training catalogue** and of a central repository of training material offered to national offices supported by the European Patent Academy which has undertaken a systematic update of its educational offering and structures.

The revamping of the Academy's **training activities, educational formats and learning methodologies** builds on the pillars of digitalisation, co-operation, modularity and certification, and has identified objectives at the operational, substantive and governance levels. In this last respect, the Academy's external governance will be reviewed in light of the political consultation of delegations and stakeholders that will be launched in early 2021. The ultimate objective is to **enhance the role and impact of the European Patent Academy** as a benchmark for excellence in IP training and to respond to present needs and future requirements.

Review of data policy

In 2020, the Office launched a comprehensive review of its data policy with the aim to foster the evolution of the services provided, from patent information to **patent knowledge**, helping the economic actors to take the most appropriate decision for the protection of their inventions. Through the mapping of its numerous prior art databases, this review will also help to identify the missing elements towards completeness and bring the Office to provide the highest quality of services in patent data. A report on the review will be shared with the different stakeholders, and on this basis the Office will propose a series of measures in 2021.

Maximise the impact of co-operation

Following the Council's adoption of the new framework for co-operation with the member states in June (CA/27/20), the EPO and the national offices have started discussing their future co-operation that will be reflected in **bilateral co-operation agreements**. Each national office selects the projects and activities of its interest from the co-operation catalogue and project cards that include all the details of co-operation needed for implementation. The signing of the agreements will ensure the allocation of the necessary implementation resources and facilitate progress monitoring.

In addition to implementing the administrative arrangements for the new policy for all offices concerned, the Office will support the modernisation of the IT system which is the basis for the exchange of national search data.

On the basis of the decision to be taken by the Council on the proposal of the Office to improve the scheme for **working agreement on search** (CA/51/20), the EPO will assist the concerned national offices with the preparation of the necessary technical developments related to the **transfer of data** to the EPO. The Office will support the implementation of awareness-raising activities focused on promoting the European patent system in and with the member states. Additionally, the Office will increase its joint efforts with the national offices and local intermediaries to prepare and launch the pilot **Patent Lab services** with the aim of providing individual, personalised support services designed to guide the target entity (SME, research organisation or university) through the IP system and patent-related procedures.

IT Co-operation

In 2020 the EPO initiated a series of project-based working groups to **facilitate technical-level co-operation** between experts from national offices and user associations, ensuring the best outcome in the interests of the European Patent Network as a whole. The projects under discussion are: front office (covering e-filing and associated services), data quality, search, quality management and process mapping, modular back-office, cooperative patent classification, and a single access portal, which was prepared to facilitate electronic submission of bilateral agreements. The teams presented several demos and proofs of concepts starting in September, which were positively received by national offices and user associations.

In 2021 the projects will continue and many major milestones are planned. Next year the Office will engage with interested national patent offices to launch the first set of **pilots for the front office** with national patent filing as a first step, and a new search tool will be developed and made available to an initial group of member states. The **single access portal** will be completed with further functionalities, including post grant validation and the integration of EPOXY, Micado and National Office Centre (NOC). Thanks to continuous efforts in the area of data quality, including an optimisation of data transfer coming from national offices, the Office expects to improve the **completeness of prior art data**, such as bibliographic data, images, citations, enriched citations and full-text. The **process mapping** of participating national offices will also be completed; these process maps will be key to reduce the business analysis effort otherwise needed to develop common software infrastructure. Additionally, a new series of **CPC implementations** will begin and national offices could start implementing their first back offices.

Convergence of practice

Following successful work on a convergence of practice in the areas of examining unity of invention and the designation of the inventor, the Office will initiate the next work cycle in 2021, subject to the member states' agreement. It will focus on **accordance of a priority date** and **re-establishment of rights**. In this next cycle, the Office will strive to extend the involvement of the users beyond the regular information and consultation.

Unitary Patent package

With the ratification process of the Unified Patent Court Agreement in Germany moving towards completion, the activity of the Select Committee on the Unitary Patent should resume in 2021, with the support of the Office, in order to ensure that all preparatory steps are met for the implementation of the package.

Define and prioritise co-operation activities

In 2020, the Office signed memoranda of understanding (MoUs) with the **European Space Policy Institute** and the **International Energy Agency**, on technology intelligence in the strategic sectors of space and green technologies respectively. A first study under these MoUs – on batteries and energy storage – has already been published. The Office also aims to sign a MoU with WIPO, with a focus on fostering collaboration, digital transformation, access to patent knowledge and, last but not least, the PCT.

The Office has explored the possibility of formalising its co-operation with the **European Commission** through an MoU, which could be signed in 2021, aimed at enhancing the pan-European innovation ecosystem for a speedy economic recovery in Europe.

In order to raise the awareness among the members of the **European Parliament** about the importance of a well-functioning patent system, the Office will explore how relationships could be further developed through contacts at different levels in 2021.

The Office's workplan with the **EUIPO** will focus on European co-operation working methodologies, IT co-operation, IP data analytics and economic studies, training and awareness-raising. As part of its co-operation with the **Community Plant Variety Office**, the Office will organise virtual training on opinion G 3/19 of the Enlarged Board of Appeal and exchange experience of continuing examination during the COVID-19 crisis.

Broaden the European patent system and network impact

The Office has made tangible progress in 2020 on expanding its international co-operation agreements. The validation agreements in force in Morocco, Tunisia, Moldova and Cambodia result in approximately **6 000 validations per year in total**. Very good progress has been observed in 2020 concerning process for the validation agreement with the African Intellectual Property Organisation (OAPI) which could lead to a final decision by the Council of OAPI by the end of 2021 and an entry into force in 2022.

At the end of 2020, the Office signed a **reinforced partnership (RP) agreement with Colombia**. In 2021, it will be able to provide a dedicated tool for RP offices giving direct access to the most relevant EPO work products. Overall, the Office will complete a number of technical and administrative actions so that, in the long term, the reuse schemes under the RP programme can enter into full production. This will allow the Office to derive maximum value from the RP agreements in terms of **increasing the level of reuse** by RP offices and obtaining **valuable quality feedback**. Three of the nine national offices having such an agreement with the Office now provide the EPO with regular feedback on the level of reuse of EPO products in their national procedures.

Due to the huge impact of the COVID-19 related restrictions especially on external missions, the Office is redesigning the training to be offered to validation and RP offices, and have already organised a first series of webinars in the new "flipped classroom" online format for RP offices in Asia and Africa.

One of the most important arrangements within the framework of the Office's **strategic partnership with the CNIPA** becomes effective on 1 December 2020: nationals or residents of the People's Republic of China can now select the EPO as their International Searching Authority and International Preliminary Examining Authority when filing their PCT application with either the CNIPA or the International Bureau of WIPO as receiving Office. This arrangement is being implemented as a two-year pilot for a total of 5 500 applications filed in English.

In November 2020, for the first time ever, the Office formalised its co-operation with the USPTO through an **annual bilateral co-operation workplan**, dealing in particular with CPC management, and improvement in the exchange of priority documents and data.

The EPO and its IP5 partner offices focused their 2020 activities on the IP5 offices' strategic responses to the COVID-19 pandemic and co-operation thereafter. At their annual meeting in July the IP5 Heads of Office agreed to further improve access to patent information containing a wealth of technological knowledge related to the detection, prevention and treatment of COVID-19.

The IP5 task force on new emerging technologies (NET) and artificial intelligence (AI) met in Berlin in January 2020 to scope the areas of future IP5 co-operation on legal and IT aspects as well as the long-term approach regarding strategic opportunities and challenges resulting from NET/AI. In 2021 the task force will collect the feedback from IP5 Industry to develop a roadmap for possible joint endeavours. To this end, feedback from IP5 Industry will be obtained.

In the second semester 2020, the Office conducted some exchanges with two other partners, USPTO and JPO, to envisage possible evolution of the **Trilateral** co-operation, addressing more the economic and societal impact of patents.

Strengthening the PCT

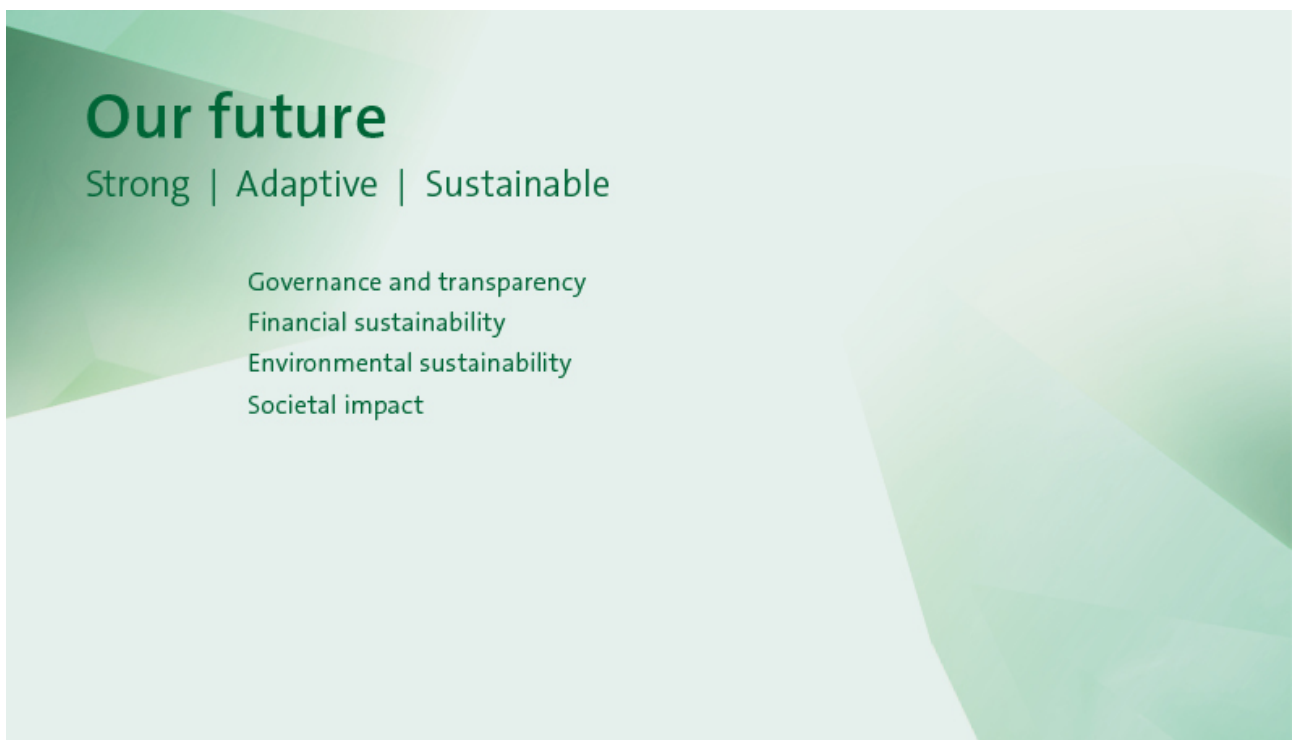
In 2021, the EPO will continue to work on further **improving the quality** of its PCT products and services, for example by having the IP5 common approach on unity of invention incorporated into the PCT-EPO Guidelines and by ensuring the seamless implementation of rule changes related to the filing and processing of sequence listings. The Office will conclude the roll-out of the **PCT Paperless service**, thus achieving an important milestone in digitising PCT workflows, with **improved timeliness for users** and cost savings and efficiency gains for both the EPO as International Searching Authority and the receiving Offices.

The Office will further pursue its co-operation with WIPO on key initiatives, such as the entry into production of the embedded ePCT filing solution in Online Filing 2.0, the streamlining of bilateral data flows and the enhanced use of the respective platforms to communicate with applicants electronically.

Goal 5 – Secure long-term sustainability

The initiatives laid out in Goal 5 help to secure the sustainability and the effectiveness of the Annual Work Plan. In 2021 the Office will continue to focus on a range of measures, from stronger governance and greater transparency to assuming more social responsibility. The initiatives fall under four main themes:

- Governance and transparency
- Financial sustainability
- Environmental sustainability
- Societal impact



Governance and transparency

How the Office conducts its affairs, and in particular its decision-making bodies and processes, is essential for increasing the consistency, transparency and accountability of its processes and their outcomes.

As an accountable organisation, its stakeholders need to know that the EPO is effectively managing a variety of risks which can threaten its operations, its services and the trust of its users.

In 2020 a **corporate risk management framework** was therefore implemented; it covers the entire Office and is based on international risk management standards. In 2021, building on the lessons learnt from the COVID-19 pandemic, the Office will perform an extensive **business impact analysis** and implement a **business continuity framework** aligned with international best practice (ISO 22301). Risk management capabilities across the Office will be further strengthened.

Ensuring ongoing quality is also an essential aspect of trust in the EPO's core services. The EPO's **patent process has therefore been recertified under ISO 9001** (quality management system). Additionally, the Office's commitment to healthy and safe working practices and facilities has been recognised by **ISO 45001 certification** (occupational health and safety management system).

The ISO 9001 quality management system will be extended to other areas of the Office, such as finance and procurement, human resources, infrastructure, IT delivery and maintenance, international affairs and legal affairs, in order to be ready for certification in 2022. In addition, the use of an exception register has been implemented for financial, procurement and human resources matters to provide more transparency and enable oversight.

The cascaded **Balanced Scorecard** (BSC) will be deployed to help monitor the EPO's progress in achieving its goals. It will cover all directorates-general (DGs) and their corresponding principal directorates (PDs), strengthening the coherence between strategic objectives and how they are interpreted at DG and PD level. Efforts will continue to focus on progressively increasing the maturity of the BSCs' key performance indicators (KPIs), to ensure adequate measurements of strategy implementation. To maintain alignment with the changing focus of SP2023 implementation, changes will be made to the KPIs where needed.

To better support management in the decision-making process, additional **management information dashboards** will be deployed. They will aim to give an overview of performance on specific operational aspects strongly linked to the Office's goals and directions.

Project management maturity will gradually be increased in various ways. Training of programme and project managers on project management-related challenges will continue. The focus in 2021 will be on supporting the delivery pipeline; ensuring dependencies are properly managed; tackling risks and issues as needed; and realising benefits.

In order to strengthen the EPO's external governance, the Office will propose starting a consultation process with the member states in 2021. In-depth analyses will explore areas of improvement for the EPO's external governance, with the aims of enhancing the transparency and efficiency of the European Patent Organisation's set-up; adjusting the legal framework relating to the Council's Rules of Procedure; and modernising the technical support to the Council.

Financial sustainability

Financial sustainability is a key component of the Office's overall sustainability. However, the 2019 Financial Study evidenced a total potential financial gap of EUR 5.8bn to be closed in the Office's finances over 20 years. The Office therefore proposed a bundle of measures which were approved by the Administrative Council in June 2020.

The six measures identified in the bundle are expected to generate a total financial impact of EUR 6.3bn and also allow for a margin in the event that one or more measures do not deliver the expected results. The measures and their total projected impact are:

- Adjust the method for collective salary adjustments (set up in the course of 2020 and enters into force on 1 January 2021, overall impact EUR 2 billion).
- 3.3% increase pension contributions to RFPSS (already implemented since 1 January 2020, overall impact EUR 0.3 billion).
- Biennial inflation based fee adjustment for procedural fees. A proposal for an adjustment is foreseen for 2022, following the latest similar exercise in April 2020 (overall impact EUR 1 billion).
- Digitise the PGP end-to-end (overall impact 1.2 billion).
- Invest 60% of annual cash surplus in EPOTIF (overall impact EUR 1 billion).
- Invest 40% of annual cash surplus one-off in RFPSS (overall impact EUR 0.8 billion).

The monitoring of the impact of these measures and of the corresponding closure of the coverage ratio will take place regularly as of 2021. It will provide a clear and transparent view on the progress of the EPO towards long-term financial sustainability.

Five out of the six measures relating to the long-term financial sustainability of the Office will already deliver results in the period 2020-2025 with an estimated financial impact of EUR 1.27bn, of which EUR 1bn is attributable to the actuarial gain expected from the introduction of the new salary adjustment method.

Furthermore, while it is difficult to anticipate, **investments in automation** are also expected to bring significant productivity gains upon implementation and an important contribution to the closing of the coverage gap.

Environmental sustainability

The Office's activities in the field of environmental sustainability include activities to minimise or compensate for the environmental impact of its operations – such as reducing the EPO's CO₂ footprint and lowering its water, paper and energy consumption – and initiatives to promote the development and adoption of green technologies.

In 2020, the Office achieved **Eco-Management and Audit Scheme (EMAS) certification** and published its annual environmental report. 2020 was also the year that the Office celebrated its 25th anniversary of participation in the EMAS scheme. In 2021 the EPO will publish the next environmental report and undergo internal and external audits for EMAS certification. The Office also completed the design of its new environmental dashboard and made progress on the draft of a new environmental policy.

This year **paper consumption** has been significantly reduced as a result of increasing digitalisation through paperless search and examination and the use of digital annotation. In mid-May the Office transitioned to a print-on-demand of search files within the digital transition. Instead of printing the usual 1 000 search files per day (with an average of 50 pages of paper) the print-on-demand has resulted in only 15% of files being printed. The impact of these paperless workflows Office wide is currently estimated to be around one million sheets of paper per month. Individual paper consumption has fallen from 102 sheets per person per day in January to 48 at the end of 2020, as a result of teleworking and greater environmental awareness.

Paper consumption is also set to be further reduced in the course of the next year as the result of a continuing uptake in digital user services. In 2020 there was a 30% rise in the number of attorneys making use of the electronic mailbox – taking the total to 5 100. 70 digital opposition forms were also added to the 720 already online. Additionally, the Office expects further paper reductions from the digitalisation steps in examination awaited in early 2021.

The Office saw a drastic **reduction in its CO₂ emissions** due to almost no business travel by EPO staff, which has been enabled by remote teleworking. In the first three quarters of 2020 CO₂ emissions from business travel were reduced by 86% compared to the same period in 2019.

Lastly, to help ensure continual monitoring of sustainability performance and progress in achieving environmental goals, the Office will deploy the **new environmental dashboard** in January 2021. This will also help to create full transparency for the Office's internal and external stakeholders on a matter that is central to the Office's efforts to create a safer, smarter and more sustainable world.

The Office will endorse a **new environmental policy**, **revise its travel policy** and put a focus on **"green" procurement** to ensure that the Office buys environmentally friendly products and services. In all areas, the Office will actively seek the input and participation of staff and also make recommendations on how staff can reduce their energy consumption when working from home.

Societal impact

The EPO's social contribution to local communities in Europe and beyond is also a crucial element of its long-term sustainability as a public institution. The initiatives include outreach activities and initiatives to capitalise on the EPO's leading resources of patent information, as well as those aimed at fostering technological innovation and maximising the IP system's positive impact on the European economy.

In March 2020, the **Patent Index 2019**, which covers patent statistics and trends, was launched with a media campaign in member states and the other IP5 regions. Despite the media focusing heavily on COVID-19, the response was overwhelmingly positive: around 1 600 media reports, an equivalent advertising value of EUR 4.7 million and over 2.5 million users exposed to social media messages (+211% on 2019).

The **Patent Index 2020** will explain the latest patenting trends and discuss emerging technologies which are particularly interesting for the public. The first quarter of 2021 will see a milestone achieved with the creation of a central platform enabling users to explore and visualise European patent statistics.

In 2020, the Office also launched a new Fighting Coronavirus platform to help researchers to develop new vaccines, therapies and devices, in their fight against COVID-19. EPO patent examiners and data analysts compiled 276 datasets to support the important work of clinicians, scientists and engineers. The last of four categories – Technologies for the new normal – was released in November.

Utilising its leading databases of patent information, the Office has also continued to support growing levels of patent knowledge in 2020, with a series of high impact reports. Among others, the EPO's Chief Economist Unit published studies on Patents and additive manufacturing, Innovation in batteries and electricity storage and a Patent commercialisation scoreboard for European universities and public research organisations.

In 2021 the Office will **publish new studies** that assess and analyse the IP landscape, including:

- a new landscaping study on green energy in co-operation with the International Energy Agency,
- a study on innovative regional clusters in Europe,
- a new series of case studies on university technology transfers in co-operation with the European Patent Academy.

Using extensive patent information and co-operative research, the unit will therefore continue contributing to a better understanding of contemporary topics of relevance to the patent system and its stakeholders.

Early in 2021, the Office will consult the member states on the possible features of a **new EPO Observatory**. The Observatory will act as a hub to connect public and private stakeholders and a place to monitor developments in emerging technologies and how these affect the IP landscape. The consultation will help to finetune the Office's proposal, aimed to be submitted for adoption by June 2021, so that this new unit's organisational structure could start its operations in the second half of 2021.

The Office's **outreach and awareness** programme aims to raise awareness of patents and their positive economic and social impact. The activities below intend to inform and inspire the general public, younger generations and local communities, and foster staff engagement.

With the 2020 **European Inventor Award** postponed, a series of stories was launched in the autumn in the form of videos, podcasts and Facebook Live sessions. These featured former Award finalists and winners talking about how their inventions and careers have developed, and/or how they have contributed to the fight against coronavirus.

To mitigate the risks related to COVID-19 in 2021, the European Inventor Award will be planned as a digital event, in combination with some physical elements if possible. To attract young inventors, a new communication concept creating synergies with Award alumni and the current Award will be announced.

The Office will **strengthen relations with local partners** by sponsoring the One Young World Summit, which will take place in Munich for the first time; partnering with the City of The Hague on The International Open Day and Open Monuments Day; and opening its doors for a range of (virtual) events with local third parties. The art collection will go online, and a framework for local staff volunteering will be defined to foster staff engagement.

In order to **build a stronger brand**, its visual expression will be revitalised. A logo variant that is fully compatible with the EPO's digital channels and aligned with the existing logo will be developed to ensure brand consistency in all formats. Style changes will be implemented gradually.

Annexes

1. Lessons learnt after year one of SP2023

After the launch of the Strategic Plan (SP2023) in June 2019, the Office encountered a number of challenges during its implementation. Among others, the following questions emerged including: how do individual projects interact, are there any overlapping activities; and are project dependencies being properly managed?

As a first step towards addressing these issues, the Project Management Office conducted a lessons learnt exercise in July 2020. Its key findings are summarised below:

- **Managing deliverables:** The SP2023 has a very ambitious scope and a large number of initiatives were launched simultaneously. The lessons learnt exercise revealed a need to partly re-evaluate the Office's project portfolio, prioritise the delivery of its strategic goals and deploy resources accordingly.
- **Adopting a delivery pipeline approach:** In the first year of implementing SP2023 the Office defined over 150 projects and recruited almost as many talented staff members to manage them. In some cases, however, this granular approach resulted in unforeseen overlaps between projects. To maximise co-ordination between its activities, the Office decided to adopt a pipeline approach that set clear timelines for all programme and project deliverables.
- **Reorganising board meetings:** Monthly board meetings based on the five goals in SP2023 failed to reflect the different pace at which various programmes and projects were implemented. As of September they were replaced with cross-goal management meetings focused on specific topics. The agenda for these meetings and their timing is tailored to meet the most pressing ongoing needs of programme and project managers.
- **Launching deep-dive meetings:** The senior management is often required to give its steer on highly specific topics that are unsuitable for general discussions. To this end, deep-dive meetings were launched with the top management, selected experts and project managers.

2. Delivery pipelines

Based on all the planning work done previously, a clear visual representation was created for delivery pipelines, which extend across the various SP2023 goals. These plot key milestones and changes in the Office's business against a detailed timeline.

Building such pipeline views enable the Office to manage the dependencies between and within programmes and involve all stakeholders without losing sight of the big picture. In short, it shows exactly what to expect and when, facilitating transparent and consistent communication with all stakeholders.

Drawing on the initial lessons learnt in the first year of SP2023 and from the COVID-19 crisis, "delivery pipelines" were developed for both the patent grant process and corporate activities. In both cases the pipelines were initially built from an information technology perspective to reflect the importance of digital transformation for the Office's future sustainability, yet other initiatives, for example those supporting quality, are now also reflected in the plan. Work has also started on developing an IT co-operation pipeline.

In the future the delivery pipeline concept will be expanded to include non-IT related developments such as changes in HR policy, building infrastructure and international co-operation milestones.

The delivery pipeline views are already being used by the SP2023 boards to actively manage programme and project execution, to balance risks and benefits and to coordinate business change and communication.

In other words, pipelines not only help the Office to plan and prioritise upcoming work, they also showcase achievements to date and what the Office can expect to see in the near future. In this respect they form a solid baseline for any future adjustments in planning and prioritising deliverables.

3. EPO filing and grant figures

	2019 Actual	2020 Forecast	2021 Budget
Patent filings			
(a) Euro-direct	75 803	75 600	69 900
(b) PCT international phase	265 235	253 800	256 800
<i>of which EPO selected as ISA</i>	82 422	76 020	76 830
Total filings	341 038	329 400	326 700
EP applications			
(a) Euro-direct	75 803	75 600	69 900
(a1) ED first filings	27 615	27 690	25 420
(a2) ED second filings	48 188	47 910	44 480
(c) PCT entering regional phase	105 691	99 500	98 000
(c1) PCT not requiring supplementary search	54 264	51 385	49 823
(c2) PCT requiring supplementary search	51 427	48 115	48 177
Total applications	181 494	175 100	167 900
European patents published			
	137 787	128 115	117 806

Data as available on 18 September 2020.

4. Service objectives

The tables below show service objectives for 2021. Regular updates will be published on the EPO's website.

The EPO's objectives are grouped into two main categories: quality and timeliness. The Office has defined three levels for each indicator: "Excellence" (the level that the Office strives for), "Compliance" (considered acceptable) and "Actions needed" (steps to be taken to raise the performance back to "Compliance").

Quality

		2021 Objectives		
		Excellence	Compliance	Actions needed
% cases found compliant with quality criteria (without critical errors) ¹	Search reports	>97%	95 to 97%	<95%
	Grants	>90%	85 to 90%	<85%

Timeliness

		2021 Objectives		
		Excellence	Compliance	Actions needed
% standard search reports sent to applicant on time	For search, cases are non-standard when: (1) clarification of the scope of the search is needed, (2) there is no unity of invention or (3) the search report is incomplete	>95%	90 to 95%	<90%

¹ See CA/40/20 Add.1, page 27 for additional information on the compliance levels.

2021 Objectives

		Excellence	Compliance	Actions needed
% standard grants sent to applicants within 36 months from the valid examination request	For examination, cases are non-standard when: (1) oral proceedings are postponed, (2) an extension of the time limit to reply has been requested at least twice or (3) payment of fees has been delayed at least twice	>85%	80 to 85%	<80%

2021 Objectives

		Excellence	Compliance	Actions needed
% standard oppositions within 18 months from the end of the opposition period	For opposition, cases are non-standard when: (1) oral proceedings are postponed, (2) the opposition division includes a legal member or (3) there is more than one opponent	>55%	50 to 55%	<50%

5. Balanced Scorecard

Last year the EPO revised the Balanced Scorecard (BSC) to better monitor the benefits achieved thanks to SP2023 implementation and started a cascading-down exercise, building scorecards for each directorate-general (DG) and each principal directorate (PD).

The key performance indicators (KPIs) at the top level provide an overview of the Office's achievements on the path to achieving the five SP2023 goals (see Table 1).

Table 1 – Top level KPIs

Goal	KPI	Performance 2020**	Target 2021
Engaged and empowered	Staff engagement	63%*	69%
	Training and development	55%*	61%
	Collaboration	52%*	58%
Digital transformation	Availability of existing and new tools	93.0%	96.5%
	Processes digitalised	76.3%	78%
	Internal and external user satisfaction with tools	83.7%	86.5%
Master quality	User satisfaction with patent grant products and services	84.1%	85%
	Quality of search and grant	89.2%	90.5%
	Timeliness of examination	64.6%	80%***
Partner for positive impact	Geographical outreach	1.96 billion inhabitants	2.15 billion inhabitants
	Member states' participation in co-operation projects	76%	76%
	Usage of patent information	2.92 million visits	3 million visits
Secure sustainability	Paper consumption	60 sheets	45 sheets
	ISO certifications achieved	25%	60%***
	Coverage ratio	68.2%****	71.4% (2023)

* Baseline data from 2019 staff engagement survey.

** Measurements as per 4 November 2020.

*** New calculation method.

**** Expected 2020 performance according to estimates by PD Finance.

Realistic but challenging targets for all KPIs are being set based on achievements to date and anticipated developments in 2021.

Given the fast acceleration of the digital transformation and the excellent performance in 2020, the "Processes digitalised" KPI needed a higher target for next year.

The EPO's aim to continuously improve user satisfaction is reflected in the increased target of the corresponding KPI "User satisfaction with patent grant products and services".

The target for "Geographical outreach" is 6% higher than this year. The monitoring of "Member states' participation in co-operation projects" KPI started only in September and the target is set as the current performance.

The remarkable achievements measured by the "Usage of patent information" indicator have raised the expectations for 2021 and led to a more demanding target.

The target for "Paper consumption" has been made more challenging considering the outstanding achievements in 2020 thanks to digitisation and increased teleworking.

The target for the "Coverage ratio" indicator reflects a longer term perspective and indicates the value aimed for in 2023.

"Staff engagement", "Training and development" and "Collaboration" have not been measured in 2020. These KPIs keep the same targets as set in 2019.

The calculation method for "Availability of existing and new tools" has been reviewed in 2020 to better describe the reality of system performance and properly account for the different outages. The effect of major efforts to replace outdated and legacy technologies in the IT infrastructure will start to become visible in mid-2021. The target for 2021 will therefore remain the same as in 2020.

No changes on the 2020 targets are envisaged for two other indicators: "Internal and external user satisfaction with tools", "Quality of search and grant".

The way two indicators are measured has been adapted. Reducing the examination stock and rebalancing the workload move the Office towards a new steady state. To better represent this shift, "Timeliness of examination" now monitors the on-time delivery of standard examination products only. "ISO certifications achieved", as now measured, includes not only processes under the ISO 9001:2015 standard, but also those relevant to ISO 45001 (occupational health and safety), ISO 27001 (information security) and the Eco-Management and Audit Scheme. Since new baselines have been established, new targets have also been set for 2021.

The BSC is a dynamic management tool which is adapted at regular intervals to reflect the changing focus of SP2023 implementation over time. In 2021 the Office will again review the KPIs, and if needed their targets, to ensure that they remain relevant measures.

To build a common understanding of the strategic goals and ensure an organisation-wide alignment of the efforts, in 2020 the Office undertook a comprehensive cascading-down exercise and created 19 BSCs covering all DGs and their corresponding PDs.

From January 2021, the aim is to monitor as many as possible of the KPIs on the cascaded BSCs against the targets set. Progress will be published and available to staff. This will ensure even better alignment with the SP2023 goals.

6. Workforce planning

Following the modernisation of the EPO's employment framework in 2018, each year the Office presents an orientation paper on recruitment to the Administrative Council for its opinion.

To provide the current context for workforce matters, this annex outlines the financial, organisational and COVID-19-related situation.

From a financial perspective, staff costs form the main pillar of the EPO's budget operating expenditure. The financial study conducted in 2019 confirmed the strong dependency between the incoming workload and the (examiner) workforce. The incoming workload depends on macroeconomic parameters. The adopted base 2 scenario of the financial study assumed a global economic recession occurring in 2020, followed by a progressive recovery. In this scenario, the workforce would decrease in the midterm to avoid potential temporary overcapacity in the short to medium term. After this initial decrease, the examiner workforce would then grow or decline in line with the incoming workload. Impacts of digitalisation and potential productivity gains need to be considered as well.

Learning from the 2008/09 financial crisis, considering the COVID-19 pandemic and based on the anticipated decrease in gross domestic product worldwide, the Office currently expects a 10% reduction in incoming applications in 2021 compared with the 2020 budget indications.

As a consequence, it was decided to take a cautious approach to staffing. In May 2020, a temporary freeze on external recruitment was put in place, and internal rebalancing of staff and workload has been prioritised. External recruitment remains possible on an exceptional basis and where there is a strong business case.

The estimated headcount for 2020 is around 6 400 staff, a decrease of around 200 compared with 2019. The percentage of budgeted posts occupied by staff on fixed-term appointments is 4.1% at the end of 2020, slightly up from 3.9% at the end of 2019, but still far from the 20% ceiling.

The Office estimates that in total approximately 2 500 staff, including 1 400 examiners, will leave the EPO in the next ten years, which constitutes both a challenge and an opportunity. This will help the EPO to adjust naturally to the current trend in terms of workload and to take full advantage of the expected increase in productivity made possible by digitalisation.

Overall, 36 staff (comprising 17 different nationalities) were recruited externally and 167 internally in the first ten months of 2020. Building on past successful rebalancing exercises in the patent granting process, 2020 marked the next chapter in favouring internal rebalancing and mobility in the Office. It aims to make the best possible use of talent while offering career mobility and development opportunities.

It is assumed that the decrease in the overall headcount seen in 2020 will continue in 2021. Assuming a decrease in incoming workload, and given the uncertainty caused by COVID-19 and the subsequent recruitment freeze, the Office anticipates a minimal amount of recruitment in 2021.

In the patent granting process, no external examiner recruitment is planned for 2021. As in 2020, job fairs and rebalancing between technical fields, supported by coaching and reskilling where needed, will ensure that operations run smoothly. As part of SP2023, current internal skills and talent will be mapped systematically to support further internal mobility.

For formalities officer roles too, no recruitment is planned for 2021. This is in line with the general freeze on recruitment and an anticipated decrease in capacity needs as a result of a reduction in the workload and increasing digitalisation. Pending confirmation of these trends, rebalancing and a review of how formalities officers are organised will enable business continuity in the different directorates.

With regard to the Boards of Appeal, to meet the objectives set and reduce the number of pending cases, the total number of permanent posts was increased in 2019 and 2020. In total, the Boards of Appeal will have 279 permanent posts in 2021 (215 board members and chairpersons and 64 staff in administration). No new board will be created, to underline the fact that the additional posts are temporary and earmarked for dealing with the backlog. It is expected that the envisaged drop in incoming workload will also have an impact on the workload of the Boards of Appeal; a review will take place in the course of 2021.

In the other areas (DGs 0, 4 and 5), the headcount is foreseen to slightly decrease. External recruitment might exceptionally be necessary if it is critical to SP2023 implementation and talent and expertise are not available internally. Internal workforce solutions using partial and full mobility remain the priority.

Overall, in line with the base 2 scenario from the financial study, and given the current economic and pandemic crisis, the Office will extend the cautious approach adopted in 2020 into 2021. The situation will be carefully monitored, and the target organisations of the different business areas will be reviewed in 2021 to take into account the "new normal" in terms of workload trends and reviewed business plans.

In view of its impact on the Office's long-term sustainability, external recruitment will be on an exceptional basis. Internal mobility, development plans and a review of the recruitment strategy favouring active sourcing and talent pipelining will support both continuous improvement and business continuity.

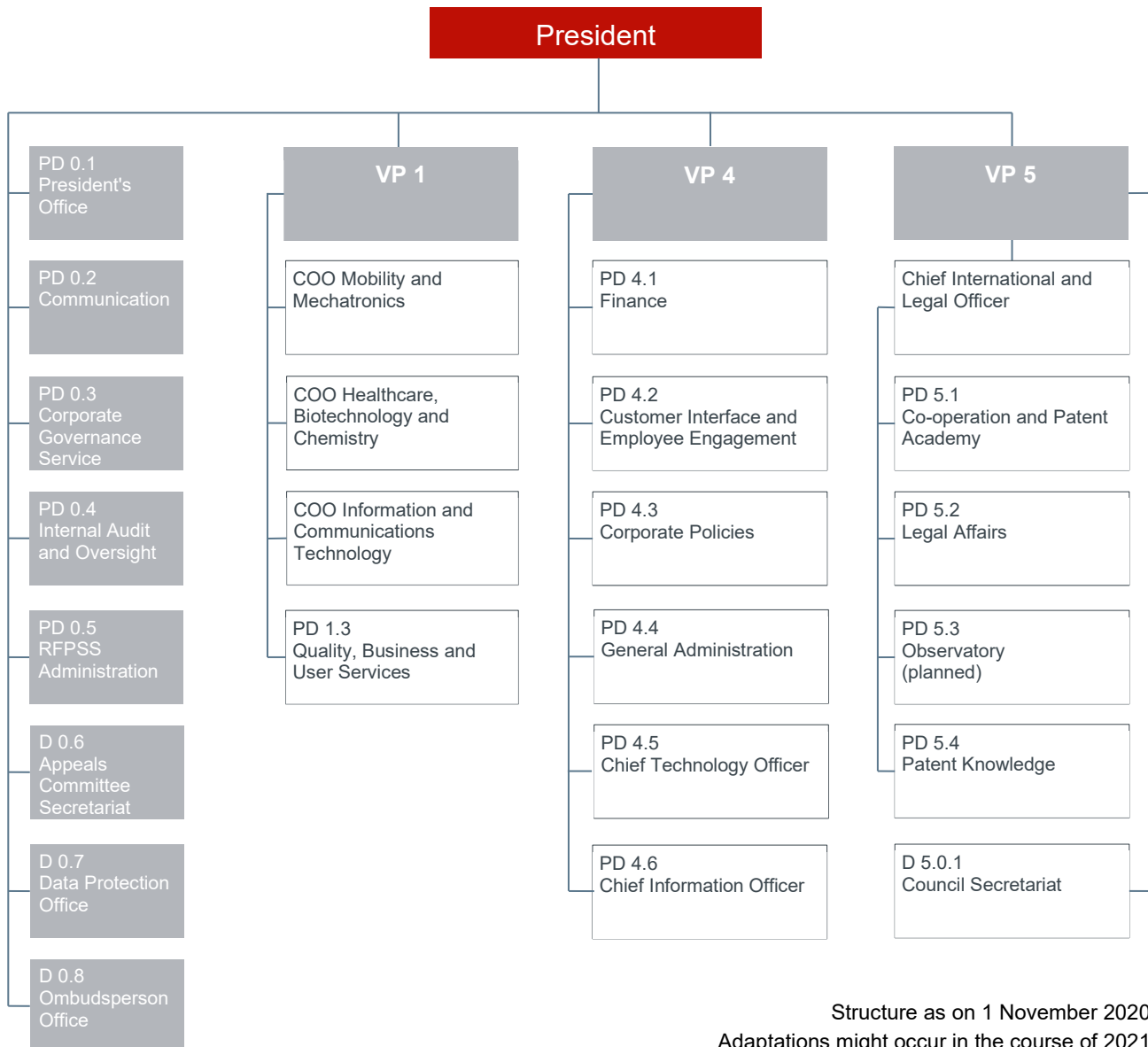
If the economic context in 2021 is more favourable than expected, leading in particular to more patent applications than planned, the Office can react quickly thanks to the large central reserve of posts already budgeted for (354 vacant posts) and the talent pipelines with suitable candidates on waiting lists which the Office can easily activate.

7. Financial resources

Budget estimates for the EPO's operations are formalised in CA/50. Programmes and projects needing additional funding, such as the building projects, will specify these needs in the respective project briefs, which will be individually approved by the Budget and Finance Committee and Administrative Council.

8. Operational structure

The operational structure, as defined last year, supports SP2023 implementation and strategic options. It enables the creation of a leaner organisation that promotes open communication, empowerment and accountability.



Structure as on 1 November 2020.
Adaptations might occur in the course of 2021.