Strategic Plan 2023

Contents

MISSION

Values

TRUST
FAIRNESS
RESPECT
ADAPTABILITY
COLLABORATION
COMMITMENT TO EXCELLENCE

ENGAGED AND EMPOWERED
DIGITAL TRANSFORMATION
MASTER QUALITY
PARTNER FOR POSITIVE IMPACT
SECURE SUSTAINABILITY

VISION

Committed to excellence

Strategic Plan 2023

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

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

1. Foreword by the President

When the contracting parties to the European Patent Convention put pen to paper in 1973, they signed a treaty that laid down the rights and obligations of both the member states and the organisation they had created. But more importantly, they brought to fruition the hopes of all those who believed that a European patent and a central granting authority would support innovation in Europe and contribute to the continent's prosperity. Crucially, the member states put their faith in an international institution that would assume responsibility for the patent granting process.

In the four decades since the treaty was signed, it is fair to claim that their faith in us has been rewarded. Today the European Patent Office (EPO) is Europe's second largest international organisation and employs nearly 7 000 highly qualified staff. Their work – supported by a myriad of close relationships with the EPO's stakeholders – has earned us a reputation for delivering high-quality products and services. The Office has become a leader in providing patent information and supports the spread of patent-related knowledge and skills. This has contributed to more effective IP management both within and outside of Europe.

In short the EPO has fulfilled its mission and in doing so, has become a valuable resource for the innovation sector and for all of Europe. The impact of that is not to be underestimated: the 38 member states of the Administrative Council, the staff of the EPO and myself as President are not the owners of this Office. We are simply the current custodians of the EPO and all of us carry the responsibility of handing this organisation to the next generation of Europeans in the very best possible condition. It is simply too valuable not to.

We all have a vision of what we want to pass on to those who follow, whatever we do in life and whoever we are. This Strategic Plan is our vision of the patent office we would like to create and, more importantly, see endure for decades to come. There is little point in burning brightly for just a few more years. Our organisation needs to be agile and adaptable to changing conditions, so that we can deliver excellence over a sustained period of time, regardless of the challenges posed by a dynamic patent system.

To gain a better idea of how exactly to achieve a sustainable office that delivers excellence, we enlisted the help of our stakeholders. Given their varied nature and diverse needs, our stakeholder consultations were wide and extensive. The results were clear: our member states need an Office that can be the advocate of patents in Europe and promote the development of an effective patent system. Our inventors want high-quality patents offered via a range of new and innovative services, while our staff want a best-in-class employer that will help them to realise their full professional potential and help fulfill their professional ambitions. These are just a few examples of the many deliverables expected of the EPO.

> *We are deeply grateful to those stakeholders who provided feedback on this Strategic Plan.*

Their input has given us a deeper understanding of the issues that they face, their wishes and their hopes for a successful patent office and European patent system. Their feedback has also given us key insights into how we can set about delivering what our stakeholders need. Above all, we have been able to ensure that the vision presented here is a shared vision.

The Strategic Plan provides a clear roadmap for achieving that vision distributed over five goals. It outlines the actions and initiatives to be taken and the improvements required if we are to deliver sustain-ability and excellence. It also explains how we intend to achieve the five strategic goals not only on behalf of our stakeholders, but in partnership with them too. After all, this is a joint venture for all those involved and the Plan relies on effective and transparent co-operation with our stakeholders – in the same spirit of co-operation that has stood the EPO and its users in good stead over the last four decades.

We do not claim that we will accomplish every single measure outlined in the following pages within the next four years. Some of these actions may well turn out to be longer-term projects. The Plan is not an exhaustive list of the improvements we intend to make over the next five years either. However, it accurately reflects our aspirations and our enduring commitment to delivering excellence.

2. Our story so far

The European Patent Organisation has its origins in one of the founding texts of the modern era: the Paris Convention of 1883.

This was one of a series of international agreements signed in the field of technology in the late 19th century to facilitate the spread of trade and economic growth. Throughout the decades that followed, the vision of establishing international institutions that would enable technology and prosperity to flourish beyond national borders was pursued.

It was in this spirit, and in the context of constructing a unified, peaceful Europe, that the Munich Diplomatic Conference was held in 1973 to establish a common system of European law for the grant of patents – the European Patent Convention (EPC).

The EPC established the financially autonomous European Patent Organisation, governed by the Administrative Council, which comprises representatives of the contracting states and supervises the functioning of the European Patent Office, the Organisation's executive arm.

The EPC entered into force on 7 October 1977, following ratification by the organisation's first seven members (Belgium, Switzerland, Germany, France, Great Britain, Luxembourg and the Netherlands). The EPC ensures that the decisions taken by the European Patent Office can be appealed to its Boards of Appeal. Although integrated into the Office's organisational structure, the Boards of Appeal are independent of the Office in their decisions and are bound only by the EPC.

European Patent Organisation

Member states

European Patent Convention

Administrative Council — supervises — European Patent Office — — — Boards of Appeal

EPO - Strategic Plan 2023
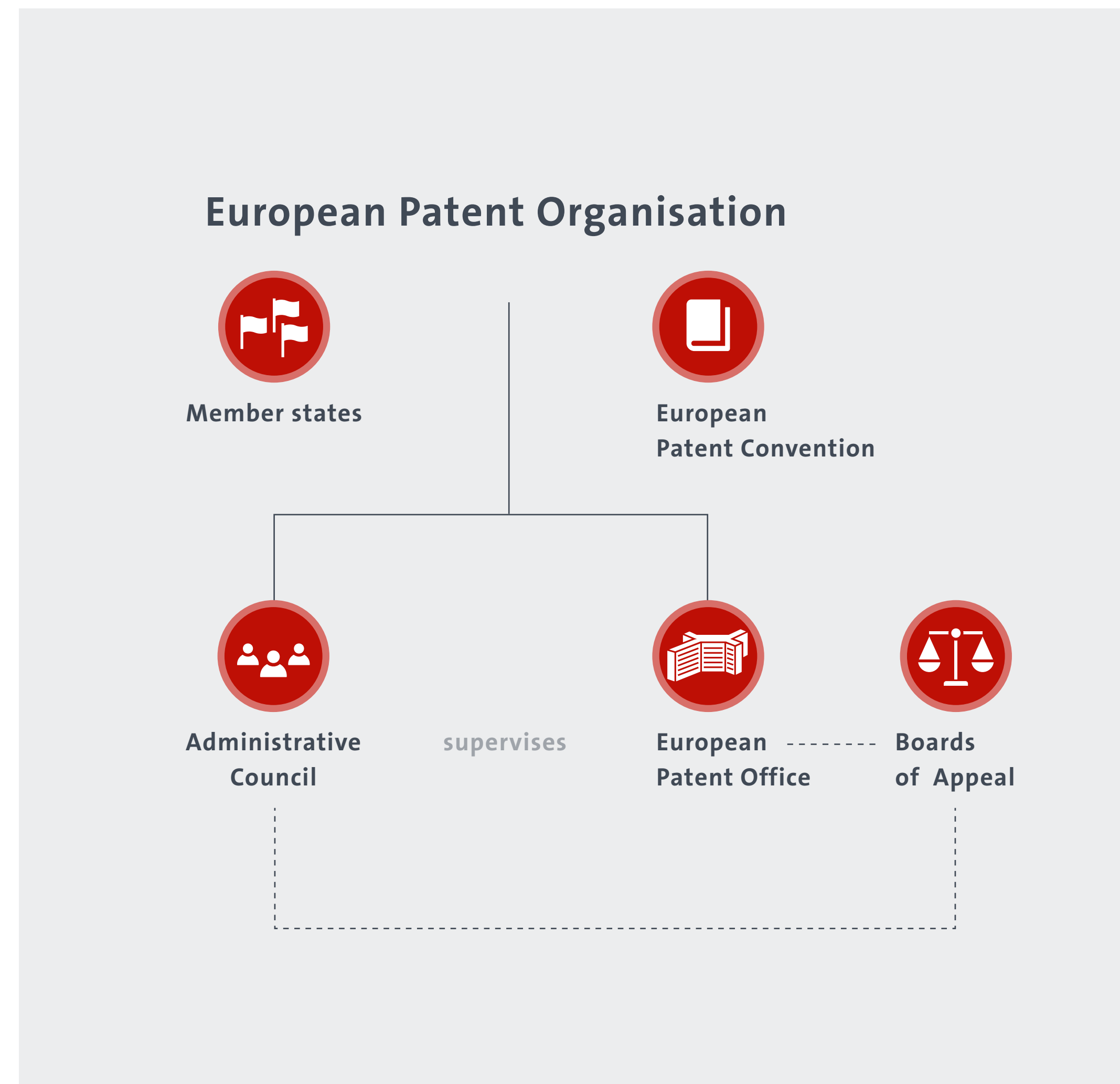
The European Patent Office opened its doors on 2 November 1977. Its first decades were marked by success, as standards and working practices were established and demand for its services greatly exceeded initial estimates. This eventually resulted in the Office becoming financially autonomous in 1981, a feature that has shaped its evolution to this day.

Within just a few years of its foundation, the European Patent Organisation earned a respected place among Europe's institutions and was widely regarded as an example of how pragmatic co-operation could lead to success. It also quickly built up an enviable reputation for quality, reliability, and technical excellence among its users and stakeholders.

The political and technological changes that swept through Europe with the fall of the Iron Curtain and the advent of the digital and biotechnological revolutions brought with them profound challenges for both the Office and European Patent Organisation. The EPO was confronted with many operational challenges arising from an increase in its workload and the resulting expansion of its workforce, as well as the technical issues associated with continual growth in new technologies and patent documentation.

In its early years the EPO used millions of documents and meticulously archived tonnes of paper, but the introduction of the EPOQUE system in 1989 made it possible for examiners to find and view documents from an expandable number of electronic databases. After subsequently moving from searching image files to searching full text (EPOQUE II), the EPO had established the most advanced system for searching prior art in the world by 2000. By 2018, searchable documentation comprised some 179 databases featuring 1.3 billion technical records and machine translation was also available.

The challenges of growing patent activity worldwide created a need for new avenues of international co-operation. The EPO played a central role in setting up the Trilateral group of leading patent offices, comprising the EPO, the US Patent and Trademark Office, and the Japan Patent Office. Since 2007, the EPO has played a key part in developing the IP5 co-operation framework, which in addition to the EPO, USPTO and JPO, also comprises the rapidly developing Korean and Chinese patent offices.

The EPO's initial growth phase saw the number of applications exceed 60 000 for the first time in 1990. The signature of the TRIPS agreement in 1994 heralded a second period of rapid growth. By 2018 the EPO was receiving some 174 000 applications annually, which is about half of all patent applications filed in Europe.

Long-term growth in applications
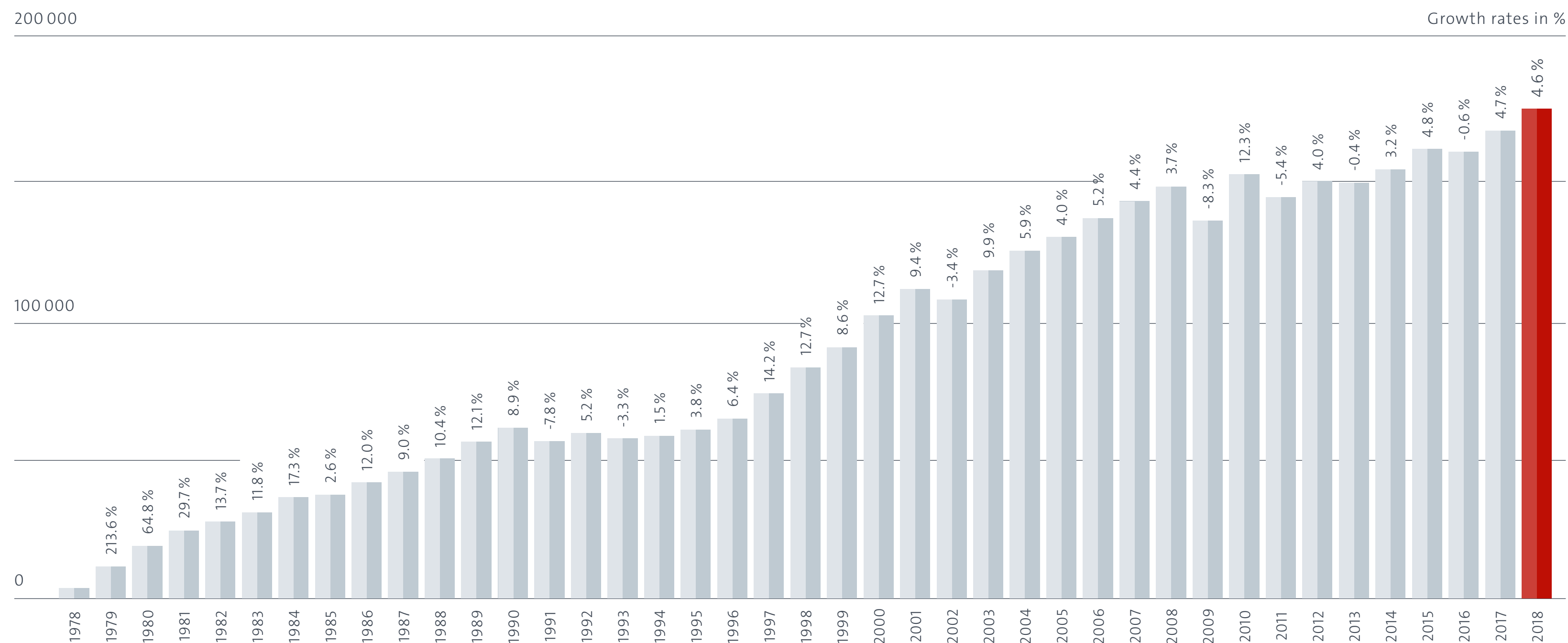
European patent applications include direct European applications (Direct) and international (PCT) applications that entered the European phase during the reporting period (PCT regional).

As well as developing in search and examination work, the EPO also took on new responsibilities in the field of patent information in 1990 and opened a new branch in Vienna on its integration of INPADOC. The EPO became one of the world's leading providers of patent information, creating the largest source of freely-available information on state-of-the-art technology anywhere in the world via the Espacenet database. It was also at the forefront of efforts to break down language barriers with its groundbreaking machine translation system.

As a result of these activities, the EPO had to recruit additional examiners and support staff to meet the increased workload and embarked on a phase of expansion as of the mid-1990s. When the Office first opened its doors, it employed just a few hundred staff, but today its workforce has grown to around 6 850 employees, of whom some 4 300 are highly-trained patent examiners.

A series of ambitious building projects to accommodate additional staff was initiated, notably with the purchase and further development of the PschorrHöfe in Munich and the construction of the Hinge in The Hague in the 1990s. The inauguration of the New Main building in The Hague in 2018 and the planned demolition of the old Tower building complete the first long phase in the lifecycle of the Office's physical premises.

During the 1990s, there was also a growing realisation that the original text of the EPC had to be modernised and made more flexible in the light of experience, and particularly to give a sound basis for the BEST initiative (Bringing Examination and Search Together). Other challenges had emerged in wider discussions of the patent system like those at the Intergovernmental Conference held in Paris in 1999 and in the European Commission's Green Paper on the Patent System, which reflected growing concerns about costs and delays in the system. The aim of the Diplomatic Conference convened in Munich in November 2000 was "to render the system still more efficient and cost effective and fully tailored to users' needs". Moving into a new millennium, its successful conclusion once again demonstrated the appeal of European co-operation in patents.

The continued expansion of the European Patent Organisation – between 1997 and 2010 the number of contracting states increased by an average of one per year – gave rise to a debate on the balance of power between the European Patent Office and the national patent offices. A discussion of the "centralisation" issue was inevitable and necessary. A consensus was reached that accommodated the specific needs and aspirations expressed by some contracting states; and also confirmed the central role played by the European Patent Office in Europe, as well as reinforcing its credibility and influence in the international patent landscape.

In the years since 2010 the Office has concentrated on increasing its efficiency while maintaining and even improving its quality. Significant progress has been made in reducing backlogs and modernising employment conditions. Institutionally, the Office and the European Patent Organisation have played a major role in working towards the much anticipated unitary patent, as well as breaking new ground with validation agreements, which allow the rights granted under the centralised European procedure to take effect in non-member states.

Member states (38)   **Extension states (2)**   **Validation states (4)**

Cambodia
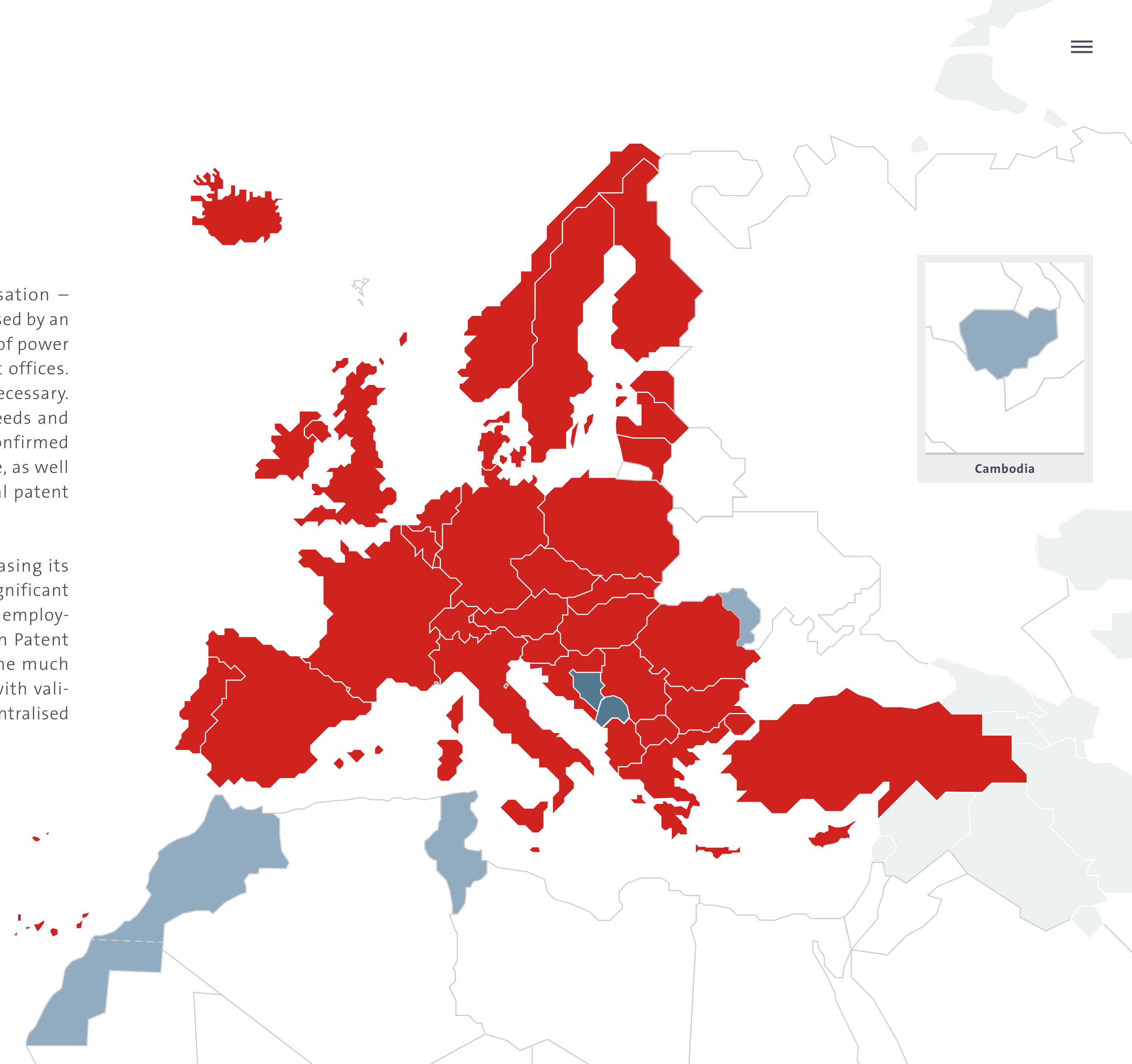
3. New challenges in a changing world

Since its creation, the European Patent Organisation, acting through the Office as its executive arm, has fulfilled its mission as a financially autonomous institution and has become a success story of European integration and a global standard-setter in the granting of patents.

However, in an increasingly networked and globalised world economy, the rise of new players in the world of patents, constantly evolving stakeholder expectations and technological change mean that the demands placed on the Office are growing steadily in terms of their diversity and complexity. Against this background there is a shift from traditional concerns over efficiency to a holistic regard for effective improvement.

The main challenge now is to ensure that the EPO achieves sustainable progress in a rapidly changing world.

The EPO's chief objective is to sustain the high quality of the products and services on which it has built its reputation. Along with the timely delivery of its products, the EPO has to strive to offer searches that are complete, an examination procedure that is predictable, consistent and provides the highest presumption of validity and an opposition procedure that is a model of fairness.

The significant progress achieved by the Early Certainty initiatives now presents an opportunity to review and validate our top-priority objectives in terms of timeliness and adjust them to meet the evolving needs of our stakeholders.

In today's fast-changing global technology landscape, the EPO has to ensure that it masters the rapid growth of prior art and the increasing complexity of inventions. The completion of a recent reorganisation within the Office, more geared towards a fully digitalised end-to-end patent granting process, has created opportunities to make further improvements in terms of quality and efficiency.

Europe's global economic competitiveness also depends on ready access to patent protection and patent knowledge at both a European and an international level. To give the European patent system a truly global dimension, the EPO needs to further strengthen co-operation with its member states, with European institutions and agencies and with international organisations and partner offices around the world. Despite its success, the European patent system to some extent still remains complex and costly. The EPO and European Patent Network (EPN) will work together to better include small players like European SMEs or universities and help them to exploit the full commercial potential of their inventions. As innovative businesses increasingly seek protection in different geographical markets, further co-ordination between offices is also required to reduce the duplication of work and facilitate the acquisition and management of patent rights around the world.

To ensure that the Office will continue to play its role and strengthen its position, a renewed focus must be placed on its long-term sustainability. The European Patent Organisation's successful history of self-sustained financial autonomy does not secure its future, so it is vital to identify measures that will promote effectiveness and transparency on a sound, sustainable financial basis. Taking these measures will enable the Office to master its own destiny and deliver improvements that benefit all of its stakeholders.

A strategic financial study has been carried out to examine the current context and how the Office's financial situation has evolved in the light of recent developments. These include faster-than-expected progress in reducing historical backlogs, a maturing workforce and pension scheme, the introduction of a more actively managed treasury fund, as well as macroeconomic factors like the prevailing low interest rate environment.

The results have been communicated to all stakeholders, and especially to EPO staff. Possible actions arising from the financial study that could secure the Office's long-term financial sustainability will be addressed as of the autumn 2019.

Beyond a purely financial perspective, the Office needs to be innovative in the way it defines its products and services, as well as its processes and its relationship with stakeholders. It must also better explain the way it defines its priorities and plans, monitors their implementation, and measures their benefits. As the general societal expectations in terms of transparency and openness have vastly increased in recent decades, it is indeed one of the core tasks of the Office not only to explain what it is attempting to achieve, but also how it plans to realise its goal, what progress has been made and, where necessary, what corrective actions have been identified and taken.

As a knowledge-based organisation, success will largely depend on the commitment of the EPO's highly-educated employees, and on the Office's capacity to help them develop their full potential throughout a long-term career. To adapt better and faster to change, the EPO should not only continue to recruit, attract and retain top talent, it also needs to become a learning organisation, supporting collaboration in a vibrant and energising environment that creates a sense of belonging and pride.

In addressing these challenges, it is clear that greater emphasis on collaboration and co-operation within teams and examining divisions will play a key role in enhancing knowledge sharing, job satisfaction, and promoting a sense of shared ownership and responsibility. Combined with a more comprehensive approach to lifelong learning for staff, including certifying their levels of skill acquisition, a robust set of policies will be adopted to meet future demands and rectify current areas of concern, as revealed, for example, in the recent staff engagement survey.

The commitment and dedication of the EPO's highly qualified staff is, of course, critical for these purposes. A close dialogue with the Office's stakeholders will ensure continuous monitoring of the progress being made, based on a shared understanding of quality.

With the growing importance of IP rights in recent years, there is an increasing demand among stakeholders for greater awareness of the impact of the European patent system. There is a need to address this heightened interest and sensitivity with objective, broad-based and inclusive approaches to measuring and evaluating developments in the IP system. The creation of a co-operative platform that can deliver economic and technological analyses to support the work of the EPO and national patent offices will thus be a priority.

The Office should also actively practise social responsibility as an essential strategic consideration and, for that purpose, promote stakeholder-oriented behaviour in its organisational culture.

The Office will seize opportunities offered by technology to deliver a comprehensive digital transformation. The Office needs to invest in technical infrastructure and improve applications that are offered to its stakeholders. Closer collaboration between examiners and formalities officers reduces handover delays and errors whilst preparing the way for the digitisation of the end-to-end patent process. The IT operating model will be transformed in terms of structure, governance and processes. The objective here is to improve, by becoming more agile and bridging the gap between development and operations, making strategic sourcing more professional and increasing transparency between business units and IT. The focus on effectiveness will be further enhanced through the promotion of an integrated digital framework for the patent granting process that will be gradually implemented. In addition, more flexible working structures and methodologies can be adapted and aligned to an evolving management landscape. The integration of all key performance indicators will allow for continuous benefits monitoring, actively supporting the top management's decision-making process, and helping to improve transparency for governing bodies.

4. A strategy for a sustainable future

As an international organisation, the EPO has an obligation to consider the wider impact of its actions when contemplating how to meet future challenges. Inevitably the Office has to pursue an approach that creates long-term value, not only in terms of its financial sustainability, but also in terms of environmental and social sustainability.

The core concept of sustainability is about making strategic and operational decisions that avoid burdening future generations with inherited debt and allow them to enjoy at least the same level of wealth and welfare as we do today. In conducting our business in a sustainable manner, we believe that the Office will flourish and achieve higher levels of excellence, not just in our lifetime, but far into the future.

Detailed analyses of IT, staff engagement and the EPO's finances have shown that change is necessary to ensure a successful and sustainable future. We are convinced of the need to adapt and to co-operate, both at an organisational and individual level, if we are to close the gap between the situation today and the sustainable organisation of tomorrow. We need to go through a change and learning process together. This is the reason why we have added adaptability and collaboration to the EPO's values, together with a commitment to excellence.

Success will depend on the joint capacity of our governing bodies, staff, management and users to overcome the challenge of change together. Building on the principle of "leaving no one behind", the Strategic Plan emphasises a holistic approach to achieving sustainable progress. Stakeholders will be far more closely involved in our decision-making processes, making it possible to jointly prioritise their needs in a spirit of goodwill and co-operation.

5. Current capabilities

Throughout its forty-two year history the EPO has built up specific capabilities that have enabled it to become one of world's leading IP offices in a relatively short amount of time. Its achievements to date were based upon a set of attributes that still drive its success today.

Highly skilled experts and committed staff

The EPO's 6 850 staff are at the centre of its capabilities. The EPO's core business is powered by 4 244 highly trained examiners, all operating at the cutting edge of technology, and covering diverse technical fields, as well as 627 formalities officers. In addition the Office comprises specialists in law, formalities, translation, IT and a range of other expert roles in corporate services. As an international organisation, the Office enjoys immense cultural diversity and currently employs staff from 35 different nationalities. All staff are either already capable of, or training to work in English, French and German.

As an employer, the EPO is fully aware that its staff constitutes one of its most valuable assets for delivering high performance over the long-term. The Office therefore supports its staff with extensive training to ensure that their skills and knowledge are geared towards delivering the highest quality patents.

Adaptability and innovation

Throughout its forty-two-year history, the EPO has consistently shown its ability to respond to challenges and changes in the international patent landscape and manage evolutions in the IP system. Demand for patent protection has risen, and the EPO has increased its production and productivity. Users have asked us to grant patents faster. The EPO has responded with better timeliness and innovative initiatives such as Early Certainty and PACE. The EPO has been able to remain an innovator in quality levels by capitalising on its expert workforce, and co-operating with other member states and partners around the world.

The Office's ability to respond to the needs of member states and to offer innovative services was recognised when it was given responsibility for administering and granting the unitary patent. European Union member states have entrusted the EPO with delivering a new form of patent protection – in addition to the classic European patent – which will provide users with greater legal certainty and simplified administration at a lower cost.

Extensive networks

The EPO is an organisation founded upon the principle of co-operation. By working with its member states and within the EPN, the EPO has been able to contribute to a stronger and more stable European patent system. Meanwhile its growing network of international partners, including the IP5, Trilateral and non-European patent offices, is helping the EPO to master the challenge of growing volumes of prior art and offer greater harmonisation and more new services.

At the same time, close relations with an extensive network of user associations gives the EPO better understanding of our applicants' needs and requirements. Through bilateral meetings, surveys and consultations, the EPO's relations help it to obtain vital input when developing new products.

Regular contact with policymakers such as the European Commission and the European Parliament are also essential for ensuring alignment with applicable legislation such as the EU Directive on the legal protection of biotechnological inventions (98/44/EC), while meetings with representatives of national governments help to raise awareness of the EPO's work.

Leadership in patent documentation

Since its creation, the EPO has gathered vast experience in collecting and using patent informa-tion. The quality of the EPO's products is rooted in its efforts to constantly enrich its collection of patent and non-patent Literature (NPL) documentation, and the exploitation of this literature by its expert staff. Today, a comprehensive patent application search draws on 1.3 billion of technical records in 179 databases, leading to about 600 million documents appearing in search results on a monthly basis.

World's largest collection of prior-art documents

1.3 billion records of patent and non-patent literature

Full coverage of Asian patent literature: **50 million** records

Machine translation from **31 languages** into English

Standards documentation: around **3.2 million** documents

179 databases

Over the years, the EPO has developed a unique ability to search the ever-increasing volume of Asian patent documentation, as well as highly specific sources such as standards databases. New technologies like big data analytics and artificial intelligence are now boosting its ability to exploit these databases to improve the efficiency and quality of its products and services, as illustrated by its new translation tools that break down language barriers.

6. The Strategic Plan planning process

The Strategic Plan (SP) drafting process was launched in December 2018 with an initial meeting of the EPO's Management Advisory Committee (MAC). Based on input from across the EPO, MAC members identified and contributed a number of key themes, which were then amended and expanded, based upon subsequent further advice and consultation with the EPO's various departments.

To ensure that the Strategic Plan balanced the needs of all stakeholders, a wide and inclusive consultation process also provided an opportunity for staff, member and non-member states, user groups and members of the public to submit their views on the strategic issues facing the European Patent Office. The consultations were structured to give all participants maximum flexibility when providing feedback. They were also offered the opportunity to provide their input on a wide range of issues concerning the EPO and the European patent system.

Two different external consultancies were commissioned to provide independent audits on IT and finance too, providing accurate assessments of the EPO's IT capabilities and its long-term financial prospects.

Input for the Strategic Plan

Audit on automation
Independent assessment
of the IT Roadmap
achievements
From Sept. 2018 to Jan. 2019

**Consultation
with non-member
states and over
100 user groups**
From Dec. 2018 to
mid Feb. 2019

**First public
consultation online**
From Jan. 2019 to end Feb. 2019

| 7/18 | 8/18 | 9/18 | 10/18 | 11/18 | 12/18 | 1/19 | 2/19 | 3/19 | 4/19 | 5/19 |

**One-to-one
staff meetings**
Over 1 000 meetings
From July 2018 to Apr. 2019

**Consultation
with member
states**
From Nov. 2018 to Feb. 2019
and in May 2019

Financial study
Addresses all business
challenges to
ensure long-term
sustainability
From Dec. 2018 to Apr. 2019

**Staff
engagement survey**
Completed by 85 %
of all staff members
From 31 Jan. to 28 Feb. 2019

**Publication of draft
and second public
consultation online**
From 18 Apr. to 10 May 2019

Sources of input for the Strategic Plan

One-to-one staff meetings – The President of the Office organised over
1 000 one-to-one meetings with individual staff members lasting between
15 and 20 minutes to gather their direct feedback. These meetings were
carried out on a first-come-first-serve basis following a call for interest
in July 2018. Participants were also invited to submit follow-up infor-
mation, which was further analysed for its possible inclusion in the
Strategic Plan. Meetings were also allocated to ensure representation
from a broad cross-section of the Office. An overview and analysis of
the participation rates was provided to staff in April 2019.

Staff Engagement Survey – From 31 January to 28 February all staff
were able to take part in an extensive staff survey developed by repre-
sentatives of the Office, including staff representatives, in partnership
with the external survey provider Willis Towers Watson. The survey was
entirely anonymous and confidential and was completed by 85% of staff
members. The results were communicated to staff through a series of
presentations and their line management as of April.
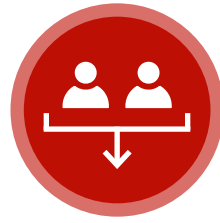
Input from staff representatives – Input from staff representatives has been gathered via written contributions received from the Central Staff Committee (25 January 2019), the Local Staff Committee Berlin (9 May 2019) and SUEPO Vienna (10 May 2019). Feedback was also submitted by the Association of EPO pensioners (30 April 2019). In addition, meetings were held on general matters concerning the future of the EPO between union / staff representatives and the President and other managers. Working groups were also convened with staff representatives on specific issues including the performance management system, resources and communication channels for staff representatives, actuarial funding valuation, and remuneration and social security.

Audit on automation – A 12-week audit of the EPO's IT automation capabilities took place from September 2018 to provide an independent assessment of the achievements made under the IT Roadmap (2011-2018). The report by Boston Consulting Group was based on four pillars: an IT roadmap and lessons learned, target operating model, architecture and technology, and staff motivation and knowledge retention. It proposed a number of recommendations, including specific features of future IT functionalities and a baseline for the future target state.

Financial study – From December 2018 to April 2019 Oliver Wyman Mercer carried out a new long-term financial study to address the business challenges that have emerged since the last financial study in 2016. The study was based on four objectives: to develop financial scenarios, model a set of financial statements on a 20-year horizon, review and define strategic directions to ensure long-term sustainability and independence, and find a trade-off between a reasonably-sized examiner workforce and stock levels based on incoming workload forecasts. The results were presented to the EPO in April 2019 and potential courses of action resulting from the study will be considered as of October 2019.

Consultation with member states – As members of the European Patent Network and the European Patent Organisation, the EPO's member states were invited to provide their input between November 2018 and February 2019. They were asked to give their views on the key challenges facing the patent system and how co-operation can be fostered between the EPO and its member states. The feedback from member states was collated and analysed for consideration when drafting the Strategic Plan. In addition, the annual meeting on co-operation with member states held in May 2019 offered a forum for providing feedback on the Strategic Plan.

Consultation with non-member states and user groups – In December 2018 over 100 user groups, including SACEPO (Standing Advisory Committee before the EPO) members, were invited to provide their input by mid-February on the future strategic direction of the Office to encompass a broad range of feedback. Participants were invited to submit their suggestions on how co-operation could be enhanced between the EPO and the organisations approached, as well as their views on the key challenges facing the patent system.

Public consultation – The EPO launched an online public consultation in January 2019 for a period of seven weeks to collect feedback from the wider public and to offer the opportunity for any interested parties to submit their views. The consultation invited input on three topics relating to: the services provided by the EPO and its role as a public institution; the evolution of the patent system and future challenges; delivering high-quality products and services and social responsibility and transparency.
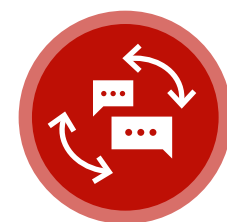
Second round of consultation – A fifty-page draft Strategic Plan was published on 18 April 2019. All staff members and all other stakeholders were invited to provide their feedback by 10 May 2019. Their input was subsequently assessed by the EPO with a view to amending the final Strategic Plan accordingly.

Goal 1

Build an engaged, knowledgeable
and collaborative organisation

Introduction

The ability of the European Patent Office to provide high-quality products and services depends primarily upon its staff. Over the last four decades, EPO employees have set new standards in quality for patent search, examination, opposition and appeals and pioneered the tools shared today by many other patent offices worldwide.

If the EPO is to remain a leading patent office, it must continue to offer an employer value proposition that is capable of attracting the very brightest minds from across the EPO's member states. It will also need to do so in an increasingly competitive environment, for both employer and employee, and with effective workforce planning that can take into account both present and future evolutions in the workforce. Currently the EPO is set to face a wave of retirements over the next ten years and young talent is increasingly mobile, which calls for a more flexible approach to employment. *(Key Initiative 1)*

The Office already has a reputation for offering remuneration that is above benchmark. However, the EPO will further enhance its capacity to attract talent by offering an organisation that better supports rewarding careers, along a number of different career pathways. The EPO will provide a workplace in which employees can unleash their full potential through professional training and enjoy a greater work-life balance.

Continuous learning to support the professional development of staff will also contribute to internal and external mobility. This will include setting up individual certification processes that attest to skill and knowledge acquisition, and new initiatives to facilitate exchanges and knowledge sharing. There will also be a secondment policy to allow staff members to gain valuable experience and extra skills in other organisations. In this way, the EPO will not only continue to attract the very best talent, it will also keep staff members highly motivated throughout their EPO career and achieve greater levels of engagement.

Goal 1

Diversity has always been one of the EPO's strengths. The 7 000 employees of the Office from across Europe are highly educated and include thousands of engineers and scientists at the cutting edge of their technological fields, and Formalities Officers. The Office also employs highly qualified staff in a broad range of professional corporate services such as law and business administration who all master multiple languages. The diversity of their geographic origin – 35 different European nationalities are currently represented among EPO staff – is a rich resource for our institution. Targeted recruitment will help to build on national diversity and ensure a representation from across our member states. Multilingualism will also be fostered through language training for newly-recruited staff. *(Key Initiative 2)*

In addition to a multinational workforce, encouraging diversity and inclusion in all its forms will create an Office in which all staff members can feel equally empowered to contribute to the organisation's targets and achieve their personal and professional goals. Specifically, training and diversity initiatives will be enhanced and seamlessly integrated into the EPO's strategy for attracting and developing talent. For example, women will be offered a mentoring programme to support greater gender diversity at a management level. Our Office will also build on initiatives that raise staff awareness of the benefits of diversity in the workplace.

Distribution of EPO staff by nationality and professional profile

Nationality 31 Dec. 2018 — Headcount

Nationality	Headcount
Albanian	2
Austrian	199
Belgian	327
British	372
Bulgarian	50
Croatian	10
Cypriot	10
Czech	29
Danish	58
Dutch	453
Estonian	7
Finnish	47
French	1245
German	1842
Greek	197
Hungarian	39
Icelandic	2
Irish	79
Italian	551
Latvian	6
Lithuanian	9
Luxembourger	49
North Macedonian	3
Maltese	2
Norwegian	1
Polish	82
Portuguese	109
Romanian	161
Serbian	9
Slovakian	22
Slovenian	19
Spanish	503
Swedish	100
Swiss	62
Turkish	40

Professional profile
31 Dec 2018

- 4 276 Examiners
- 1 639 Patent procedure support staff
- 166 Boards of Appeal (Chairpersons and members)
- 615 Others (lawyers, administrators)

23

Women in the Lead: a mentoring programme

A chance for female staff members to explore options for further development

Open

Personal and transparent exchanges

Inclusive

Male and female mentors from various managerial levels

Cross-area approach

Mentor and mentee work in different areas

Pilot
Started in March 2019

Pilot participants
26 mentors and 51 mentees

For employees, attractive careers also depend upon the possibility of advancement and discovering new roles through greater job mobility. Mobility allows employees to develop and grow in their careers, by acquiring new skills and areas of competencies within other parts of the organisation. A project-based approach will also support partial job mobility, which will simultaneously allow employees to continue developing their core careers and pursue new opportunities, while bringing their competencies to other areas of the Office.

In today's fast-paced working environment, employees have to be supported by initiatives that promote a better balance between their professional and private commitments. The EPO and its staff have already benefited from schemes such as part-time home working. To build upon this and offer an even better work-life balance, the EPO will look to assess the potential of further initiatives such as ad hoc teleworking. *(Key Initiative 3)*

Part-time home working participation

1.6.2018

Part-time home work (%)

| 27.5% Total staff | 38.6% Female | 21.9% Male |
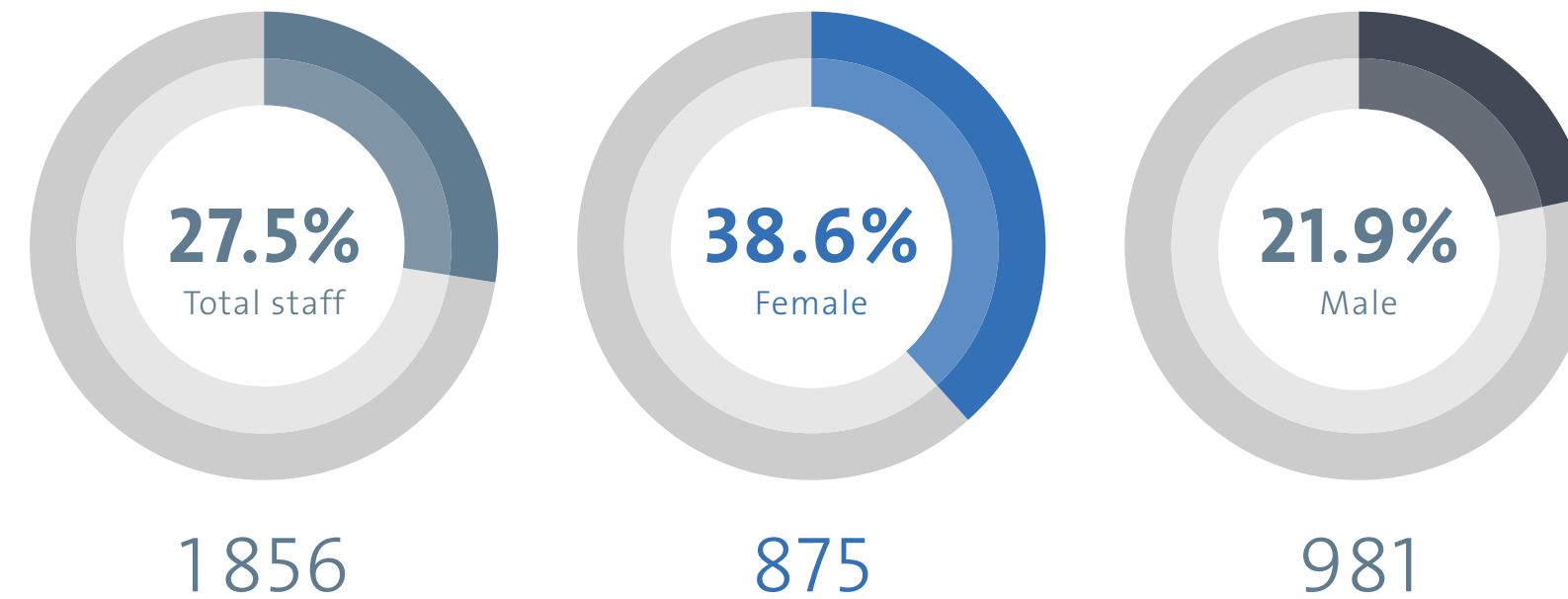
Part-time home work (#)

| 1856 | 875 | 981 |

1.6.2019

Part-time home work (%)

| 31.9% Total staff | 41.9% Female | 26.7% Male |

Part-time home work (#)

| 2 115 | 940 | 1175 |
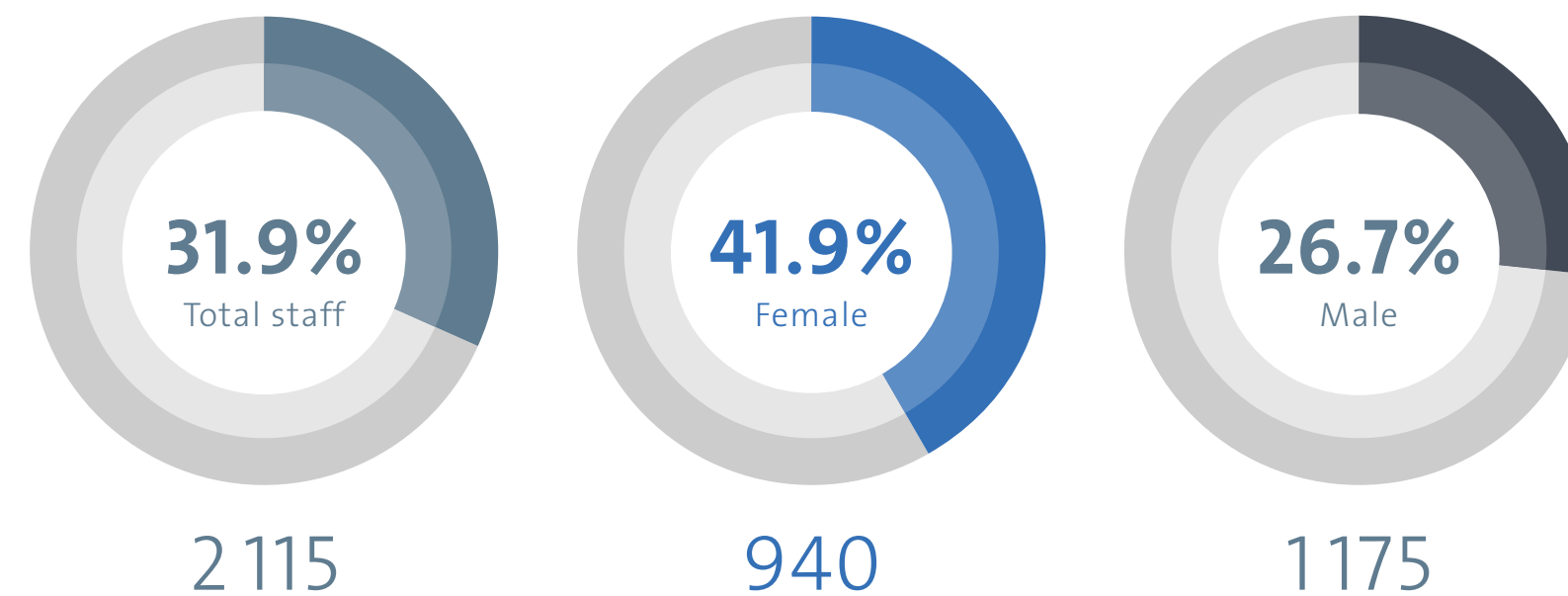
Collaborative working has been shown to increase levels of staff engagement, foster productivity and achieve higher motivation. It is particularly effective when staff are also offered open working spaces, and not just individual offices. Based on professional in-depth reviews of all its sites, the Office will launch a comprehensive set of maintenance or refurbishment projects that will provide a modern working environment, with a view to increasing flexibility, innovation and collaboration. In parallel, this work will improve the state of the EPO's buildings, and reduce their running costs and energy consumption. Future investments in renovation and maintenance will also increase the value of the Office's patrimony. *(Key Initiative 4)*

Without effective communications, modern organisations are unable to function or act in a transparent manner. Although the EPO has developed a range of internal and external communication channels, they need to be reviewed and strengthened to ensure that staff members are receiving the information they need. Effective communications will help the Office to function efficiently and its strategic goals. The Office's communications strategy will therefore be reviewed and its communications tools modernised. Greater coordination will be sought between external and internal communications by bringing them together to create synergies between the two different fields. However, the Office will also promote regular, two-way communication flows, not just to announce and explain decisions, but also to listen to its staff. Improving communication is crucial to building confidence in management decisions and to promoting a shared vision of the opportunities and challenges ahead.

The Office will promote timely external communications that chart its progress towards achieving its goals in a transparent manner, while closing the gap between the internal and external perception of the quality of its services. In turn, this will help create a shared sense of pride in its achievements and foster greater staff engagement, especially since the staff survey identified quality as a driver of staff engagement. *(Key Initiative 5)*

Social dialogue will also be paid increased attention as a specific means of communication between management and staff to achieve harmonious social relations. Forthcoming discussion topics will be identified before the beginning of each calendar year to allow for sufficient preparation, which is the cornerstone of constructive, mutual solutions for all stakeholders. Regular discussions with social partners will continue to take place, to pave the way for an effective consultation on the General Consultative Committee. The Office will also re-engage with the unions with a view to agreeing on the terms of their formal recognition. *(Key Initiative 6)*

Ultimately, the key initiatives contained in this goal aspire to foster staff engagement and motivation. With a clear sense of purpose, a deep sense of pride and ongoing professional development, staff will be both motivated and equipped to support the EPO's mission, and help transform day-to-day operations into the achievement of the EPO's strategic goals.

Goal 1

Key Initiative 1:
Attract talent

As a knowledge-based organisation, the EPO's success is largely due to the expertise of its staff members and its ability to attract the brightest talent. The EPO therefore offers a social package that is above benchmark in terms of remuneration, work-life balance and the support given to employees and their families. It also dedicates around eight million euros per year to professional development activities for its employees, which is necessary to recruit highly-professional and motivated new employees who prioritise professional development in an increasingly competitive job market.

In addition to a tough job market, the EPO will also face a challenging change in the demographics of its workforce. In the next ten years it could potentially see the departure of around 2 000 staff members, of which 1 200 are expected to be examiners. This is both a challenge and an opportunity. With effective recruitment and an intense programme of knowledge transfer, the Office could use this staff turnover to capitalise on both in-house experience and new external skills.

Harmonised office-wide workforce planning will help the EPO to anticipate the future needs of the organisation through a systematic analysis of internal factors (demographic trends, turnover, productivity and efficiency gains) and external factors (patent filing trends, changes in technology, the respective weight of technical fields). This yearly analysis will produce short and medium-term recruitment forecasts, as well as skills and competence development plans. Recruitment strategy outlines will be presented to the Administrative Council on a yearly basis.

One example of an area where effective work force planning is needed to support the EPO's strategic goals is in achieving a digital transformation. An upskilling drive for critical skills, as well as some immediate recruiting, will provide the necessary expertise in state-of-the-art technology and engineering know-how. For some job profiles there is a significant need for upskilling by means of training and coaching within the next 12 to 18 months. Nevertheless, the upskilling potential among the Office's existing staff is too limited to fill all critical roles fast. Consequently, a targeted recruiting campaign is needed to close the remaining talent gaps and offset upcoming retirement peaks.

When recruiting new employees, the EPO must primarily focus on the functional competences and skills of candidates. However, it will also strive to increase the national diversity of its staff to better reflect the diversity of its member states. The language skills required by the EPC are often perceived as a barrier to attracting talent from countries whose main language is not an official working language of the Office. As part of the new employment framework, the EPO will propose a more flexible approach to help recruits acquire the necessary language skills. More support will be given to employees to meet the criteria set out in the EPC, and the EPO will continue to support the NPOs in providing language courses.

The Pan–European SEAL programme is also a key tool for providing talented, recent graduates with valuable experience in IP and the work of a large patent organisation. In return, the EPO gains access to some of Europe's brightest graduates who can contribute fresh thinking and new skills to the organisation. The programme will therefore move to a first-job approach, enhancing its attractiveness to potential applicants, whilst promoting diversity among the participants.

Pan-European SEAL programme
Co-sponsored by the EPO and the EUIPO

Professional traineeship as an entry point to the IP world

44
partner universities

Target group

high-achieving young graduates

Duration

1 year

2019-2020

56 trainees

2015-2018

168 trainees from **25 different countries**

Once staff have been recruited, the EPO offers them attractive conditions, both in terms of benefits (high salary, career progression and development possibilities) and working conditions (work-life balance, education of children and staff-friendly facilities). These benefits should be harmonised where possible to cover all categories of employees. The childcare and education support offered to employees will be assessed in this respect.

The EPO will also begin negotiations with host countries to better facilitate the integration of its expatriate staff and reduce bureaucracy.

Key Initiative 2:
Develop talent

The main objective of the EPO's development strategy is to help its employees to reach their full potential. An effective professional development strategy is the key to increasing the capabilities, skills and competencies of EPO staff, and achieving the highest possible level of performance and adaptability to a changing environment. Professional development also has a direct impact on sustainable staff engagement and performance, particularly in the case of the EPO given its very low staff turnover and the prevalence of long-term careers. This issue was also identified in a recent staff satisfaction survey.

The Office will ensure the provision of a coherent, holistic framework for learning in all aspects of work-related development. Blended learning approaches will be deployed to offer more efficient ways of learning. Online e-learning material on both technical knowledge and language skills will also be developed to help candidates prepare themselves for selection and certification processes. The Office will ensure it offers staff coherent and holistic training, with a mix of face-to-face and e-learning, which will be reviewed to provide state-of-the-art content.

Managers can have a significant impact on the motivation and performance of their staff and, as a result, the overall performance of the Office. They will therefore be given support in developing their business understanding and communication skills to reflect the values of respect, fairness and trust. A renewed leadership programme will provide managers with training activities on best managerial practices, which will empower them to guide and inspire their teams and boost confidence in management. Special training will be given to first-time managers to ensure a smooth introduction to their new responsibilities. Additionally, women will be provided with opportunities that encourage those considering a leadership career. This will help the EPO to achieve greater gender diversity at a management level. A full set of activities ranging from conferences, peer discussions and focus groups to mentoring, networking and training will be launched. In addition, a project-driven approach to implementing the strategic plan will give staff an opportunity to gather management experience in a different setting.

Career progression will be supported by certified training that is recognised externally in the different fields of competence, such as the European Qualifying Examination and Praktika Extern programme for examiners, and Prince 2 or lean management practices for project managers. A certified European patent administration training course will also be developed for formalities officers. *(see Goal 4)* An upskilling programme will be launched in finance, procurement, HR and IT. Staff development will also be supported through secondment.

All collective and individual training measures will be grouped into a strategic development plan to ensure that staff members reach their full potential in line with the strategic goals of the EPO. Development plans will gradually increase the capabilities of staff under the new employment framework, by defining a policy to also enhance staff competencies and performance over the first ten years of their employment (five year contract + five year contract), with tailored training and development. Both contract renewal and a permanent employment offer will be subject to the application of transparent and objective criteria, such as individual performance, operational needs and long-term financial sustainability.

In 2015 the EPO implemented a merit-based career system, based on performance and demonstrated competencies. Given its importance for both the Office and its staff, the system will be assessed to identify room for improvement and will be fine-tuned if necessary. Measures will be introduced to increase fairness and transparency. To this end, more information, including detailed statistics, will be made public annually, while respecting data protection regulations. The EPO will communicate regularly and transparently on objective setting, performance cycles and rewards. It will aim to ensure that rewards are available for all types of contributions, and that there are fair opportunities for all staff. Office-wide policies and appropriate training will ensure that managerial practices are fair, transparent and aligned with the EPO's values. While encouraging individual performance, the system should also reward collective success. On top of the existing reward system, the development of non-financial rewards will be discussed and implemented.

At the same time, staff members have a right to constructive feedback to help them meet their goals and fulfil their own ambitions. Managers will therefore be trained and encouraged to actively seek direct contact with their staff, give regular feedback, and pay special attention to their development needs and support them in reaching their full potential. The performance management system will be regularly reviewed and updated to link the performance cycle and development measures more closely to the EPO's objectives and initiatives, the status of its core activities and the challenges it faces.

Goal 1

Key Initiative 3:
Foster professional mobility and work-life balance

As the Office looks to become a more agile organisation, it will foster internal mobility to ensure that the best talent can be deployed quickly in the most effective roles, to respond to the changing patent landscape.

The EPO will aim to implement a programme that identifies and develops potential talent for diverse careers. Internal mobility will also be supported by more clearly-defined career roles and a mentoring programme and further improved by a call-for-talent initiative, in which a staff member can dedicate up to 20% of their working time to a different activity or to a specific project outside their normal duties.

External mobility and exchanges with external national or international institutions will also be reinforced. The legal framework for secondments will be reviewed to foster career-long mobility, increase flexibility and cut red tape. Conversely, experts from NPOs, European and international organisations will be encouraged to share their knowledge and expertise by temporarily joining the EPO through a seconded expert programme to be implemented on the basis of best practices.

Additionally, more possibilities will be offered to staff to help them balance the demands of their professional and private lives. The Office has already experienced success in offering a part-time home working scheme. On the basis of a current pilot, the Office will assess the potential for implementing an ad hoc teleworking scheme. The scheme presents a possible win-win for both employees and the Office: employees gain additional flexibility from being able to work for a short period of time from any member state, helping them to balance the various professional and private demands they may face. The Office stands to benefit from more highly-engaged and better-motivated employees who can respond flexibly to needs and who are, in turn, better able to deliver their performance objectives. Unpaid leave will also be reviewed to allow further flexibility.

Key Initiative 4:
Further develop a modern, sustainable and healthy working environment

The EPO has a duty to provide its staff with a safe and secure environment. In recent years the Office has updated its security measures in line with best practices and following comprehensive security assessments.

It has also undertaken renovation and extensive maintenance work on all its premises to ensure that they are fit for purpose. New standards in the Office's working environment have been achieved at the New Main building in The Hague, where collaborative work spaces and state-of-the-art facilities, as well as environmental innovations, are delivering benefits for both staff and the environment. New Main received the 2019 award for "Best Tall Office Building" from the Council on Tall Buildings and Urban Habitat for its contributions to the advancement of tall buildings and the urban environment, confirming New Main's desirability as a cutting-edge workplace for EPO staff.

The majority of the EPO's office buildings, however, are 30 to 45 years old. The office environment in the older EPO buildings is outdated and typical of an era when workplaces were dominated by single offices arranged in long corridors. This layout no longer reflects the benchmarks in transparency, collaboration and flexibility already adopted by other large organisations worldwide. The office premises also suffer from high running and energy costs. Maintaining their value – currently insured for around 1.25 billion euros, but much higher in real market terms – requires major investments in regular maintenance, and complete refurbishment in some cases.

The EPO will therefore propose a comprehensive programme of maintenance, refurbishment and rebuilding projects to its governing bodies. The Office plans to provide all staff with the same inspiring environment offered by its New Main building in The Hague.

The goal is to provide all staff with a modern working environment that meets state-of-the-art sustainability, and health and safety standards and to encourage new, more flexible ways of working. The Office considers this programme of strategic importance due to the impact that the workplace can have on staff performance and well-being. Workplace design also shapes the way an organisation functions, collaborates and communicates. A vibrant and energetic environment boosts employee engagement, fosters a sense of belonging and contributes to attracting talent.

A modular solution will allow the Office to accommodate open, collaborative and private office spaces. This will ensure that the most suitable type of workplace can be chosen to suit the range of tasks carried out by the staff of the EPO and be easily adapted to emerging trends and future developments in the Office environment. The modular solution will ensure workplaces can be converted fast, with individual offices merging into larger meeting areas on demand.

Opting for this flexible solution, will foster close co-operation across all areas of the EPO. Team working and multidirectional knowledge sharing will be championed and supported. Open and collaborative office space will bring transparency, agility and adaptability and facilitate knowledge transfer and collaborative ways of working, which, in turn, will improve the quality of products and services. The layout will also feature a range of customised spaces for high-concentration tasks, project work, meetings and informal exchanges. Videoconferencing facilities will drive efficient communication, while cutting travel costs and the associated carbon emissions. *(see Goal 5)*

In parallel, the building strategy will decrease the significant level of wear and tear and reduce running costs and energy consumption, which will partly offset investments over time. Overall, the work carried out will increase the value of the EPO's patrimony situated in prime locations in major European cities.

EPO buildings will continue to comply with the latest national and local safety regulations. If buildings require work to satisfy new, higher standards, this will be included in the overall building programme. Sports facilities, canteens and other amenities will be upgraded to echo the open, collaborative work environment and to promote health, well-being and social interaction. The Office will offer a wide range of facilities to help staff unwind and keep their physical and mental health at the highest level.

All EPO buildings, whether new, renovated or refurbished, will meet the highest achievable sustainability targets to minimise their environmental impact. This means adopting a holistic approach to reducing energy consumption and operating costs and the output of carbon emissions and waste.

Key Initiative 5:
Improve communication

For an organisation like the EPO, communication is crucial to its success. Internally, the Office has to be able to communicate effectively with nearly 7 000 staff located at five sites in four different countries, and spread throughout multiple departments. As well as providing staff with a whole range of information on a variety of subjects, effective communications also play a strategic role in helping to achieve the goals of the organisation.

Clear and timely communications help explain management decisions to staff and build confidence in those decisions. Similarly, effective communication tools and channels allow managers to listen to their staff, which is essential for fostering staff engagement.

The internal communication strategy will be reviewed and made more effective. Above all, it will aim to ensure that clear and accurate information reaches the target audience in a timely manner. The Office will promote regular communication flows in a way that ensures a culture of collaboration and effective feedback. Staff will be fully informed and involved at every level, supported by timely and clear internal communications to explain the reasons for important changes, the Office's overall goals and results. Specifically, direct exchanges with the top management will be regularly organised, and mechanisms will be set up to collect staff input. These will include focus groups, meetings, surveys, and conferences on topics of general interest. Staff will be consulted on specific subjects such as improvements to existing IT tools. Staff engagement will be regularly monitored in surveys, followed by specific actions that will form part of the EPO's continuous improvement measures.

To increase communications related to governance, the Office will gradually develop the reporting activities on its internal working and advisory groups, committees, and governing bodies. Direct streaming will be considered for issues of immediate concern to staff. The intranet will be reviewed to ensure it is fit for purpose in terms of access to content, structure and tools.

Peer-to-peer collaborative networks such as Continuous Knowledge Transfer motivate staff to collaborate and share their knowledge to collectively become more effective. Such networks recognise that staff knowledge constitutes a valuable long-term resource. The EPO will continue to support such networks with measures like training and dedicated spaces.

As well as creating effective information flows within the EPO, the Office also has a responsibility to communicate externally. As a public institution it must communicate effectively and regularly to all external stakeholders on its work and its progress in achieving strategic goals. External communications are therefore also a prerequisite for providing transparency. At the same time, the Office must be in a position to communicate quickly with its users on operational matters, providing the latest news and updates.

The **epo.org** website will be developed to become a more unified and coherent online presence for the Office. A new transparency portal on the website will provide access to easily searchable and accessible public documents, such as the EPO's social and environmental reports. The Office also intends to further enhance the external perception of the EPO as a high-quality international public service and product provider, which, in turn, will enhance its staff's sense of pride, purpose and sustainable engagement.

Internal and external communications in the Office will be merged in recognition of the close interdependence between these two forms of communication and how they can impact each other. The merger will make communications more efficient, as both areas will use the same primary sources of information and build upon work already done in one field, but adapt it to their different respective target audiences. With internal and external communications working together, the timing of communications will be better co-ordinated to ensure that the correct information is provided at the right time to the right audience.

Existing and new technologies will help facilitate constructive and free exchanges throughout the Office to foster openness, innovation and constructive criticism. The Office's capacity to create engaging content and to frame it in the latest user-friendly and attractive formats will be reviewed.

Effective communications will also support staff engagement. Communication will focus on fostering a better understanding of how individual and team efforts make a difference, and how those combined efforts directly contribute to the EPO's success. Furthermore, the Office's ability to convey how individual contributions and teamwork impact its performance as an international organisation and, more broadly, support innovation and creativity, will be a key factor to its success. The Office will provide communications on the implementation of the Strategic Plan and celebrate the collective achievements of staff. The European Inventor Award will be further promoted as a flagship celebration of excellence for EPO staff, as well as for the outstanding inventors nominated each year from across the world.

Key Initiative 6: Foster social dialogue

Social dialogue in all its forms – direct dialogue with staff, managerial communication and dialogue through unions and staff representatives – is a specific type of communication on which the EPO depends to facilitate constructive exchanges with staff and gain their support and commitment.

The aim of such a dialogue is to reach consensus on measures that affect both employees and the Office as a whole. Constructive social relations with all internal stakeholders are sought by engaging in a meaningful social dialogue based on trust and respect, in which all issues can be discussed openly. A meaningful social dialogue also depends on the conviction that internal discussion and participation is a more efficient way of addressing employment relationships than conflict. It must be supported by a proactive communication strategy focused on individual and collective achievements, values and role models embodying these values. The EPO will encourage social dialogue in all of its forms, including negotiation, consultation and the exchange of information between the management, the staff representatives and the unions.

Staff members are represented at the EPO by staff representatives directly elected at local and central levels. In order to facilitate collective bargaining and build consensus, the framework in which the EPO management and these staff representatives interact will be reviewed to ensure efficiency and avoid the duplication of efforts.

The topics subject to discussion will be identified before the start of each calendar year to allow for sufficient preparation and increase the likelihood of achieving constructive outcomes that are acceptable to all stakeholders. Regular discussions with social partners will take place, paving the way for an effective consultation on the General Consultative Committee. The respective roles in social dialogue of consultation, formal and informal discussions will be addressed in working groups.

The regulations on staff representation activities and the means allocated to staff representation will be reviewed before the next elections in June 2020. The time, resources and communication channels available to staff representatives will be subject to discussions between the management and staff representatives. Identification of a training catalogue, development activities and a training budget will also be discussed with social partners.

The unions enjoy a significant level of recognition at the Office, which covers freedom of association, the right to call strikes, the right to call for a general assembly that can also be organised on Office premises, and access to communication channels such as in the intranet, notice-boards and leaflet distribution. To formalise the framework of relations between the Office and the unions, a memorandum of understanding will be discussed based on national and international best practices. Among other things, the right to strike will be revisited as part of the discussion.

Finally, the Office aims to ensure that internal means of redress are a last resort, to avoid a proliferation of proceedings on the same topic, to encourage the withdrawal of appeals which have become irrelevant and to promote respect for the scope of the internal appeals system. The effectiveness of internal mechanisms of redress is an important condition for the Office's immunity from jurisdiction and its operational independence. It is a shared responsibility of the Office, its staff and their representatives to ensure that responsible use is made of the internal system of justice. Whilst acknowledging the right to file an appeal, the EPO will therefore continue to encourage discussions at all stages of the appeals procedure i.e. when the decision is communicated; at the compulsory pre-litigation step of management review; at the appeal stage; and even after a complaint has been filed with the Administrative Tribunal of the ILO.

Goal 2

Simplify and modernise
EPO IT systems

Introduction

The Office has been implementing an IT roadmap (ITR) since 2011 as part of a comprehensive modernisation strategy. It was an ambitious vision, oriented towards greater efficiency and quality, as well as increasing innovation, security and flexibility.

However, some important challenges remain after the official completion of the ITR. The IT landscape at the EPO comprises several hundred applications and about 40 different storage databases; the end-to-end electronic patent grant workflow is yet to be achieved and the eDossier program – once envisaged as a cornerstone of a digital patent granting process – has been terminated. Moreover, the IT landscape and complexity of the IT services required by the EPO has evolved significantly. A comprehensive patent application search, for example, now draws on 1.3 billion technical records in 179 databases, leading to about 600 million documents appearing in search results on a monthly basis.

An IT audit carried out between September 2018 and January 2019 also identified a series of further areas that require considerable improvements. Nearly 90% of the Office's key applications are not future-ready and the Office has an overly-complex application landscape. The IT audit also looked into the current software development methodology and found limits to the current product-centric view, and insufficient, up-front quality assurance. No consistent method is used to define business requirements, there is limited accountability of project teams for product success, and quality standards are not applied consistently across the process in areas like security, performance and software quality. The initial list of 34 projects in the ITR was scattered into 114 projects over time, and these projects often lacked overarching goals.

Audit on automation

Source: final report, January 2019
IT audit – the six key areas of improvement

Pillar 1:
Review IT roadmap and status

Pillar 2:
General IT org., structure and governance

Pillar 3:
Architecture and technology review

Pillar 4:
Staff motivation and knowledge retention

SWM and upskilling

Cultural transformation

Target operating model

PGP customer journey design

Target IT architecture

Transformation set-up and governance
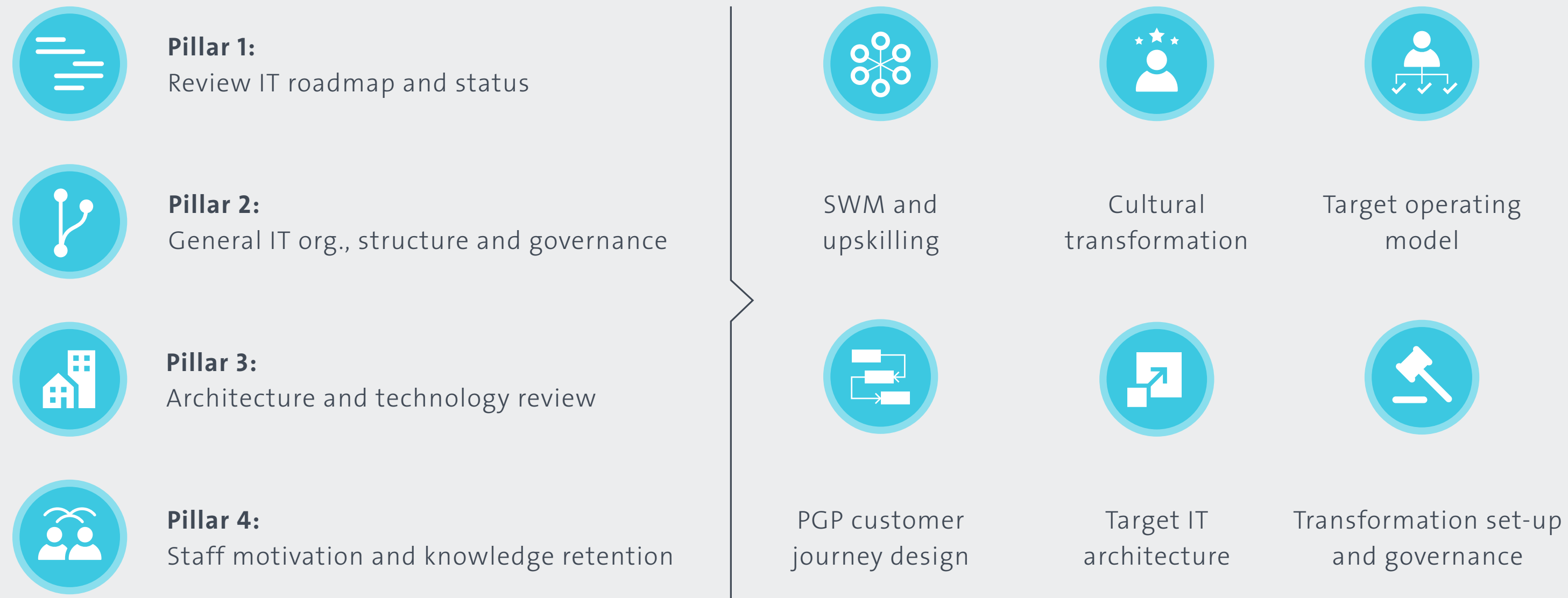
PGP = patent grant process | SWM = strategic workforce management

Staff members have also been impacted. The EPO's current applications show reasonable availability, but improvement is needed given that stability issues account for more than 13 hours/month of lost productivity and cause 75 hours/month of minor disruptions. Cloud readiness and the scalability of our applications are not a given in our legacy systems and the cost of maintaining the old systems is becoming prohibitive. This calls for measures like the decommissioning of the mainframe, and potential adoption of cloud technologies where applicable.

The Office therefore needs to invest in a digital transformation that will support its staff, its users and other stakeholders. For the staff involved in the core business of the EPO, a single tool will be implemented to support an end-to-end electronic patent granting process. The new tool will occupy a central position in a modern digital environment and offer an integrated approach for the Office across the end-to-end-process from patent filing to appeals and post-grant procedures. *(Key Initiative 1)*

Goal 2

The timeframe for implementing such a reliable and highly performant single tool is expected to extend beyond the horizon of the current Strategic Plan. However, the results of the recent IT audit have clearly highlighted the need for immediate improvements to support the Office in its operations to ensure higher quality and productivity, and to increase staff and user satisfaction. The EPO will therefore set about implementing a series of improvements to the existing tools at a rate that reflects their importance within the long-term vision for the IT tool landscape, and driven by the expected benefits and costs of investing in those enhancements. *(Key Initiative 2)*

The *epo.org* website is another area that requires immediate attention. As it is expected that more and more functionalities will be added to the EPO's web presence, a unified online presence that responds to the needs of users and mitigates the ongoing risk of fragmentation will be essential. A new electronic filing tool based on standards (XML) will remove the need to support scanned PDF images with expensive optical character recognition (OCR) processing. A new user area will enable direct interactions in a consistent, reliable and safe manner and provide a platform for collaborative work. The overall portfolio of files of any applicant or attorney will be made identifiable. *(Key Initiative 3)*

Total number of visitors to the EPO website in 2018

7 933 204
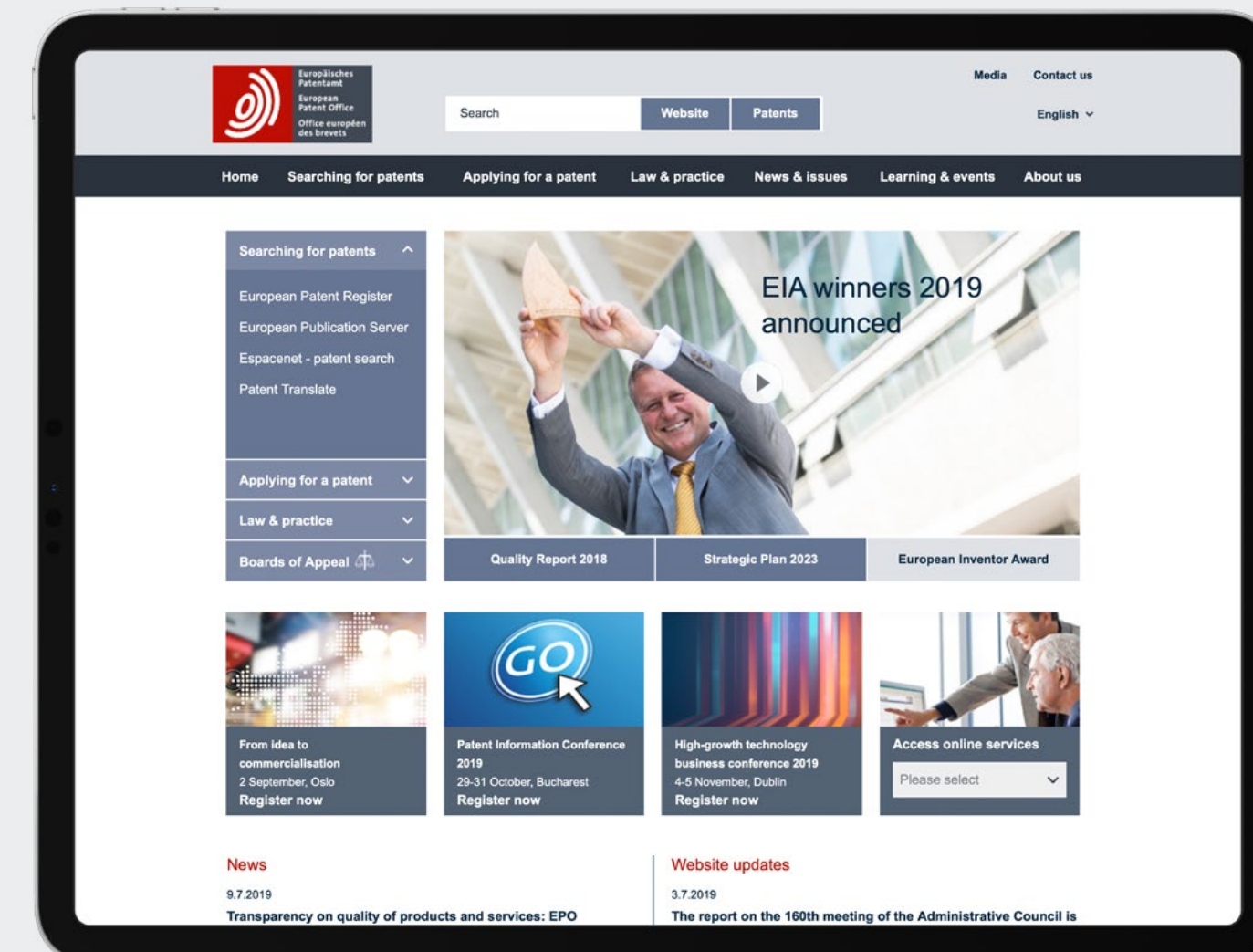
In addition to benefits within the Office and improved services for users, the EPO's enhanced digital environment will be developed to allow for greater integration with other stakeholders. A modular and scalable design will create opportunities for the EPO and its member states to assess possibilities for converged front and back-office tools, which could deliver greater search and examination functionality. An analysis will be carried out during the period of the Strategic Plan to assess the potential for pilot programmes in this area. *(Key Initiative 4)*

As well as gains in the patent granting process and co-operation with other stakeholders, a range of corporate services can be improved with greater digital support. Digitalised tools can help to reduce the administrative workload and to bring greater transparency to processes in corporate areas like finance, HR and facility management. In addition, corporate services and their users stand to benefit from a more responsive service and greater traceability of requests. The services would also be enhanced by better document and content management, including a corporate document management policy. Furthermore, IT will also help the EPO's staff to become a fully mobile workforce, able to work from any location at any time. *(Key Initiative 5)*

While EPO staff members will be users of the EPO's new digital processes and tools, they are also well placed to contribute to new, innovative IT solutions. To tap into their knowledge and creative potential, the Office will set up an application marketplace in which they can upload and discover apps that meet their needs. *(Key Initiative 6)*

An effective vendor management and governance approach will also empower business and IT teams to mitigate risks and trace decisions, on the basis of clearly defined roles and responsibilities, and to define a retained organisation to draw clear lines between what can be outsourced and what should remain in house. *(Key Initiative 7)*

Underpinning the entire digital transformation at the EPO will be the technical infrastructure that is capable of delivering the necessary tools and processes. This infrastructure will provide the level of agility and reliability needed to develop a new end-to-end tool for the patent granting process, to improve existing tools and for the IT tools needed to support corporate services, among others. Furthermore, that infrastructure, as well as all IT tools and services, must be secure. As the guardian of sensitive data, the EPO will strengthen IT security to ensure the integrity of the information it holds. Its cybersecurity measures will be subject to formal certification and it will adopt a structured risk management approach. *(Key Initiative 8)*

Goal 2

Key Initiative 1:
Implement a patent tool to support an end-to-end electronic patent granting process through a modular and scalable approach

The Office will construct a single tool to support the complete end-to-end electronic patent grant process, forming the central pillar of its new digital organisation. Based on the radical simplification of current practices *(see Goal 3, Key Initiative 5)* and infrastructure landscape, this single tool will facilitate business process changes and the rapid introduction of new business functionality, resulting in a more agile and flexible organisation.

This single tool will support electronic communications and interactions between the Office and its users. Firstly, the electronic filing of patent applications will be implemented and fine-tuned based on user feedback. The single tool will allow for the introduction of standard digital formats (XML) and provide the means to manage patent portfolios entirely online, as the back office is gradually rebuilt based on a digital file and electronic workflow. It will cover the incorporation of quality measurements, a key element of our operations, and will enable the further integration of business intelligence and data analytics in the patent granting process.

A single, consistent and integrated approach across the end-to-end process from filing to appeals and post-grant will simplify and accelerate the introduction of new technologies throughout the organisation. It will provide a clear focus for the efforts to be made in terms of user experience and a harmonised approach across activities (search, examination, opposition, appeal), which will be especially relevant once the EPO reaches a steady-state workload situation. This harmonised approach will be made possible thanks to a single viewer for reading and annotating applications and prior-art documents. This viewer will be supported by a patent workbench for managing the work and priorities of examiners, formalities officers and line managers, together with operational and strategic management reporting. This end-to-end digital process will also contribute to the reduction of paper usage within the Office, which amounted to more than 120 million sheets of paper in 2018.

In the domain of prior-art searching, the EPO will consider creating a knowledge tool that will take the form of a virtual assistant and use artificial intelligence techniques. This tool will capture and extract value from applications and prior-art data and information (the management of information is covered under *Key Initiative 2* below), but also from the knowledge used by examiners while patent granting, by learning from them.

By applying these same techniques to classification and the formal checks of incoming applications and correspondence, the overall aim is to allow formalities officers and examiners to focus on substantive content and tasks, rather than on non-value-adding activities. Office examiners and formalities officers will use a first version of the tool, which will support them in performing a limited number of tasks. In the more-complex future, the level of support from the assistant will grow to cover more complex tasks.

Goal 2

Key Initiative 2: Improve existing EPO tools and manage high-quality prior-art libraries

The full implementation of the end-to-end electronic patent tool *(Key Initiative 1)* **is expected to extend beyond the timescale of this Strategic Plan.**

During this time, the Office will continue to improve its core tools to better support the work of examiners and formalities officers, integrating the options offered by new technologies. This Key Initiative groups a series of improvements that will contribute to higher quality, productivity and staff and user satisfaction. The non-exhaustive list below gives examples of the Office's tools that need upgrades.

The eDrex system will be improved as patent documents gradually migrate from image to text-based formats, making it possible to reuse standard word processing possibilities. The usability of eDrex will continue to be enhanced to increase user satisfaction.

Trimaran will be enhanced to avoid the double entry of data across several systems, and to partly revamp the current functionality, which does not meet today's needs.

On the basis of the current usage of the Ansera toolset, we will continue to enhance it with non-patent literature, a better viewer, support for standards databases and the option of plugging in other tools or data sources to search in technical fields with very specific needs.

More generally, existing tools will be improved at a pace that reflects their usefulness within the long-term vision for the IT tool landscape, and that is driven by the expected benefits and costs of investing in such enhancements. We will move away from the current situation that features over 400 localised, specific ideas for change that do not address the overall improvement of the end-to-end process. A leaner process for dealing with improvement ideas, user-driven and bundled in packages, will be adopted.

In the future the EPO intends to deploy machine learning in all aspects of its core business, and a key area in which improved IT tools can deliver greater benefits is in the field of prior art. *(see also Goal 3, Key Initiative 1)* This raises data quality requirements substantially, as results from neural net processing depend on the quality of input. In the future, data utilisation will be focused on enabling and fostering machine learning and artificial intelligence applications for prior art, dossier data and workflow metrics. The Office will also explore machine learning applications for validating data, correcting it whenever necessary and further enriching it through linking, grouping and annotating.

Key initiative 3:
Develop new online user engagement

The *epo.org* website will be developed as the core and unified online presence for the Office, addressing the needs of users with a greater focus on the non-specialist audience.

A new web governance system will be set up to create an excellent customer experience and boost efficiency in all areas of the EPO's web presence, by providing consistency and quality across all external online channels and services. This web governance system will mitigate the ongoing risk of fragmentation, as it is expected that more and more functionality will be added to the EPO web presence as digitisation advances.

The current online user tools will be updated with a new electronic filing tool, with more extensive coverage of electronic formats, based on standards (XML), removing the need to support scanned PDF images with expensive optical character recognition (OCR) processing, and providing communications throughout the patent grant procedure.

A new user area, built on the basis of standard, flexible and secure solutions, will enable direct, around-the-clock interactions in a consistent, reliable and secure manner. Progressive online transactions in this area will significantly simplify procedures. This user area will also provide a platform for collaboration with examiners on a given file, as well as access to customer support and a consolidated online payment platform.

It will be possible to view the overall portfolio of files of any applicant or attorney, including the status of each item within the portfolio and the most probable next action, as well as the expected timeline until grant or refusal. In this context, the issue of the identity of companies and their affiliates worldwide will become more and more relevant. Improved search functionality will also be made available, with the final launch of the beta version of Espacenet that was released in Q4 2018.

Customer relationship management (CRM) will be strongly enhanced, in the context of the EPO's key user management programme, using state-of-the-art CRM tools available as standard market offerings.

Key Initiative 4:
Implement common tools together with other IP offices

The Office will assess the viability of building and implementing common tools together with other IP offices to contribute to the European Patent Network (EPN).

Together with members of the EPN, the Office will assess potential ways of co-operating on search, front- and back-office tools to offer support in areas of common interest such as the patent granting process, the use of the CPC, renewal fees for European patents validated and maintained at a national level and the workings of the EPO's Administrative Council (new MICADO). MICADO will also be modernised and could be extended to become a portal for co-operation with member states.

A cornerstone of this effort will be the assessment of options for converged front- and back-office tools to support the patent grant process and for implementing a minimal viable product. These systems, if viable, will ensure scalability, sustainability and modularity by being jointly designed with those IPOs within the wider network that wish to participate. They could seamlessly integrate with a modernised EPOQUE Net built on the EPO's new search engine (Ansera), delivering search functionality equivalent to that available to EPO examiners. In the long term, this will make it possible to decommission the old search engine built on dated technology, and to concentrate efforts on maintaining a single generation of widely used tools. Ansera will be adapted so that it can operate on different prior-art data sources, meaning that examiners from any office can use the same tool to search in their appropriate data sets.

These tools, if viable, will be designed to deliver benefits in cost, quality and timeliness across the lifecycle of patents, and to form an integral part of a wider ecosystem of tools across the IP business. The benefit-driven, joint development of this ecosystem together with international and EU organisations, major user representatives and national IPOs will be supported by an ongoing operational commitment to promote integration with national IT systems.

A complete analysis of the whole patent grant process will be carried out, and tools that can be jointly built will be rolled out in pilot schemes. Based on these pilots, tools will be implemented with a second wave of offices. NPOs will be responsible for the ownership and operation of their specific tools, while the Office will provide them with the support that they need.

Goal 2

Key Initiative 5:
Continue to digitalise and modernise Corporate Services, including HR, Finance, General Administration and document management

Key corporate services spanning the whole Office will be digitalised and best practice processes will be implemented in so far as standard market solutions delivered through "software-as-a-service" models meet the Office's needs. As far as possible, synergies in the solutions will be sought to simplify and support the digital workflows between organisational entities.

Both in financial processes and HR services, self-service will be offered where possible, leading to a lower administrative burden, more transparent administrative processes, quicker response times and greater traceability of requests for users. To support a steady-state regime in the Office's stock, enhanced human capital management solutions will be provided to manage workforce planning, talent management, easier onboarding of employees, etc. Tools will also promote financial awareness, provide transparency and enable accountability and progressive empowerment in the management of the funds by organisational units and in the structuring of procurement activities.

In parallel, current business intelligence approaches will be complemented by big data architectures and techniques that leverage data analytics and deliver self-service solutions. Beyond classic reporting, big data will widen access to business analytics and business intelligence. In addition, a consistent, coherent solution for document and content management will be made available, enabling the business units to handle their administrative documentation according to a corporate document management policy. Automatic translation of structured content will also be possible, improving the consistency and quality of our administrative translations.

The Office will explore the feasibility of using state-of-the-art telepresence, collaboration and secure online document-sharing tools to allow remote attendance at oral hearings, as well as real-time interaction between examiners, formalities officers and applicants, avoiding lengthy exchanges of formal letters.

The user workspace will have to evolve to support a fully mobile workforce that can work seamlessly from anywhere, facilitating long-term or ad-hoc teleworking, and providing improved tools to foster teamwork and collaboration. The user workspace will have to become an "always updated" user-friendly environment, as has become the norm in the field of mobile devices, leveraging the extra services offered by modern office automation suites.

This Key Initiative will support Goal 1 by delivering a flexible and digitalised working environment and ensuring that the Office meets the expectations of staff and potential candidates. It will also enhance the EPO's image as a modern, attractive employer.

Key Initiative 6:
Build an innovation ecosystem

The ability to work from anywhere can also help staff in balancing their core tasks with additional projects. For almost two decades, examiners have been developing their own tools with an open-source and collaborative approach. To harness this untapped potential, we will embark on building an innovation ecosystem that allows EPO staff and NPOs to provide innovative solutions for all stages of the patent grant customer journey.

This ecosystem will be based on a robust set of application programming interfaces (APIs) that provide access to EPO services, following best industry practices. A non-hierarchical app marketplace will be created in which EPO employees can upload and discover apps that meet their needs. The Office will also introduce a set of incentives and rewards for innovators who create useful solutions. First-class training initiatives in new technologies will support contributors in this innovation environment. Once the first apps have been created and shared, access to the APIs can gradually be granted to more contributors, while eventually expanding the scope of innovation to all stages of the patent granting process.

Goal 2

Key Initiative 7:
Build an IT vendor management function and revise the IT sourcing policy

Following a review of the definition of core IT capabilities and the retained IT organisation, decisions will be made on where to invest in in-house skills *(see Goal 1)* critical to the Office, and where to outsource tasks to subcontractors. Outsourcing will only be an option for well-defined, non-core tasks.

The rules of engagement with suppliers will be reviewed in order to secure the organisation's control over their performance, quality and effectiveness. This will be supported by the development of contract and vendor management as a core capability of the organisation. It will also include the setting-up of processes to monitor and improve service-provider performance and ensure value delivery.

Goal 2

Key Initiative 8:
Increase the agility, reliability and security of EPO systems

This Key Initiative will ensure the reliability, sustainability and agility of our IT operations, which is a prerequisite for achieving all of the other Key Initiatives under Goal 2 and their potential benefits.

It constitutes the basis for improving the availability of IT systems. This Key Initiative will deliver the infrastructure in terms of data centres, hardware and architectures that will make it possible to implement a fully digital, end-to-end patent granting process. It will simultaneously enable the Office to introduce enhancements to existing tools, develop common tools with NPOs, continue to invest in corporate solutions and improve vendor management, IT security and digital workplace capabilities.

A state-of-the-art tier-IV data centre will support the day-to-day operations of the Office, so that high availability is ensured on a 24/7 basis when it comes to customer-facing systems. The mainframe will be decommissioned, and systems will run on open platforms. This will provide the basis for a highly effective business continuity and crisis management strategy, which will ensure the long-term sustainability of business operations.

A modernisation of the hardware infrastructure will take place, to provide the necessary computing power for the EPO's resource-intensive IT systems, and thereby ensure that the user experience is optimal and contributes to the efficiency of the Office.

Cloud-native architectures based on microservices and an API-first approach will be adopted. Such cloud-native architectures will support the ongoing implementation of our cloud strategy, which will evolve over time from cautious initial adoption to a more strategic approach, as confidence grows in the security models and maturity of public cloud usage.
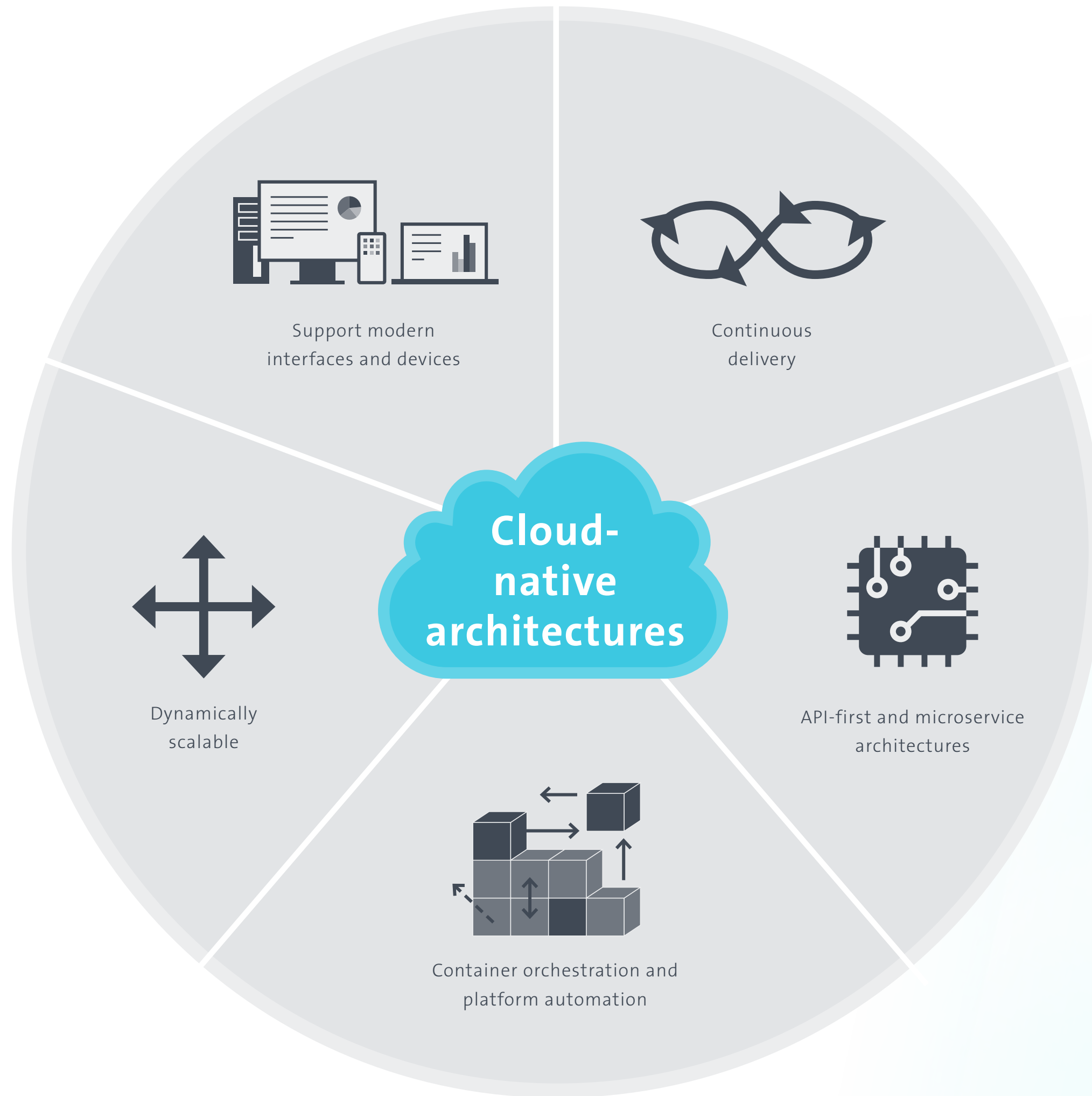
The digital transformation will also implement both a "green IT" and "green via IT" policy, strengthening the Office's sense of corporate social and environmental responsibility. *(see Goal 5)*

An important element of the EPO's future IT landscape will be to increase information security. It will include applying standard patterns to all layers, built-in security monitoring interfaces and advanced security prevention systems. State-of-the-art identity and access management will ensure that resources are made available on a "need-to-know" basis. This more secure IT landscape will enable staff and stakeholders to interact flexibly but safely, leading to increased employee comfort and satisfaction.

Cyberintelligence and cyberdefence techniques will be utilised to anticipate and detect attacks and to support rapid decision-making concerning security in our specific environment. IT security will be underpinned by a formal ISO 27001 certification and a structured risk-management approach.

Support modern interfaces and devices

Continuous delivery

Cloud-native architectures

Dynamically scalable

API-first and microservice architectures

Container orchestration and platform automation

Goal 3

Deliver high-quality products and services efficiently

Introduction

The EPO is well known for delivering high-quality products and services and is consistently ranked as one of the world's leading patent offices in this respect.

Its reputation for legally robust patents is based upon the Office's ability to deliver the most complete searches, an examination procedure that is predictable, consistent and provides the highest presumption of validity, as well as an opposition and appeals procedure that is transparent and fair.

At its core, a quality search and examination process relies upon unhindered access to prior art to determine the state-of-the-art knowledge at the time of filing. In recent years, the worldwide volume of patent and non-patent literature has grown, particularly in Asia, and inventions have become increasingly complex. The EPO faces the growing challenge of providing its examiners with accurate, accessible and complete prior art, and specifically of overcoming the language barriers that are presented by the rise in Asian prior art. The Office will respond to this growing volume by continuously mastering prior art, ensuring ready access to up-to-date technical documentation and implementing translation tools to overcome any potential language barriers. *(Key Initiative 1)*

EPO production (searches, examinations, oppositions)

	400 000						430 418	417 000 (plan)
			364 739	395 910	414 269			
	315 578	320 080						
200 000								
	2013	2014	2015	2016	2017	2018	2019	

◻ Actual   ◼ Operational plan (compliance level)
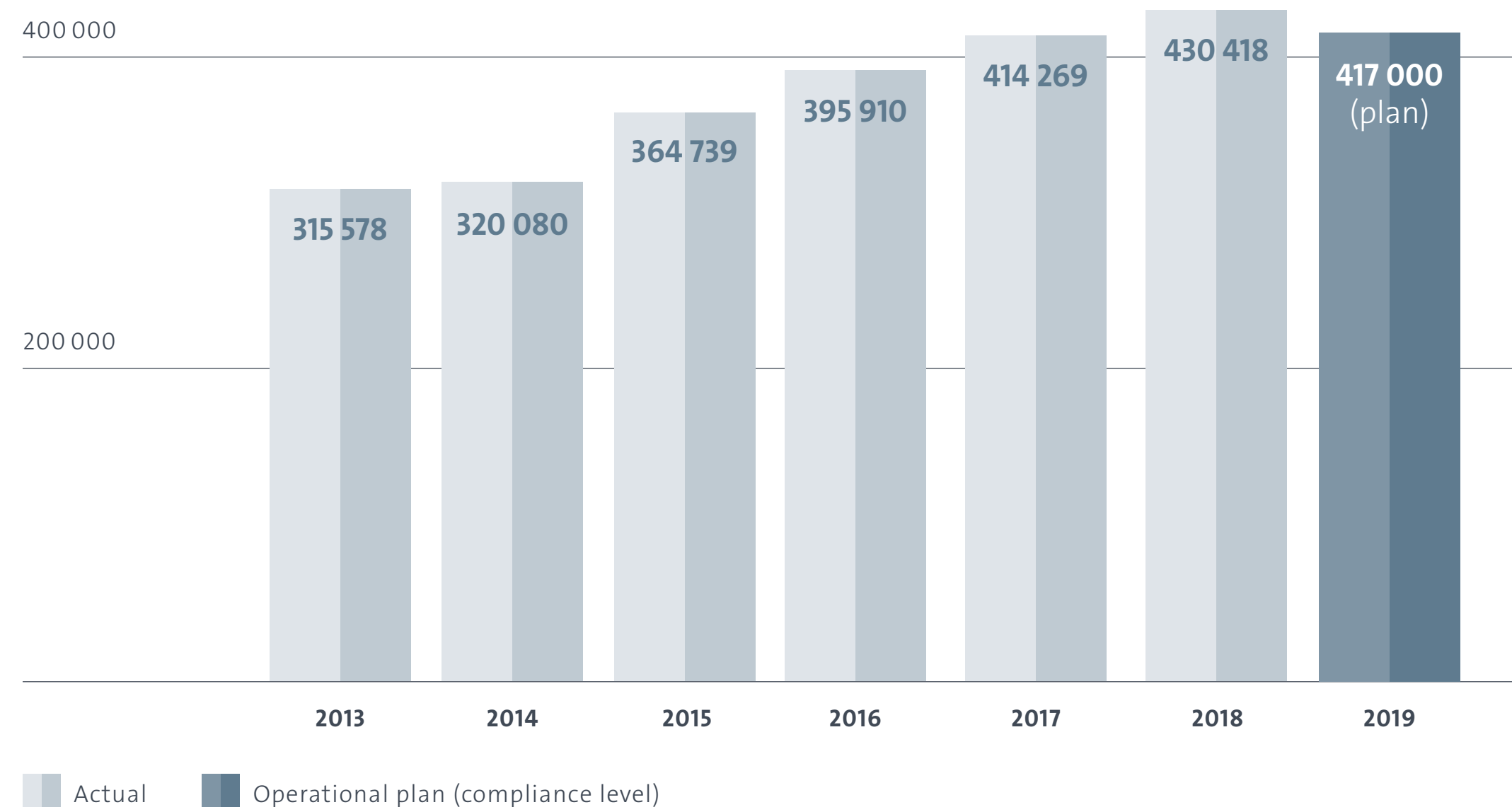
Production is defined as the total number of products delivered by EPO examiners (searches completed, examination communications despatched, opposition decisions communicated).

Goal 3

Worldwide patent applications
Growth from leading Asian countries

P.R. China - Japan - R. Korea   Other countries   **%** Share of P.R. China - Japan - R. Korea
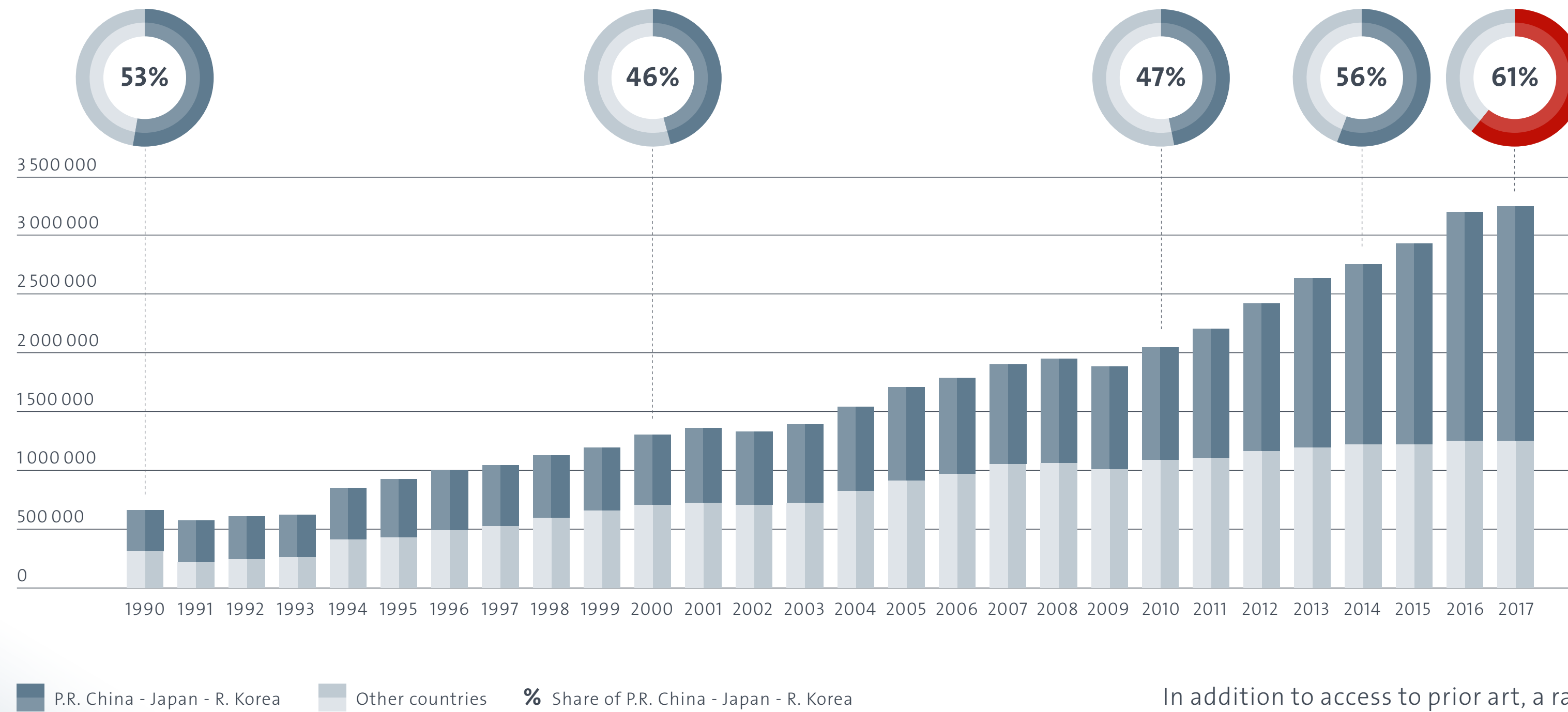
In addition to access to prior art, a range of other measures have helped the EPO to ensure that the quality of its products and services meets the high standards laid down by the EPC, its secondary legislation (Implementing Regulations) and the Guidelines for Examination. Since 2015 the Office's quality management system (QMS) has been certified to ISO 9001 standards and, after four years of cumulative success, the Office now intends to develop internal measures that enhance the quality of both its products and services. In parallel, the EPO will work to ensure that a common definition of quality is agreed with its users, boosting the confidence of all those who rely on the Office's reputation as a provider of legally robust patents. A common definition of quality will rely on greater input from the Office's network of stakeholders. The EPO will enhance mechanisms for gathering timely, direct feedback, as a basis for further improvements. *(Key Initiative 2)*

In recent years, the EPO has received requests from its users to deliver high-quality patents in a more timely manner. Launched in 2014, the Early Certainty initiative has met that need by helping to reduce the average time needed for search, examination and opposition. As a result, the EPO's users have been able to obtain greater legal certainty at an earlier stage, which has, in turn, helped enterprises to take strategic decisions on the use of their innovations, patents and IP portfolios. There has also been a benefit for the Office. Reduced processing times at all stages of the patent granting procedure – combined with increasing production – have contributed to a reduction of the Office's backlog of pending files. At the current rate of progress, the Office expects to reduce its backlog to a steady-state regime within three years. The EPO is also currently assessing what constitutes an optimal stock.

With a more manageable stock, and an agile, faster patent granting process, the EPO is in a better position to expand the choices available to its applicants as to the timing of the patent granting process. Applicants will be able to rely not just on a standard, timely service, but will also be offered an expanded range of products and procedures. This will ensure that the patent granting process is more flexible for its users, and more closely matches their specific needs, in terms of timing. *(Key Initiative 3)*

While a range of initiatives will support high quality and better timeliness, the level of the EPO's services ultimately depends on the EPO's staff. Having attracted more than 4 000 highly qualified engineers and scientists from across Europe, the Office has benefited from the commitment and expertise at the cutting edge of their respective fields. With more modern and collaborative working methods, the EPO's staff members have the potential to contribute to even greater quality and more effective IP. The EPO will therefore continuously invest in enhancing the knowledge of examiners and formalities officers, and in methods to efficiently facilitate the transfer of that knowledge. Both formal and informal collaborative models of working will be developed to share knowledge, enhance constructive feedback and foster a greater sense of purpose, which will, in turn, raise the quality and efficiency of the EPO's core operations. *(Key Initiative 4)*

Tackling the backlog
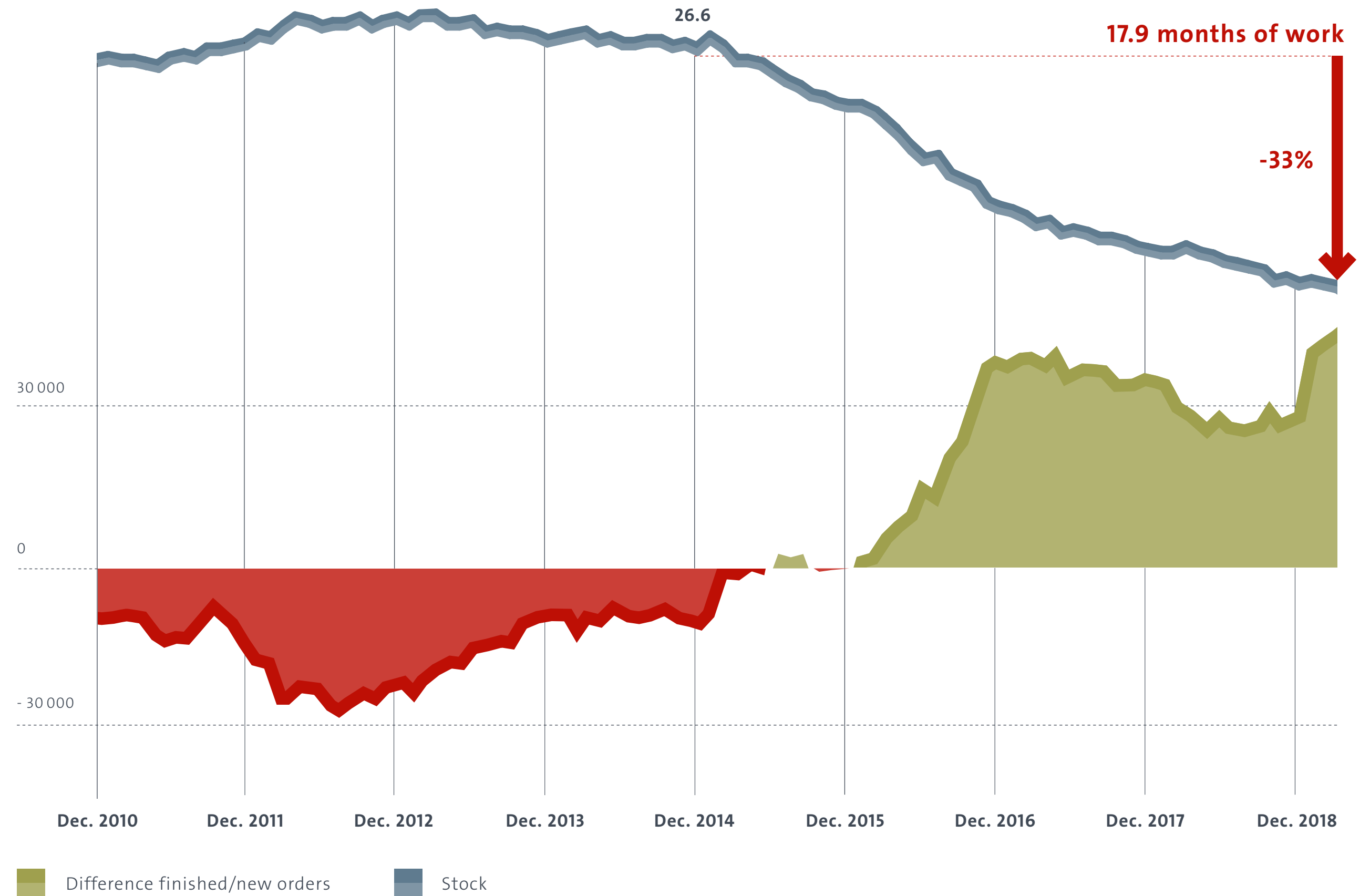
The stock is defined by the number of all product orders (i.e. search, examination, opposition) for which a final legal decision is still pending with the EPO. A product order is pending irrespective of whether it is waiting for completion of the statutory period, or for action by the examiner or the applicant. New orders are all incoming product orders (i.e. search, examination, opposition) at the EPO during a period. Finished orders are all product orders for which a final legal decision has been made by the EPO during a period, and no further action is possible.

Unified end-to-end patent granting process
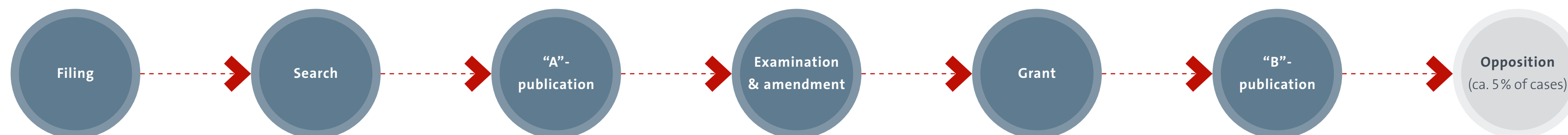
The EPO's staff must also be able to rely on IT tools that can effectively support modernised and collaborative working methods. In conjunction with the IT initiatives listed under Goal 2, the EPO will create a new digital end-to-end patent granting process that will support examiners and formalities officers effectively in their efforts to make further gains in productivity and quality, providing a fully digitised process that is fit for the 21st century. *(Key Initiative 5)*

Filing ⟶ Search ⟶ "A"-publication ⟶ Examination & amendment ⟶ Grant ⟶ "B"-publication ⟶ Opposition (ca. 5% of cases)

As the Office achieves a steady-state regime, it will also be necessary to safeguard this situation by improving the management of remaining stock and incoming files, and rebalancing the workload appropriately. This implies that the Office must be able to allocate files to relevant departments with the most suitable staff in the light of fluctuating volumes of incoming work in different technical fields. In other words, the EPO will organise its workflows in a way that strikes a balance between flexibility and technical specialisation. Its internal evaluation system will be adapted to ensure the EPO's agility in an evolving patent landscape, while safeguarding staff engagement. *(Key Initiative 6)*

With quality assured and staff working in a more collaborative environment, supported by a digitised process and balanced workloads, the Office will be firmly on course to achieve a more innovative environment. Effective tools and collaborative working will fuel creativity and efficiency to foster the development of new products and services that further support industry, universities, research centres and inventors. This exercise will be carried out in close collaboration with the EPO's member states and users. *(Goal 4)*

Key Initiative 1: Master the prior art

The EPO's ability to carry out efficient, high-quality searches depends upon comprehensive access to the very latest documents on technological developments.

This prior art, consisting of patent and non-patent literature (NPL), is increasing exponentially. The Office will therefore continue to make ongoing investments to enrich the content of its databases and ensure their accuracy.

There will be a special focus on Asian documentation and standards, which both continue to grow quickly.

About 48% of the EPO's search reports currently include an Asian-origin patent citation, and approximately 23% of the patent citations in EPO search reports contain at least one Asian citation that is only available in the original language. Through its Patent Translate tool, the EPO has been able to overcome language barriers. However, more investment will be made in automatic translation tools to keep pace with the increasing amount of prior art and to achieve even greater levels of accuracy, which will contribute to higher-quality patents.

Number of standards documents available to EPO patent examiners
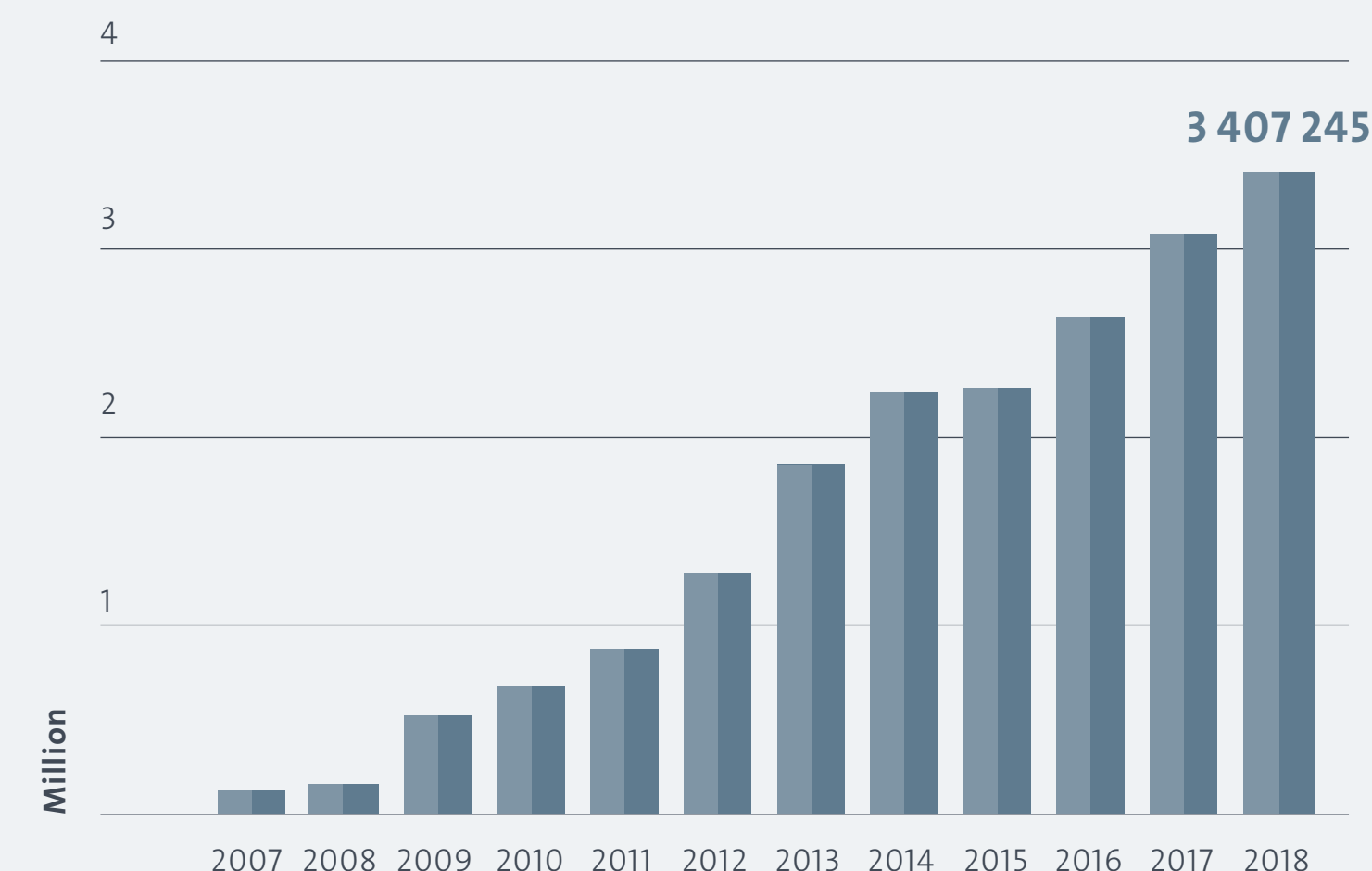
Number of standards citations in EPO search reports

Goal 3
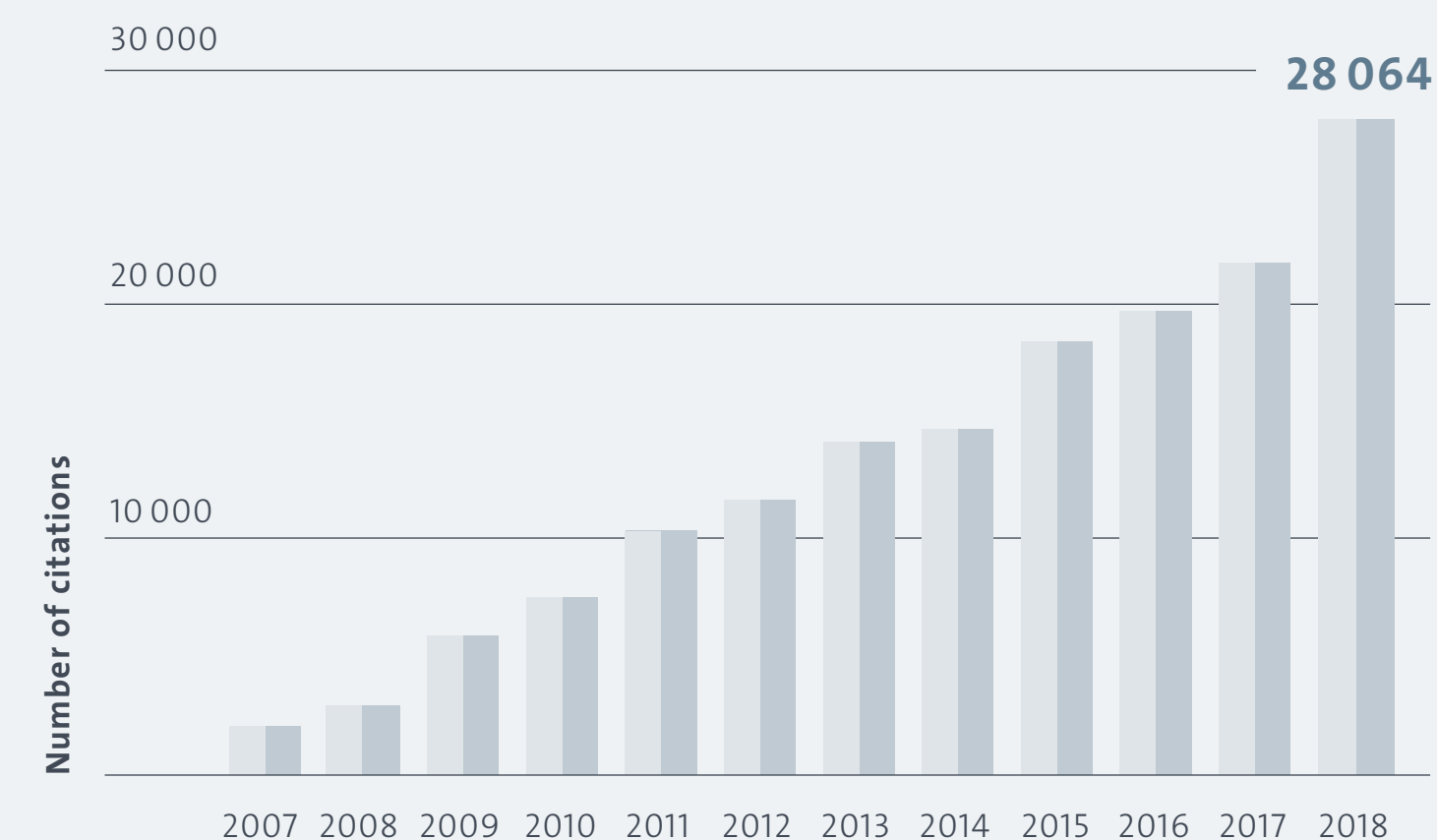
Average number of machine-translated documents consulted by examiners per completed search report, 2012-Q1/2019
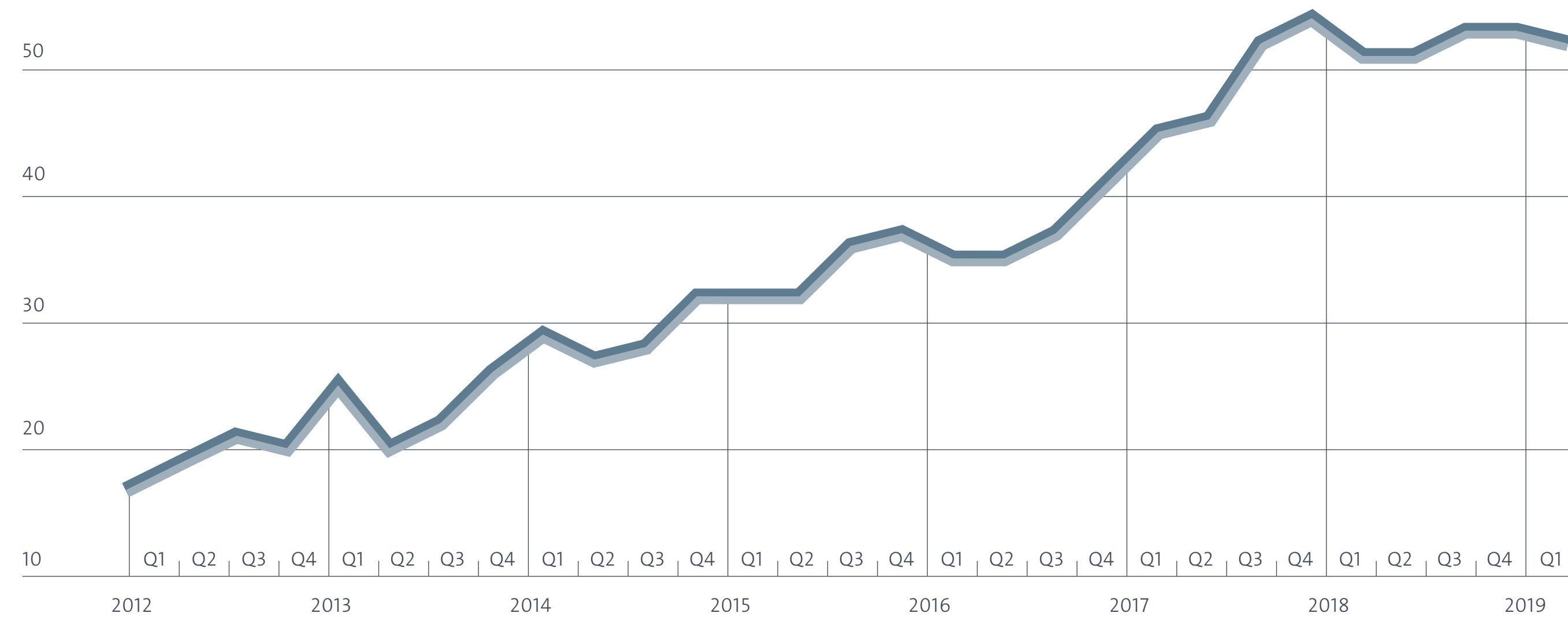
Investments in the associated search tools will also help to enhance both quality and efficiency in the patent granting process. Automated pre-classification will help to ensure that a dossier is allocated to the team with the correct technical expertise. Pre-search will provide examiners with a concise list of potentially relevant documents at the start of the search, marking the Office's commitment to achieving an increase in the percentage of relevant documents. Meanwhile, search tools will be extended to include more types of data. *(see Goal 2)*

Accurate searches and the retrieval of the most relevant documents as early as possible depend on the correct classification of incoming documentation. The Office will therefore invest the necessary examiner time, set up suitable support structures and improve the tools used to classify all incoming documents systematically and correctly in the CPC within six months. The classification backlog will be absorbed by no later than the end of 2020.

Key Initiative 2:
Improve quality

High quality is a defining feature of both the EPO's products and its services. Users familiar with the world's largest patent offices have judged the EPO to be the provider of the highest-quality patents and services and the EPO's own user satisfaction survey has revealed incremental increases in satisfaction.

To retain its reputation as a leader in patent quality, the Office is implementing a series of measures internally, and in conjunction with its external stakeholders is committed to continually improving the quality of both its products and services.

The EPO's quality management system plays an essential role in helping it to achieve higher quality levels. Since 2014 the quality management system (QMS) of the patent granting process has been ISO 9001-certified, and the EPO has continued to invest in quality by widening the scope of its QMS. In 2015 patent information and post-grant activities also achieved ISO 9001 certification, and in 2017 the EPO was recertified under the enhanced requirements of the revised ISO 9001:2015 standard.

The EPO's Quality Management System

Patent process

ISO 9001:2008 certification	⊕ Scope expanded to include		ISO 9001:2015	
Patent granting process	**Patent information and post-grant activities**		**Recertification of the patent process**	**Surveillance audit of the patent process**
− Search − Examination − Limitation/revocation − Opposition − Classification − Supporting processes	− EP publication − EP Register and Bulletin − Post-grant fee handling	Audit on preparatory work for UPP for integration into the patent process[1]	The scope of the QMS is the end-to-end patent process	Yearly audit to assess the continual improvement and maintenance of the QMS
2014	2015	2016	2017	2018

[1] Ratification pending. Integration in the QMS after a period of operational implementation.

The QMS will now be scaled up so that it can help the Office to quantify, substantiate and implement continuous improvements. Within our QMS, auditing, monitoring and user input all play an important role. Measures will be taken to ensure that there is not just close alignment of quality within the EPO, but also between the EPO and its stakeholders.

Firstly, the Conformity Assurance for Search and Examination (CASE) system of file-checking will be fine-tuned. As the Office moves towards a more collaborative system of working, the CASE system will only be used to transfer knowledge among examiners and measure improvements in quality as a result of team work between examiners.

Secondly, the EPO will reinforce the role of internal independent auditing in assessing and measuring the quality of the EPO's products and services. The EPO's Directorate Quality Audit (DQA) currently audits the compliance of products delivered by patent examiners and formalities officers with the applicable legal requirements. The DQA will now be

tasked with increasing the number of sampled files, ensuring that there is greater coverage of files audited, which will provide a more accurate assessment of quality and alert the EPO quickly to areas where corrective action is needed, such as the recent decline in the compliance rate of grants. In addition to randomly selected files, a risk-driven approach will also be implemented to identify and target specific file types that are known to be more prone to errors. For example, special attention will be paid to files where there has been no intervention of the division between filing and grant, and to files with searches in which no relevant document has been found, or in which the categorisation of cited documents changes (e.g. a document cited as relevant for novelty or inventive step in the search report was converted into a state-of-the-art document in the examination phase.)

Furthermore, auditing teams will be rotated more frequently. The organisation will build on the expertise of senior experts, who will play a key role in helping to ensure that there is a better understanding of quality throughout the organisation and closer internal alignment on the definition of quality. These senior experts will receive training that will allow them to devote some of their time to auditing under the remit of department quality audits (DQA). This will also improve co-operation and harmonisation between the DQA and the examining divisions.

Other measures will include training to be provided on lean practices to help simplify processes and achieve higher quality through continuous improvement. The operational boards like the Quality Board (QB) and the Executive Operations Committee (EOC) will also be streamlined and merged.

The Office will also review its Guidelines for Examination as to both their content and the process leading to approval. More secondary legislation will be merged into the Guidelines, bringing increased transparency, predictability and legal certainty, which, in turn, will lead to increased quality and reduced costs. All sources of administrative practice and interpretation should be incorporated into the Guidelines, resulting in greater transparency for both examiners and users. The role of users and stakeholders will be enhanced during the consultation phase and the Guidelines will be made digitally accessible.

Finally, all quality indicators from 2020, including timeliness, will be organised around excellence, compliance and action needed. Regular reporting will facilitate the progress of the implementation and recognition of the Office's achievements.

While the EPO strives to make improvements internally, external feedback from users on quality is essential to maintaining and raising quality levels. For example, satisfaction surveys can help to determine whether there are any deficiencies or areas where further improvement measures are necessary.

Specifically, the user satisfaction survey (USS) constitutes an important source of information for measuring user satisfaction with the EPO's performance in each of its three main technology sectors: Mobility and Mechatronics (M&M), Healthcare, Biotechnology and Chemistry (HBC) and Information and Communications Technology (ICT). Each sector is currently the subject of a separate USS conducted every three years. From 2020 the surveys will be aligned so that they are carried out biennially for every sector in the same year. A consultation exercise will also be carried out in 2019 to ensure its continuous relevance.

Despite positive results in the USS and other external independent surveys, recent feedback has indicated that perceptions of quality occasionally differ between the EPO and its users, as well as between the various user groups.

To continue to develop an effective IP system, the Office needs to have a clear understanding of the needs of its users and stakeholders, particularly in the field of quality. In the future, the Office therefore intends to engage more closely with its users, via its Standing Advisory Committee (SACEPO) and its various sub-groups and through the Patent Law Committee and other stakeholders and forums, such as the member states, the Boards of Appeal and the judges network.

Generally, the EPO will engage more actively and consistently with a wider range of stakeholders. The EPO will broaden the composition of its working groups and governing bodies to ensure greater transparency and a better balance between the interests of different stakeholders, while simultaneously ensuring operational efficiency. Measures will include online consultations on specific procedural topics and specific events on particular subjects.

User satisfaction survey

% satisfied or very satisfied

Search | Examination | Opposition | Formalities
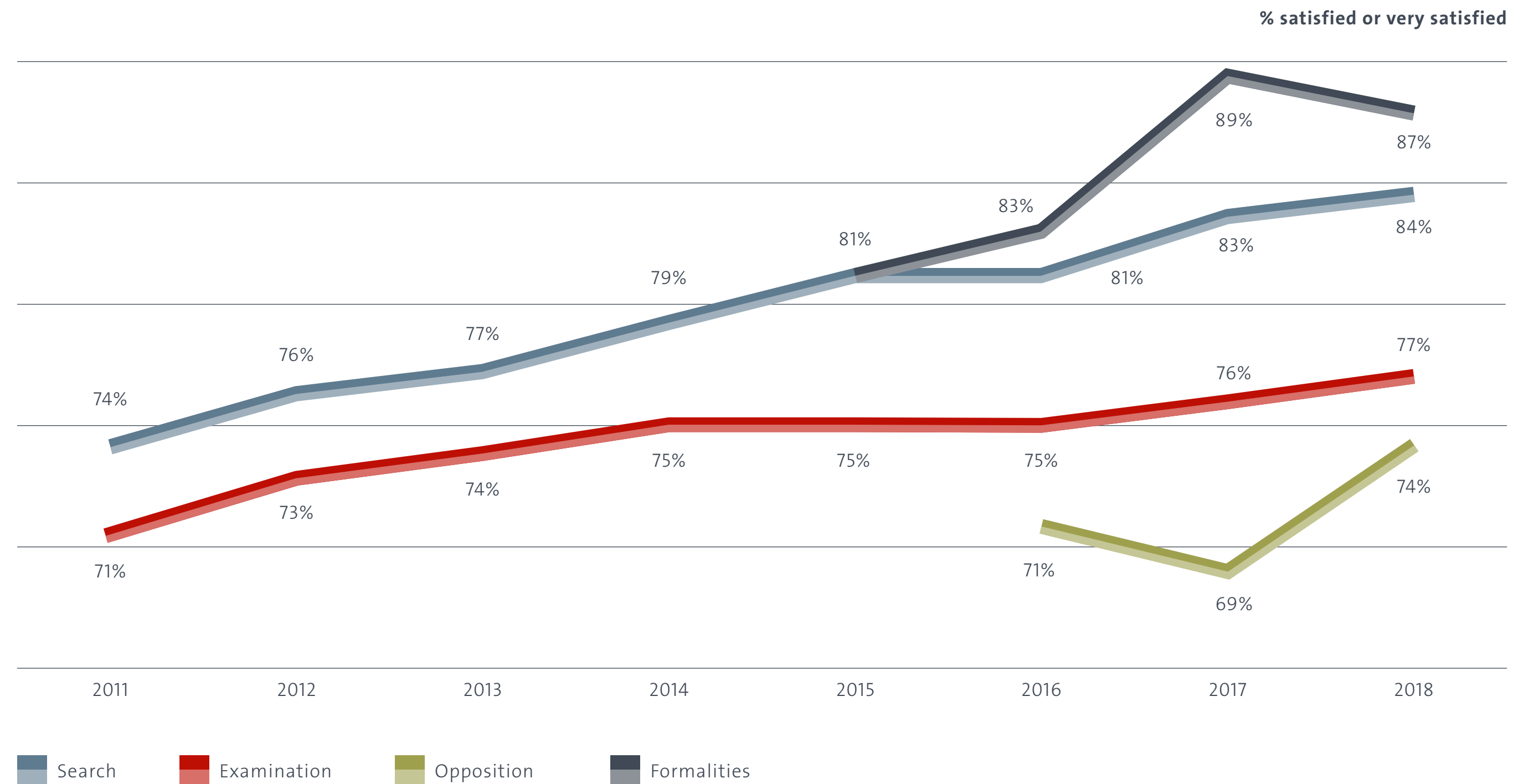
Key Initiative 3:
Offer a more flexible patent grant process

In recent years the Office has been able to offer greater flexibility in the timing of its patent granting process and has improved its timeliness.

The launch of the Early Certainty initiative in 2014 played a major role and was based on a clear set of objectives:

– Searches and written opinions – to be delivered within an average of six months or less;

– Examination – to be completed on average within 12 months from the valid request for examination;

– Opposition – to be completed within 15 months from the end of the opposition period.

In addition, applicants have benefited from even greater flexibility offered by an acceleration programme, whereby the prosecution of individual applications can be further prioritised and accelerated by applicants (PACE), or even triggered by third parties.

For EPO users, the PACE programme and the Early Certainty initiative have helped to provide legal certainty more quickly. In addition, efforts to process files more rapidly, combined with greater productivity, have enabled the Office to regain control of its backlog in searches. The Office is also steadily moving towards an average of 15 months for opposition, whilst maintaining high levels of fairness between all parties in the handling of procedures.

With good progress being made in search and opposition, the Office recently shifted its focus to reducing the examination backlog. Nearly all examination requests filed before 2010 have been successfully dealt with, and the Office has started examination of all requests filed after 2010.

On the basis of the progress currently being made on timeliness at all stages of the patent granting process, the Office is expected to achieve a steady-state regime within three years. With its backlog falling and files being dealt with in a more timely manner, the Office now has an opportunity to deliver a more flexible patent granting process to its users.

Current timeliness – mean vs. median (April 2019)

Search
Timeliness in
months

Examination
Timeliness in
months

Opposition
Timeliness in
months

The time needed for search, examination and opposition is currently measured in months using a median average. By 2020, time will be measured using a mean average, which will give a more precise measurement of timeliness that takes outliers into account. In examination, an "accelerated" processing time could be set at 6 to 12 months on mean average, from receipt of a valid examination request to first intention to grant. A "standard" processing time for examination could be set at a mean average of between 12 and 24 months. A maximum processing time of no longer than 36 months on mean average could be implemented. The limit of 36 months would balance the interests of applicants with the interests of third parties or the public and is close to the best processing time offered today by other leading intellectual property offices. The goal for opposition is expected to remain at 15 months on mean average.

Finally, to increase the transparency of proceedings, the Office will provide users with access to a comprehensive portfolio of all their files. This portfolio will include information on the status of each item, including estimated dates for next actions. *(see Goal 2)*

Early Certainty and PACE will be replaced by a new programme that offers different procedural deadlines to meet different users' needs for both search and examination. Specifically, for search the Office will explore the possibility of offering a search and written opinion delivered in one week, as an option for applicants that need nearly instant results. The EPO will also explore the option of offering a pre-filing search that gives applicants an initial assessment of patentability. *(see Key Initiative 7)*

Key Initiative 4: Encourage collaborative work and knowledge transfer

Collaborative working methods such as peer-to-peer exchanges, teamwork, work-sharing, knowledge transfer initiatives and dissemination of best practices can bring a number of recognised benefits to an organisation.

These advantages include greater quality, productivity, team performance, staff engagement, staff satisfaction, professional pride and development. Collaborative models can also facilitate networks and foster cross-sector harmonisation of best practices, knowledge-sharing and contacts with applicants.

At the EPO, three-person divisions play a fundamental role in the patent granting process and this form of close collaboration lies at the heart of the EPC. The divisions are composed of three highly qualified examiners who handle the patent application from search to final action. The search, examination and opposition divisions and their breadth of legal and technical skills make the EPO unique among patent offices and contribute to its reputation as a world leader in quality.

Three-person divisions are constituted to bring together the appropriate level and type of expertise with the technological knowledge required for each file. The first member is entrusted with the work, the procedural aspects are checked by the second member and the final outcome is evaluated by the chairperson. In most cases, the second member and the chairperson only intervene at a later stage, once the search or examination strategy has been defined and the work carried out.

Early involvement of the whole division in assessing and processing the file will lead to higher-quality work and potential efficiency gains in search and examination.

Some teams are already working more collaboratively. A pilot is running to explore best practices in this enhanced method of working, which will be evaluated and disseminated throughout DG 1 based on the results.

Increased collaborative work within both the division and teams will be fostered to promote learning and best practices. Collaboration between search and examination divisions will also be further enhanced to bring the breadth of technical knowledge required to ensure the completeness of all searches and the highest quality in examination. In cases where it is appropriate, virtual divisions will be created using new tools. This will bring together the relevant expertise from across the EPO's teams and sites that is also needed to deal with complex or multidisciplinary files.

Best practices in examination and opposition will be identified and implemented throughout the Office. Procedural and technical excellence will be promoted through the senior experts network. The role of staff-driven initiatives and collaborative networks, such as continuous knowledge transfer (CKT), the Asian Patent Expert Group (APEG) and the computer-implemented inventions (CII) module, will be strengthened and actively supported. Other staff-driven ideas will be evaluated, given due attention and potentially implemented if aligned with the aims of the Strategic Plan.

As mentioned under Goal 1, appropriate training in core and soft skills will be provided for examiners and formalities officers. Training will be customised to meet individual needs and correspond to different skill levels. In addition, examiners will be encouraged to pass the EQE. The programme will be redefined to ensure that the experience gained by examiners under schemes like Praktika Extern contributes to the requirements of the EQE. Lastly, the role of formalities officers will also be reviewed to gradually bring it closer to that of a paralegal, to the extent permissible under the EPC. To this end, the Office plans to launch a new type of certification for formalities officers in the form of a European Patent Administration Certificate, for example. The programme will be progressively extended to national offices and paralegals to support both quality and the dissemination of skills throughout the IP community.

In a joint effort to transfer knowledge within the organisation, a "quality dialogue" will be launched between the Office and the Boards of Appeal. This will facilitate an exchange on best practices in drafting first-instance decisions, procedural developments and current trends in DG 1 and Boards of Appeal decisions.

Key Initiative 5: Harmonise and simplify patent procedures and processes

The EPO's annual results have shown that the production of the Office has increased in recent years, while external surveys have shown that both quality and timeliness have also continued to improve in parallel. These positive results have largely been achieved thanks to the diligence, commitment and professionalism of the EPO's staff.

While efforts by the EPO's employees have already led to certain gains, the Office's examiners and other staff must now be supported with an efficient, and highly performant IT tool that helps them to achieve higher quality levels and work more efficiently. Specifically, if positive trends are to continue, the patent granting process needs to be simplified and streamlined. *(see Goal 2)* Past failed attempts have shown that it is fruitless to create a digital back office that merely attempts to reproduce paper-based processes. Highly complex procedures for a small number of cases have also produced disproportionately heavy costs for the IT system. The streamlining therefore needs to exploit opportunities based upon a fundamental digital transformation.

An assessment of the EPO's patent granting procedure is underway to identify short-, medium- and long-term measures and different potential lines of action that could help to harmonise and simplify processes, as part of the move to an electronic grant process.

This could potentially reduce the number of procedural errors and improve communications with users. There will also be a number of associated positive effects, such as a substantial reduction in paper consumption and print toners, which will make an important contribution to the Office's environmental sustainability. In the meantime, remaining paper processes will be assessed and optimised so that immediate gains in quality and efficiency can be made wherever possible. EPO staff will also be encouraged to propose innovative solutions.

The EPO's fees, payments and refund methods will also be reviewed and streamlined. There will be a focus on items that are perceived as particularly burdensome by both users and the Office. A number of small and rarely-used fees could be abolished entirely or merged with other fees. There is also potential to further align the fees for European and PCT applications. The fee structure will also be reviewed to create incentives for applicants to further enhance the quality and efficiency of the patent granting process. Finally, automatic debiting payment mechanisms will be considered and the process of providing refunds will be streamlined further.

Goal 3

Key Initiative 6:
Improve the management of our stocks

As the Office brings its backlog under control, the EPO will be more exposed to variations in demand. This calls for a more dynamic business model to ensure increased productivity and more effective management of incoming work.

Greater adaptability and flexibility among examiners and formalities officers will constitute a major element of this dynamic business model. It will therefore be crucial to identify emerging trends early, so that if a staff member needs to change technical field, proper training can be offered well in advance. A complete mapping of the competencies of our formalities officers and examiners will also ensure that the Office can achieve the best match between staff competencies and tasks in hand. Examiners and formalities officers will identify new areas of competence they would like to master in the future, and undertake relevant training, so they can be highly specialised, but remain flexible and agile.

The Office will always carefully assess whether files should be transferred or staff redeployed. The transfer of files between teams is appropriate for dealing with short-term imbalances, but the redeployment of staff should be the preferred choice when structural changes occur.

The role of second examiner will be used to give staff hands-on training in new fields. This approach will, in turn, guarantee that there is no trade-off between the need for a high level of specialisation among our examiners and the need to increase adaptability and flexibility.

The organisational structure will also be constantly reviewed to maintain the right balance of roles and responsibilities both within and between sites. In particular, the Office will ensure the necessary examiner and formalities officer capacity in Berlin to promote the site as a centre of expertise on artificial intelligence.

At the beginning of each year, the Office will set a clear production reference target. However, as the EPO achieves a steady-state regime and can no longer depend on a substantial backlog, it will be necessary to review the reference target throughout the year according to variations in demand and stock, and to adjust it accordingly. This model will gradually depart from a purely product-based approach dependent on the option of processing files in the backlog, and will evolve towards a model based on more effective and responsive stock management and offering higher levels of quality and timeliness.

Staff members will be able to monitor their performance within each team and directorate. To this end state-of-the-art management dashboards will be deployed to assist the monitoring of both performance and incoming work. This will improve data transparency at the organisational and individual levels.

Key Initiative 7:
Develop innovative products and services

As the Office reduces its backlogs it will explore, within the framework of the EPC, the option of developing innovative products and services that meet the needs of the EPO's users in a fast-evolving technological environment. In doing so, the Office aims to put the expertise of its staff and the power of its tools at the service of innovation and creativity.

Further consultation with member states will be needed to ensure that potential new services such as pre-filing searches are fair and implemented for the benefit of all stakeholders, particularly the users. Although it is difficult to predict the financial revenues that will be generated by these options, they can be expected to have a positive operational impact. More importantly, these products and services could be highly beneficial to the European innovation system.

Moreover, some users have expressed the need to receive an analysis of the prior art at the earliest possible stage for their most important projects. One option could be to offer them the possibility of requesting a search and written opinion within one week. This service would enable applicants to make more-informed decisions about their IP strategies, and to decide quickly how to proceed with their applications. This would have an additional positive operational impact on the Office's stock management, as incoming work would be dealt with more quickly.

Goal 4

Build a European patent system
and network with a global impact

Introduction

The European patent system and the high-quality patents granted by the EPO have helped to support a vibrant innovation sector, which has contributed to European economic prosperity.

Studies have shown that IPR-intensive industries have added value to GDP, and contributed to exports and employment. The steady rise in applications at the EPO also indicates that legally robust IP has bolstered Europe's attractiveness as a lucrative and dynamic market, and as a technology hub for innovators and enterprises from around the world.

Importance of IPR-intensive industries for EU economy

Contribution to EU trade

Share of EU imports: 66%, 86%

Share of EU exports: 71%, 93%

Patent-intensive industries
IPR-intensive industries

Contribution to EU GDP

42%
15%

IPR-intensive industries: €5.7 trillion

Patent-intensive industries: €2.0 trillion

Share of EU employment

38%
17%

IPR-intensive industries: 82 million jobs

Patent-intensive industries: 36 million jobs

Wage premium

+69%

+46%

530 — Non-IPR-intensive industries
776 — IPR-intensive industries
895 — Patent-intensive industries

Source: IPR-intensive industries and economic performance in the European Union – Joint Report 2016 from the EPO and EUIPO – data 2011-2013.
Note: IPR: IP rights: trade marks, patents, designs, copyright, geographical indications and plant variety rights.

Co-operation within Europe and with partners outside of the EPO's member states has been a contributing factor to that success. Working together with EPO member states and their national patent offices (NPOs) has helped strengthen the European and national patent systems, spread specialist IP knowledge, and avoided duplication of work. Further afield, the EPO's work with international partners in forums such as the IP5 and Trilateral has contributed to a greater harmonisation of procedures. Agreements with both European and non-European partners have also helped the EPO to obtain access to global patent information and to disseminate this data to its users.

The unitary patent and Unified Patent Court will play a significant role in reducing the complexity and costs of the European patent system. Within the remit of its competences, the Office will promote and facilitate the uptake of the unitary patent and help to remove any impediments to it. However, despite the imminent introduction of the unitary patent and the success of the EPO's co-operation initiatives so far, the Office faces a number of demands and challenges that need to be met if the organisation is going to continue to deliver benefits for all users of the patent system.

One of the first clear user requirements is access to comprehensive patent information. The data generated by both patent and non-patent literature can be an invaluable source of information and insight for users in assessing new technological trends and taking strategic decisions on their patent portfolios. However, in recent years there has been a global increase in the volume of patent applications and patent literature, covering increasingly complex technologies. Furthermore, a growing number of players are involved in the generation and dissemination of patent information. The EPO must therefore respond by working more closely with its network of partners to ensure that the patent information it offers to users is complete, managed effectively, and made available in a user-friendly format. Users will also need effective tools and high-quality training that helps them to understand this data and supports their activities. *(Key Initiative 1)*

Objectives of the unitary patent package

Simplified and **broader** **patent** **protection** in Europe at **lower cost**

Provides **better value** with **reduced complexity**

Facilitates access to patent protection for **SMEs, universities** and **public research centres**

Makes **Europe more attractive** for innovation and investors

Boosts Europe's **competitiveness**

As well as equipping its users with patent information, the EPO can also work to ensure that users are equipped with IP knowledge. The Office will aim to make the European Patent Academy a benchmark for excellence in IP training in close co-operation with its member states. With more trained professionals throughout Europe and with access to the highest standards of IP education, the innovation sector will be strengthened by higher standards of expertise. The Academy will also aim to ensure that its training operates on the principles of effective planning and will appeal to all stakeholders through customised training. *(Key Initiative 2)*

Co-operation activities will be revised to deliver greater efficiency in the EPO's projects and initiatives undertaken with partner countries. Based on a revised financial offer, the EPO will play a well-defined role in supporting its partners to strengthen their patent system and services. The EPO is in a prime position to support member states with the implementation of co-operation activities involving seconded national experts and by contributing other expertise. Co-operation will also be modernised by implementing a project management approach focusing on efficiencies and deliverables, and supported by a regional approach. *(Key Initiative 3)*

In defining those co-operation activities that will have the greatest impact, the EPO will offer a catalogue of potential projects based on four pillars that will help to strengthen the European Patent Network (EPN). With the digital transformation underway, the Office will be able to provide all partners in the EPN with a portal on co-operation activities. With IT systems built on a more modular approach, the Office will be better placed to offer member states co-operation in the area of IT tools that will support a more modern, efficient and high-quality patent system throughout Europe. *(Key Initiative 4)* Closer co-operation will also positively impact on the assessment of training needs throughout the member states and support effective planning for disseminating IP expertise. With a high-quality patent grant process, the Office is also in a position to support partners with work-sharing initiatives, enabling them to benefit from work already done by the EPO and free up their own resources and capacities. As offices throughout Europe seek to reduce their administrative workload, the co-operation framework also offers a suitable framework for increasing convergence and supporting the spread of best practices.

Goal 4

Co-operation activities have allowed the EPO to reap a number of benefits. For users, greater access to patent information has been provided, along with the option of obtaining patent protection in up to 44 states – well beyond the borders of the EPO's member states. Meanwhile, national patent offices have benefited from training programmes by EPO experts and the ability to reuse the EPO's search results. By promoting all-inclusive and equally open co-operation activities to all of its member states and building technical expertise in implementing and maintaining the co-operative results across the EPN, the Office will strive to maximise the impact of co-operation activities for the benefit of its users.

This will be achieved partly by increasing the number of territories in which it is possible to obtain a European patent, or in which the EPC has an effect. The Office will continue to prioritise validation agreements as the preferred and strategic form of co-operation with non-member states and the reinforced partnership as an alternative model. In all cases a regional approach requiring fewer resources and achieving a greater impact and undertaken in close partnership with the EPO's member states and European and international organisations will be favoured. The EPO must lead efforts to promote an efficient and effective global patent system, as well as to fulfil its mission defined in the EPC. *(Key Initiative 5)*

With a stronger EPN, using more effective tools and practices as a result of co-operation activities, and a higher-impact co-operation framework, the EPO and its member states will be in a stronger position to export European common standards internationally.

extension agreements

validation agreements

reinforced partnerships
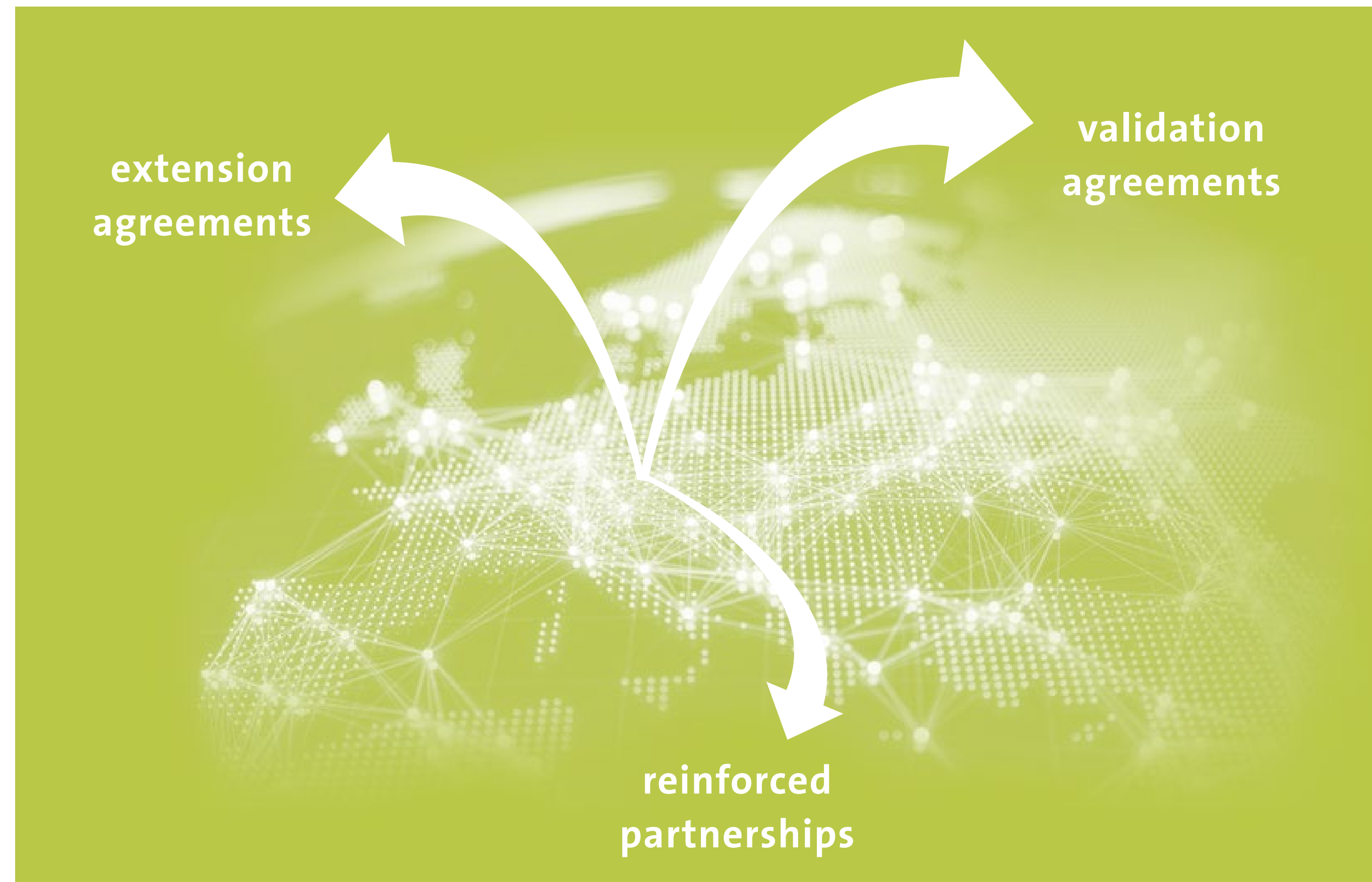
Key initiative 1:
Enhance access to patent information

The patents granted by the EPO reward human ingenuity and creativity by establishing legal protection for inventive ideas, thereby allowing innovators to bring their inventions to market with confidence.

At the same time, the patent system furthers the interests of society and technological development: technical information and other documentation is made available to the public, so that all can understand and build upon the latest technological breakthroughs.

The accumulated patent documentation constitutes an invaluable source of patent information that can be accessed and used freely by anyone, from anywhere in the world. Technological developments and co-operation with other offices have allowed the EPO to integrate, link and make available large volumes of data, with a focus on accessibility. In addition, the Office has also provided flagship tools and training services to help users understand and exploit this wealth of available patent information.

Moving forward, the EPO will continue to develop global standards in patent information, by ensuring that the data available is complete, and that users are able to access it in a simple and straightforward manner. This key initiative will therefore systematically increase the quality and level of data available, foster data access through agreements with providers and partners, and align the tools with digital developments at the EPO.

Patent information services will be developed to expand the data available to users. Data will also be enriched, so users can obtain a complete and coherent picture of the current status of protection for an invention. Patent data will be interlinked with the legal status of the related application, including relevant court decisions, and information will be provided on the possibility of licensing granted patents. To ensure that high-quality data is delivered regularly and integrated into the EPO's systems, the formats and updates will be standardised. These standardisations will be implemented through agreements with providers and co-operation partners. In particular, the Office will aim to define a clear data management policy in close co-operation with member states. Additionally, the EPO will strive to offer statistical data tools that provide a meaningful picture of technology trends and can be used in analyses that are useful to a range of different parties.
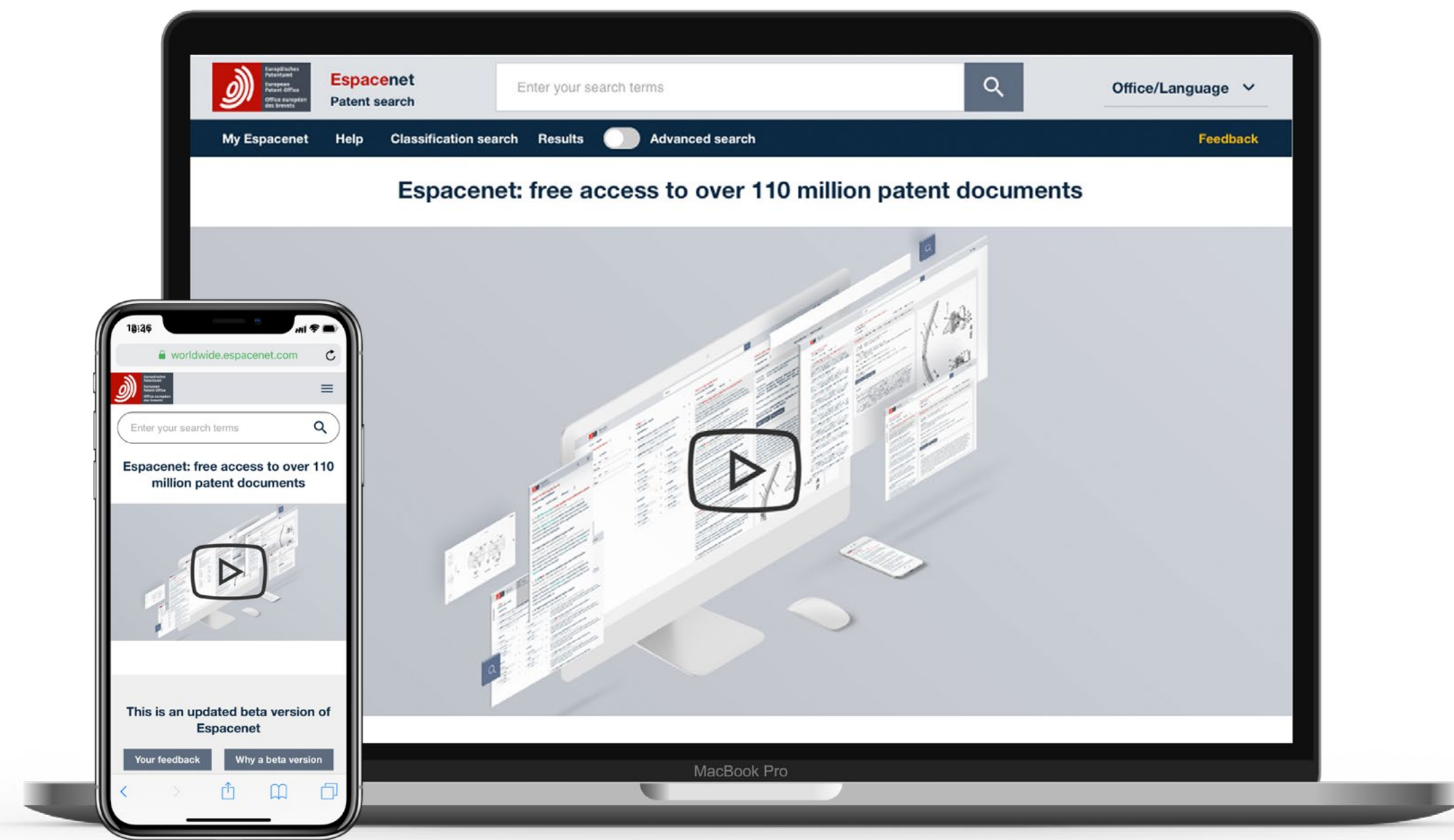
The EPO's new web governance policy will enable a better customer experience and improved efficiency throughout the EPO's web presence, by providing consistency and quality across all external online channels and services. The EPO's different patent information tools and services, including Espacenet, the Federated Register and machine translation, will adhere to this policy. Access to the different patent information tools and services for users will be provided through a single portal. The expectations of users will be regularly monitored through open feedback and dialogue.

The EPO will continue to support users with training and services to help them exploit patent information. The role of the EPO's Vienna site as the centre for patent information dissemination will be reinforced. The Office will create a hub for technology transfer in collaboration with member states within the framework of a second generation of PATLIB centres, offering new services in the area of technological transfer and supporting universities, research centres, inventors and SMEs. This renewed PATLIB 2.0 network will provide a platform for patent offices and other network players to address their service offering to reinforce the effectiveness of the patent system.

Key initiative 2:
Improve access to patent knowledge

The EPO's Academy plays a vital role in ensuring that users of the European patent system have the knowledge and skills necessary to operate effectively. Current initiatives include training staff from national patent offices and assisting in the organisation and administration of the European qualifying examination (EQE).

Given this strategic role, the Office will enhance the capabilities of the European Patent Academy to provide education and training. The aim is to transform the EPO Patent Academy into a benchmark for excellence in IP training. It will bring innovation and learning together and develop standards for IP training and certification in collaboration with member states.

The Academy's governance structure will be reviewed with a view to creating synergies with the EPO's internal talent academy and reusing best practices. Today the existence of two different academies leads to a misalignment of content, its format, methodologies, management teams and providers.

The Academy will plan its services more effectively, not just to cater for the current needs of customers and users, but to anticipate their future requirements. It will enhance co-ordination with stakeholders to define the appropriate level of resources and training needs well in advance and to offer a more comprehensive and integrated high-quality training portfolio to the IP community. To this end, the Office will prepare and present an annual programme for the Academy, after due consultation with the member states and other stakeholders.

Training activities, including events and courses, will be made more attractive by ensuring that the content is relevant to the different stakeholders. A special focus will be placed on professionals (attorneys, litigators, advisors) and researchers, as well as on developing new training needs stemming from co-operation activities.

The EPO's current e-learning centre will be expanded. The learning will be structured more effectively through a modular and segmented approach (beginner, intermediate and expert). E-learning will also be made available through different channels and media. The Office will make use of the best user interaction technologies and cutting-edge technologies like big data analysis and artificial intelligence as far as possible.

Key Initiative 3:
Maximise the impact of co-operation

To generate added value for its users, the EPO intends to revise its financial support of co-operation activities with a view to encouraging the participation of all relevant stakeholders; supporting the effective implementation and maintenance of the results of co-operation activities; adopting a project-management approach to ensure cost-efficient and timely co-operation deliverables; and favouring a regional approach to maximise the impact of co-operation activities.

With regard to its financial support for co-operation, the Office will propose a new model to its governing bodies making co-operation activities all-inclusive and equally open to all its member states. This will involve establishing new financial conditions whereby 80% of the overall investment will be borne by the EPO and the remaining 20% by the NPO, which can also take the form of a contribution "in kind".

Furthermore, experience often shows that the capacity to implement, maintain and further improve co-operation initiatives is not driven solely by financial resources, but rather by operational factors. Future co-operation activities within the EPN will therefore include the possibility of providing the required technical expertise, as well as EPO seconded staff, to national offices for a limited period of time. On the basis of international best practices, the EPO will also launch a second national expert programme to allow national experts to take part in the EPO's activities for short periods of time.

In order to achieve more cost-efficient and on-time deliverables in its co-operation activities the Office will introduce a project-management approach that clearly identifies expected results, timelines and costs. This approach will be extended to the IP5 and trilateral projects and activities. With regard to ongoing IP5 projects, the Office will strive to streamline the number of projects and initiatives, increase the number of virtual meetings and, where appropriate in the framework of the IP5, promote the revision of the governance and structure of working groups and further empower the role of industry through the Industry Consultation Group (ICG).

In developing its co-operation activities the Office will also favour a regional approach. Whilst expanding its co-operation activities, the Office will make use of future and ongoing co-operation initiatives, seeking synergies with WIPO, ARIPO, EAPO, OAPI and member states.

Finally, the Office will consider the feasibility of bringing the EPO, the EUIPO, member states and stakeholders together under the same co-operation platform. This could be made possible through multilateral co-operation plans with national offices, which could include multidisciplinary co-operation working groups and a joint academy training catalogue in the future.

The Office already has a well-established co-operation with the EUIPO and Community Plant Variety Office (CPVO), but it currently lacks a comprehensive framework for co-operation with the EU Commission. The Office will therefore propose a broad co-operation programme to the Commission that will include regular meetings at both the political and technical level. By doing so, the EPO will be able to offer input on regulatory and non-regulatory initiatives. As part of this co-operation, the Office plans to work with the Commission to organise European SME days to raise awareness. Furthermore, and together with its EU partners, it will explore the possibility of offering a single point of access to information on IP rights made available by the Commission, the EUIPO, the CPVO and by national offices.

Key Initiative 4:
Define and prioritise co-operation activities

In close consultation with the member states a new catalogue of co-operation projects will be developed. The catalogue will comprise ongoing and new initiatives.

The catalogue will be organised around four pillars to create a European patent network: IT infrastructure based on simplified processes and procedures; co-operation projects to enhance knowledge and quality; co-operation projects aimed at work-sharing; and co-operation projects to promote the convergence of practices by patent offices. To maximise the impact of the EPN, the EPO and member states will work closely together to define a common quality management policy, fostering exchanges of experience and knowledge transfer.

The co-operation activities relating to IT will address both front- and back-office tools. Taking into account failed attempts to create shared IT tools in the past, the Office will favour:

– a programme of convergence and simplified processes and procedures;

– a modular and gradual approach;

– a minimal viable product approach coupled with an incremental cycle of improvements. *(Goal 2)*

Pilot offices will be selected on the principle of diversity. Working groups will then be organised to map simplified and harmonised processes that will be used to develop IT tools. The successful implementation will be gradually expanded to all interested patent offices. A national portal for managing renewal fees for granted European patents might also be considered.

A convergence programme of administrative practice will be launched to reduce the costs for users when interacting with multiple European patent administrations. This programme will be developed on the basis of best practices, following a broad consultation with member states and users. In selecting the working groups a careful balance will be struck between the need for adequate representation of NPOs and users and the operational efficiency required to secure results. The programme will be voluntary and will aim to reach consensus expressed through common communications on procedural or substantive patent law issues following the proper consultation and agreement of the EPO's governing bodies.

The principles and modalities of this new co-operation policy are exposed in a concept paper, which received very broad support from the EPO's member states at a meeting held in Kilkenny on 13 and 14 May 2019. *(see Annex)*

The co-operation activities devised to increase knowledge in core and soft skills will be developed through the EPO's Patent Academy. A yearly consultation with member states will be launched to ensure that the Office can meet the needs identified. The consultation will be organised around thematic areas ranging from search, tools, EQE and technology transfer matters to language, data protection and quality.

The sharing of work and tools will also be addressed in the co-operation activities. Discussions will focus on EPOQUE and Ansera functionalities and data. CPC work-sharing will also be tackled, as well as search agreements between the EPO and member states, whereby national applicants would benefit from receiving the EPO's search report and written opinion at a lower cost. The search agreement policy will be revised and made more attractive to the EPO's member states. At the same time, the EPO could further support the promotion, search and technology transfer activities of NPOs through a second-generation Pan-European Seal programme. *(Goal 1)*

The attractiveness of the European system is based both on the quality of the products and services delivered and on its geographic coverage.

The geographic coverage of the EPO's search, written opinions and examination extends not only to the member states, but also to the countries that benefit from an extension agreement (European) or a validation agreement (non-European). Through a single high-quality search and examination procedure, inventions can now be protected with patents obtained from the EPO in 44 countries. It is therefore of strategic interest that the EPO expand its coverage, through agreements, partnerships, technical co-operation and, importantly, by exporting converged European quality standards.

The EPO will therefore implement and reinforce a new framework based on three possible models of co-operation: validation agreements, reinforced partnership agreements and technical co-operation.

The EPO will actively promote the validation agreements as the most advanced and strategic form of co-operation with non-member states. The national patent offices of the validation states and the EPO will co-operate on terms close to that of EPO member states. Validation countries will be the first choice when pursuing international bilateral co-operation.

Through reinforced partnership agreements the Office will seek to increase efficiency primarily by avoiding duplication of work by the partner office through the reuse of EPO results. The reuse of results will also contribute to higher-quality patents and will release capacity in the partner office to support their innovation system. For both reinforced partnership agreements and validation agreements, the EPO will continue to promote a regional approach as well as initiatives aimed at reusing search and examination work.

Key Initiative 5:
Broaden the European patent system and network impact

Technical co-operation will aim to strengthen the EPO's patent data coverage through the quality- at-source initiative; extend the PPH network to foster reuse of search and examination work; and expand the use of Cooperative Patent Classification (CPC) worldwide. With regard to the CPC specifically, envisaged actions will include the continuous monitoring and improvement of the quality of classification performed by participating offices. This will include the organisation of training events and distance-learning courses.

The results achieved in the ongoing IP5 collaborative search and examination pilot will be assessed in order to evaluate the feasibility of rolling out this EPO-led initiative further. Global Dossier, the IP5 flagship work-sharing project, will be enhanced by creating new functionalities and by expanding the coverage of data through an extended link with WIPO CASE.

At the same time, the Office will strive to achieve further harmonisation and convergence of practices within the IP5. The Office will identify remaining divergent practices in procedural and substantive patent law, taking into account previous results achieved at the IP5 and trilateral level. The Office will continue to work closely with and support trilateral industry in its efforts to achieve an acceptable solution for all parties on the five priorities it identified for substantive patent law harmonisation. In the strategic areas of computer-implemented inventions (CII) and biotechnology-related inventions, comparative studies will be conducted that may identify areas where practices could be harmonised to benefit users.

Looking to the future, the EPO will contribute to defining the next set of priorities for IP5's patent harmonisation expert panel, never losing sight of European industry's interests. All in all, the main objective is to promote the creation of international standards, based upon alignment achieved with the Trilateral and IP5.

Considering that bundled IP rights are used by industry, the Office will seek to promote synergies between TM5, ID5 and IP5. Ultimately, this could lead to a refounding of the TM5, D5 and IP5 under the same umbrella, whilst respecting the operational and political specificities of each IP right. Common projects and activities could be launched, bringing stronger synergies between partners and significant operational reductions in costs, time and resources.

Finally, the Office will implement and support initiatives aimed at enhancing the quality of PCT products and services. The Office will place a special focus on PCT working groups and task forces such as the WIPO task force on PCT minimum documentation. This will strengthen the requirements to be met by international authorities when performing international searches. The Office will also promote incorporating a common practice on unity of invention into the PCT guidelines based on the methodology recently agreed by the IP5 offices.

Goal 5

Secure long-term sustainability

Introduction

Engaged staff, a digital transformation, an effective patent granting process and high-impact international co-operation are the foundations on which a sustainable EPO will be built. Investments in each of these domains are necessary if the Office is to have a modern infrastructure capable of delivering the products and services necessary for a vibrant innovation sector and an effective patent system in Europe.

The EPO must secure the investments proposed in this Strategic Plan with a set of further measures that will reinforce its long-term prospects. Structures to ensure effective corporate and political governance will be strengthened. Greater transparency and accountability will contribute to the comprehensive oversight required of a public institution. Environmental and corporate social responsibility will be increased to ensure the EPO's resources are dedicated to improvements in society as a whole. Lastly, the EPO's long-term financial sustainability must be secured to guarantee its continued existence as a central pillar of the European patent system. Achieving these aims will ensure that the measures taken in the previous goals become more than the sum of their parts, and that all stakeholders will be able to depend on a strong and effective IP office for Europe for decades to come.

Governance will be strengthened at both the political and corporate level. *(Key Initiative 1)* The political governance of the European Patent Organisation is set out in the EPC in a classical scheme of separation of powers: the legislative and supervisory powers are entrusted to the Administrative Council; the judiciary powers to the Boards of Appeal; and the executive powers to the Office. It is our common responsibility to ensure that this fundamental principle of good governance is correctly understood and applied at all times.

At the corporate governance level, more can be done to increase effectiveness. To this end, the Office will translate its vision, mission and values, which have been broken down into the five strategic goals and key initiatives of the Strategic Plan, into well-organised programmes and projects. These projects will be clearly defined in an annual work programme, which will be co-ordinated by a project management office (PMO) embedded in a corporate governance service that will bring greater alignment to the implementation of the Strategic Plan. This corporate governance service's work will also help illustrate to all employees how the strategy is being translated into daily operations, and how their performance is instrumental to the Office's overall achievements. This, in turn, will foster a renewed sense of purpose and belonging.

Moving forward, we will also look at our processes and ensure that they remain efficient. We will review the way we work by mapping and adjusting our processes accordingly and bringing them into line with best standards. We will therefore become more efficient and create a culture of continuous improvement through lean management of our processes.

Our users also need to be confident that the EPO is resilient to factors that can cause interruptions in service. The EPO will therefore strengthen its capacity to repel threats to the integrity of its systems and avoid potential disruptions, by implementing an office-wide business continuity and crisis management policy based on a corporate risk register. Our financial management must also be traceable and accountable, while still empowering the relevant departments. To this end, we will also review and improve reporting on the evolution of our financial KPIs, especially the unit cost index. A multiannual and annual procurement plan will also take advantage of a more competitive purchasing environment, whilst avoiding vendor lock-in in the future. *(Key Initiative 2)*

Societal expectations of public bodies in terms of transparency and accountability have soared over the last forty years. Public authorities have a responsibility to explain not just what they are attempting to achieve, but how this is to be achieved, what progress is being made and which controls have been put in place to ensure the responsible administration of valuable public resources.

Henrik Stiesdal (Denmark), a pioneer of offshore wind power,
nominated for the European Inventor Award 2018 in the category Lifetime achievement

A transparency portal and an exception register will provide all interested parties with direct information on the functioning of the Office and with regular reporting on the outcome of our governing bodies and management meetings. Our Code of Conduct will be reviewed, along with our data protection and investigation guidelines, to ensure that they remain amongst the best in class at the international level. *(Key Initiative 3)*

As a responsible public institution, the EPO has both a responsibility and an opportunity to use its resources to generate an additional positive impact on society as a whole, on the environment and in the cities that have given a home to the EPO. It will therefore implement corporate sustainability initiatives that fulfil these responsibilities and can also help to raise the prominence of the innovation sector. At the same time, we all have a responsibility to play a part in achieving a healthier and greener environment. The EPO grants patents every day for inventions geared towards environmental protection, but it can also play a more direct role. We will therefore assess how it can take action to limit the EPO's environmental impact and aspire to reach new levels of environmental sustainability. *(Key Initiative 4)*

Ultimately, the EPO must assure its own long-term financial sustainability if it is to continue delivering the high-quality products and services that are required by its users. One of the strengths of the Office is its status as a self-funded organisation, which allows it to plan effectively for the future, using both internal and external expertise. Together with a general sustainability report, this comprehensive financial assessment of its potential long-term financial scenarios will ensure that the EPO is better placed to master its destiny and further support a vibrant European patent system. *(Key Initiative 5)*

Lastly, the EPO needs to be alert to – and properly understand – changes in the patent landscape if it is to constantly evolve and ensure its effectiveness and sustainability in the future. While the Strategic Plan is geared towards the EPO's sustainability, its assessment of patent data and patent information in recent years has already revealed that changes in technology and in the patent system itself can take place frequently and quickly. An example of rapid change is the advent of the Fourth Industrial Revolution (4IR), which has led to a sudden rise in patent applications for 4IR technologies, which even have the potential to significantly impact the patent granting process itself.

Steep rise of 4IR applications at the EPO

Year	Applications
2000	938
2001	1 254
2002	1 446
2003	1 512
2004	1 772
2005	1 820
2006	1 966
2007	2 090
2008	2 290
2009	2 311
2010	3 113
2011	2 972
2012	3 448
2013	3 762
2014	4 784
2015	5 793
2016	6 320
2017	6 944
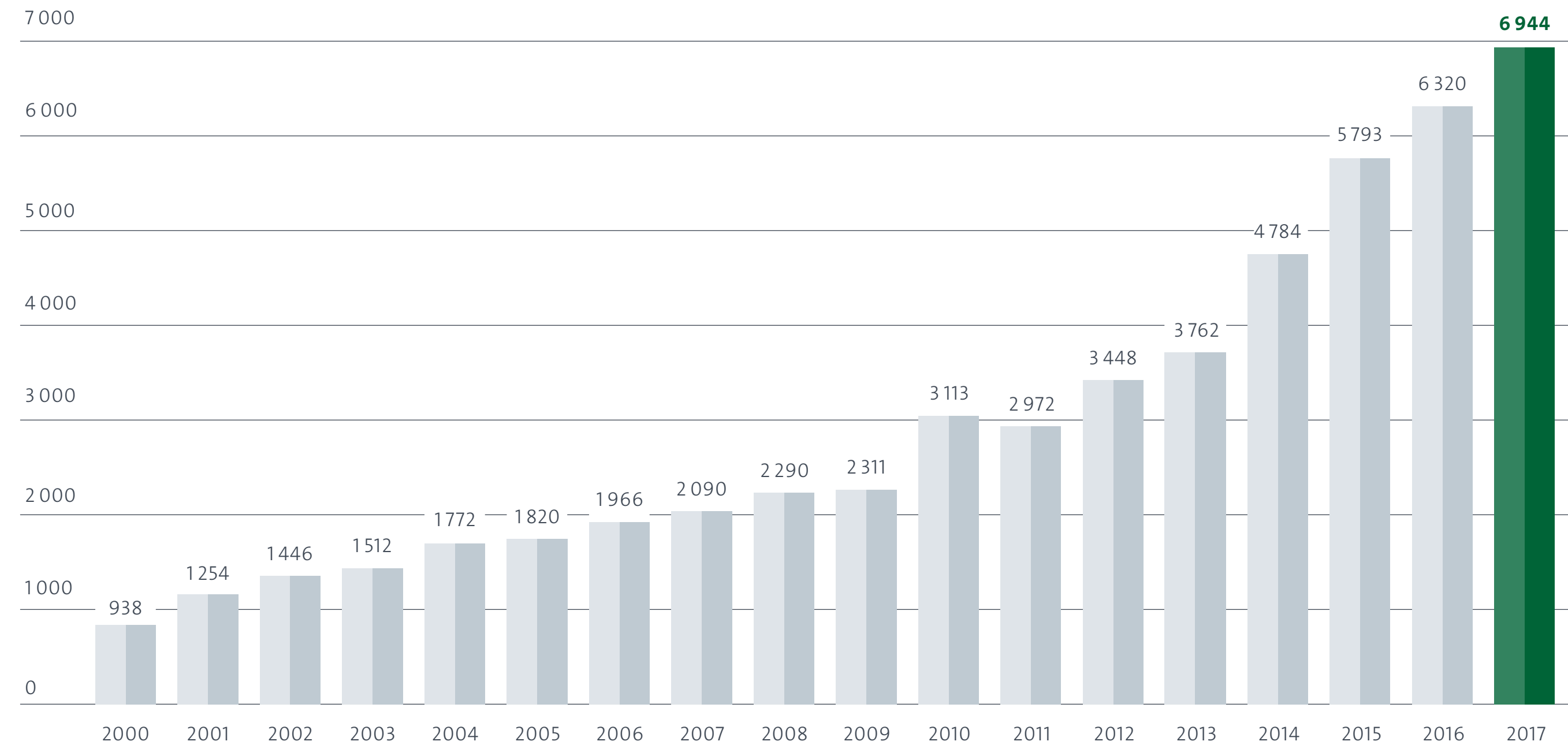
To monitor such changes, the EPO will create an observatory in Munich in close co-operation with all stakeholders. The observatory will equip the EPO and a broader range of stakeholders in its network with an up-to-date understanding and expert insights into evolutions in the innovation sector and patent landscape. Armed with this knowledge, the EPO and its partners will be better placed to respond effectively to ongoing developments, to anticipate changes in the future and to take measures that will ensure its sustainability and that of the patent system long into the future. *(Key Initiative 6)*

Key Initiative 1:
Strengthen governance

Well-functioning political governance is paramount to the European Patent Organisation and to its independence as an international organisation. The Office acknowledges the need to support the Administrative Council in fulfilling its legislative and supervisory functions.

On complex and sensitive issues, it will not present a single option for approval, but a set of possible options, each of which will be subject to an impact assessment based on institutional best practices and external advice if necessary. Additional external advice will be sought when requested and necessary in close co-operation between the Chair of the Administrative Council and the President of the Office. Furthermore, the Council Secretariat will be located in and supported by the Directorate-General in charge of legal and international affairs, in line with best practices. A MoU between the Chair of the Administrative Council and the President of the Office could define the modalities of how the Council Secretariat functions.

The Boards of Appeal (BoA), including the Enlarged Board of Appeal, have final jurisdiction under the EPC. Due to their high degree of specialisation, their case law contributes to decisions in national courts and often shapes legal discussions within and outside Europe. In recent years the EPO has striven to reinforce the efficiency and perception of independence of the Boards of Appeal (BoA). After two unsuccessful attempts in 1995 and 2004, the Organisation succeeded in adopting a structural reform of the BoA within the existing framework of the EPC in 2016. The reform covered several important aspects. For example, in order to strengthen the organisational autonomy of the BoA as an independent judiciary, powers were delegated from the President of the EPO to a newly created President of the BoA. Furthermore, a specialised sub-committee composed of experienced national judges was created to support the monitoring of the efficiency and independence of the BoA.

Under the new President of the BoA, a wide range of measures were adopted to bring the reform to life. In particular, a comprehensive performance evaluation system for members and chairpersons was set up and a thorough revision of the Rules of Procedure of the BoA is underway. Greater organisational autonomy of the BoA could be envisaged, for example through a memorandum of understanding between the President of the Office and the President of the BoA on the modalities of service support provided by the Office to the BoA.

At the corporate level, a sustainable organisation in pursuit of excellence has to be able to translate its vision, mission and values into strategic goals and key initiatives and then into daily operational activities. It is essential that staff achieve an understanding of how their actions, energy and performance impact the long-term results of their organisation.

On the basis of the Strategic Plan and its strategic goals, the Office will therefore draw up an annual work plan, including an annual staffing plan and budget, which will be submitted to the Administrative Council. The Office's activities reports will subsequently be based on this annual work plan, ensuring the alignment of strategic and operational activities.

Implementing all the activities detailed in the plan calls for an orchestrated approach via a corporate governance function that integrates performance, quality, as well as risk and benefit. To turn its strategic approach into an operational reality, the EPO intends to establish a project management office (PMO) embedded in the corporate governance service (CGS) that will co-ordinate the implementation of the Strategic Plan. It will introduce and manage change in an orderly manner by using project management processes, and it will be vital for facilitating the implementation of the Strategic Plan alongside the Office's day-to-day activities. The CGS/PMO will ultimately bring different areas of the organisation together to work on specific issues and harness positive synergies.

The integration and follow-up of all key performance indicators related to the implementation of the Strategic Plan will also allow for continuous monitoring. Specific strategic KPIs will be developed to support the management and the governing bodies in monitoring progress and exercising their role in directing and governing the organisation. A balanced scorecard for the Strategic Plan will also help to align the Strategic Plan measures with other operational KPIs.

Goal 5

Key Initiative 2:
Enhance process efficiency

Achieving the excellence to which the EPO aspires is a long road. In pursuing excellence we must constantly review the way we work.

Well-defined and measured processes are needed to set a baseline from which the Office can improve its performance in terms of quality and user expectations, ensure consistent outcomes throughout the Office and constantly evolve towards excellence.

As a means of achieving excellence, the Office has introduced ISO 9001 in its core business activities and now aims to extend ISO certification to all other areas of the Office. The positive experience gained from managing quality under ISO 9001 will be extended to IT, Patent Law, General Administration, Finance, HR and other central areas to be brought within the scope of ISO 9001.

ISO certification extension to all areas of the Office

Today ...

we have the **ISO 9001:2015 certification** for the **end-to-end patent process**
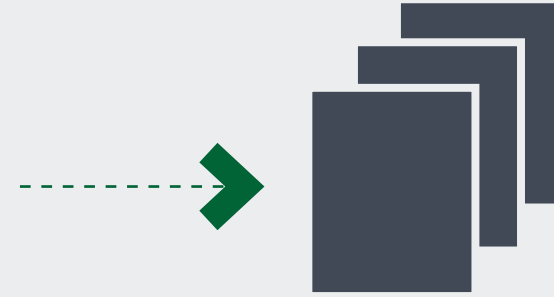
In future

we aim at **extending the ISO certification** to:

Finance | Patent Law

IT | Human Resources

General Administration

In parallel, the Office will assess the effectiveness of applying other ISO standards such as ISO 30401 to knowledge management,[1] to provide a holistic management culture that is fully aligned with the best practices of EU public internal control systems. Internal governance, which is currently fragmented between ISO9001 and EMAS, will be brought together in an integrated management system, promoting a culture of continuous improvement. This integrated management system will ensure that the Office administration remains lean and effective.

In order to identify its risk of exposure to internal and external threats, the Office will implement an office-wide business continuity management system (BCMS) based on a risk-driven business continuity policy. Covering all business units, the BCMS will ensure that the EPO can respond effectively to threats and disruptions and safeguard the delivery of the Office's functions. In addition, it will reinforce the Office's reputation as a secure and stable organisation that is resilient to external threats. Procedures for exercising, maintaining, and reviewing the plans will be developed, and measures such as awareness campaigns will be implemented to ensure that BCMS is embedded in EPO culture. A corporate risk register will ensure that corporate risks get the desired level of management attention.

[1] Under consideration are business continuity management (ISO 22301), risk management (ISO 31000), organisational resilience (ISO 22316), information security (ISO 27001), facility management (ISO 41001), occupational health and safety (ISO 45001) and complaint management (ISO 10002).

Evolution of the overall unit cost index

Chart legend:
- Unit cost index - non-inflation adjusted
- Unit cost index - inflation adjusted

Data labels: 100.0% (2006), 94.8% (2014), 85.8% (2015), 79.5% (2016), 77.2% (2017), 75.5% (2018)

As the EPO is a public and self-funded institution, the sound management of its finances is imperative. It will take measures to promote a culture of responsibility and accountability throughout the organisation. Specifically, a more decentralised approach will empower operational managers at all levels of the organisation to follow up the budget more closely. The budget will be structured according to operational area (DG, PD, etc.), as well as financial KPIs such as the well-established unit cost index. These improvements are expected to trigger some adjustments to the current financial regulations, and specifically to eliminate outdated provisions from the time of the Office's founding.

The cost and revenue bases will be aligned, giving a simplified and more relevant interpretation of the EPO's financial situation. This will also provide an opportunity to review the method used to calculate the unit cost index, with a view to reflecting the current and expected products more clearly, while also introducing reporting on a more frequent, quarterly basis. Dedicated KPIs will also be considered for the financial monitoring of specific activities such as co-operation and the European Patent Academy.

The Office will develop multiannual and annual procurement plans to better plan and execute all of its significant purchases. This will incorporate greater use of public tender processes in line with standard public-sector practices. A more competitive purchasing environment will avoid vendor lock-in in the future.

Key Initiative 3:
Improve transparency and accountability

One of the most effective ways for the Office to ensure its accountability to its stakeholders is by becoming more transparent. As it develops its external communications to provide essential information to different external audiences, the Office will implement a documentation policy to facilitate public access to documents through a user-friendly transparency portal.

An exception register will also be created to help identify issues where the appropriate requirements have not been met in the area of finance and procurement. This will ensure that corrective measures can be taken to avoid such instances in the future, through training or improvement of the regulatory framework.

The Office will report regularly on its activities to its governing bodies and committees, including the Patent Law Committee and the Technical and Operational Support Committee.

The current database (MICADO), in which relevant documentation is made available to the Administrative Council, will be enhanced to ensure better usability, efficient communication and smoother decision-making. A feasibility study will also consider whether it could also become a central hub for co-operation projects.

Goal 5

In recent years, reliable and secure data protection policies, combined with effective cybersecurity measures, have become increasingly important as the number of threats and attacks have grown. To ensure that personal data is always secure, it is important to know what data is being processed, why it is being processed and on what grounds. The Office will continue to look at best practices and EU benchmarks in particular, with a view to raising the standards of its long-standing data protection policies and to giving users greater confidence in the integrity of its data protection policies and capabilities. Periodic audits will ensure compliance at all times, build trust, and raise awareness of data protection issues among the Office's stakeholders. The internal investigation regulations will also be reviewed to ensure that they remain fit for purpose, particularly in terms of the right to be heard, the right to be informed and data protection.

The Office will update its Code of Conduct to provide staff and management with a practical guide on how core values can become a part of what we do every day. In order to foster awareness on issues relating to ethics, compliance, and integrity, the Office will align its compliance management with international best practice. A zero-tolerance policy will be introduced on matters of fraud and dishonesty to promote an anti-fraud culture.
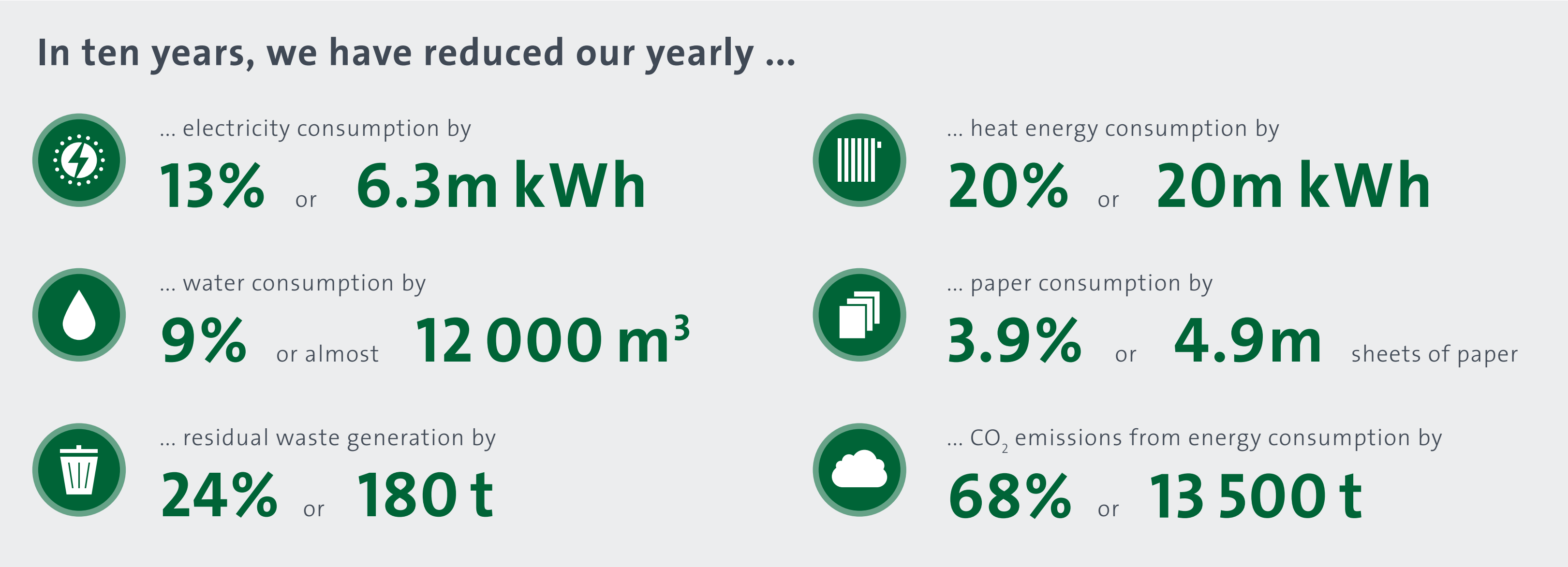
Key Initiative 4:
Spread a culture of corporate sustainability

Environmental and social issues are cornerstones for an organisation that aims to operate based on the principle of responsible sustainability. An effective corporate sustainability policy can help the EPO to fulfil its role as a responsible public institution by utilising its resources to generate benefits for local citizens and society as a whole. Such policies also attract new talents and generate a sense of pride and belonging among staff. For these reasons, the EPO will embed environmental and sustainability actions in its Strategic Plan.

Clear and ambitious office-wide targets will be agreed to ensure the EPO minimises its impact on the environment. The Office will continue to apply rigorous environmental auditing through the Eco-Management and Audit Scheme, which provides an effective framework for assessing, managing and continuously improving the environmental performance of the Office. There will be defined objectives for its carbon footprint, energy consumption, paper consumption, plastic elimination, and CO_2 emissions from air travel. Specific measures directly contributing to achieving these targets will be taken and complemented by awareness campaigns across the Office. In this regard, particular attention will be paid to assessing how the Office can make a greater contribution to the long-term environmental goals of the Paris Agreement 2015. All of our buildings, whether they are new, renovated or refurbished, will apply the highest standards of sustainability to minimise their environmental impact. For new buildings, best-in-class environmental certification will be the benchmark.

In ten years, we have reduced our yearly …

… electricity consumption by

13% or **6.3m kWh**

… heat energy consumption by

20% or **20m kWh**

… water consumption by

9% or almost **12 000 m³**

… paper consumption by

3.9% or **4.9m** sheets of paper

… residual waste generation by

24% or **180 t**

… CO_2 emissions from energy consumption by

68% or **13 500 t**

Environmental sustainability will also be fostered by the EPO through green procurement of goods and services from external providers. Moreover, the EPO will integrate more SME-friendly measures such as facilitating access to information or simplifying the required documentation for bids.

New Main sustainability features

Solar panels on the roof are a source of renewable energy

16 000 LED light features save approximately 430 000 kilowatt hrs/year

Smart ventilation and climate system channel air from the cavity between the glass façades

Aquifer thermal energy storage (ATES) will reduce primary energy consumption and related CO_2 emissions

300 plant varieties covering some 2 300 m^2

Recyling (90%) of the materials from the demolished tower building will be reconditioned and recycled for projects such as road embankments around the Netherlands.

The EPO will develop local partnerships to better integrate with the local community, including local authorities and universities, NGOs and cultural and sport associations. Sport and cultural events and actions will be promoted to support awareness campaigns on topics related to innovation and creativity, and staff participation will be encouraged. Regular internal workshops and promotion campaigns will be held to raise awareness of all corporate sustainability initiatives to maximise their impact and achieve greater staff participation. These actions will be conducted, where possible, in close co-ordination with the EPO's Amicale network.

A network made up of the former nominees and winners of the European Inventor Award will be supported to foster interest in innovation and creativity, particularly among European pupils, who will be tomorrow's generation of inventors. A feasibility study on creating a similar award for students will be carried out.

Key Initiative 5:
Ensure long-term financial sustainability

Long-term financial sustainability is a precondition for the existence of a self-funded organisation like the EPO. Only by remaining a self-financed entity can the EPO develop its activities, invest continuously in improving its tools and services offered to users, reinforce trust among its stakeholders in its sound management, and guarantee the financing of a social package that is sufficiently attractive for its highly educated staff. In short, the EPO must firmly control its financial sustainability if it is to master its future and support an effective European patent system.

Just a few years after it started its operations, the EPO was able to finance itself without any support from the member states. Its successful development over successive decades led to the generation of sufficient financial resources with which to fund its operations, projects and social expenses. However, new, more rigorous accounting standards adopted in the mid-2000s revealed a high risk that it might not be able to finance all of its long-term liabilities, especially its pension obligations.

A first external financial study published in 2011 came to the clear conclusion that the Office would face some serious financial challenges in the future if a number of negative trends were not reversed. During the following years, the Office's management and staff succeeded in implementing a comprehensive programme of reforms to address structural deficiencies, rigid cost increases and the development of a negative equity among other things. The results were subject to a second external financial study in 2016, which assessed the Office's progress and confirmed that it had managed to deliver more positive financial results than those initially suggested in the 2011 study. Furthermore, the Office had generated regular, important cash surpluses. In particular, it has managed to inject over EUR 1 billion into its pension reserve fund for EPO employees in recent years.

Development of RFPSS assets since inception (1984)

Development of RFPSS net assets in EUR m (1984 - 3/2019)

Accumulated contributions   Management result RFPSS
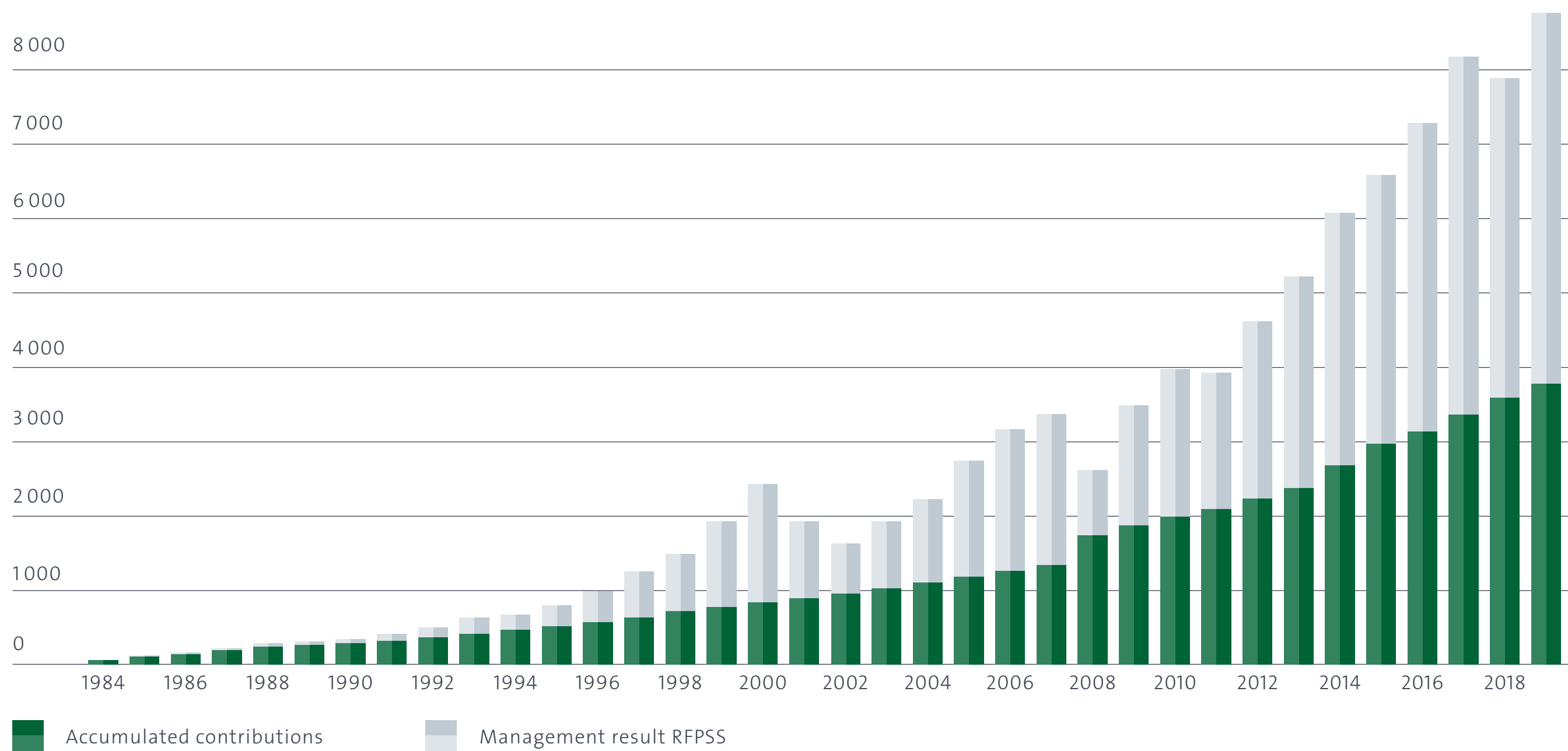
In a fast-evolving financial environment, the management of the Office must – and is continuing to – prioritise the regular assessment and monitoring of the evolution of its cost coverage and its capacity to self-finance its operations and future liabilities. In 2019 a new financial study was commissioned and published to provide all stakeholders with an assessment of the long-term financial sustainability of the Office on the basis of its anticipated business challenges, equity, long-term liabilities, evolving costs and potential threats to revenues. This independent view of the next 20 years constitutes an opportunity for all stakeholders of the European patent system to take stock and contribute to its future development.

The detailed results of the study have been clearly communicated to all concerned. The EPO's senior management, staff and staff representatives as well as the Administrative Council and its member states have been briefed comprehensively on the methodology, the financial scenarios used and the conclusions reached by the consultant:

Goal 5

− Pension payments will triple by 2038 and benefit liabilities will not be completely covered by cash reserves in 2038. Additional contributions of between EUR 1.6bn - EUR 4.8bn (in real terms) will be required to have sufficiently high funding levels, in addition to reserves that have already been put aside.

− There is a significant benefit funding gap to be closed. The benefit funding gap between required and available assets to cover all future and accrued benefit payments from 2038 onwards is between between EUR 3.8bn - EUR 8.3bn (in real terms), depending on the scenario.

− The EPO cannot rely on its operating cash flow to close the benefit funding gap. Costs are increasing faster than revenues, leading in the future to significantly decreasing cash flows.

− A time-limited window of opportunity to act is open now while the EPO's cash flow is still sufficiently high. The probability that asset returns can fully cover future and accrued benefits payments is 40% – this could be increased to a 66% probability by applying a more prudent discount rate to funding valuation.

− The EPO has greater control to manage its long-term cost structure than its revenue. There is little room for manoeuvre through driving increased revenue, which is influenced by stakeholders such as the member states. The EPO has greater control of cost levers, which presents an opportunity to better meet its future obligations through careful cost management.

− The EPO has a range of potential measures to address the financial challenge. Suitable measures are required to reduce the benefit funding gap, increase the available cash surplus or deliver on a combination of both.

With the aim of securing its financial future, the Office is involving all stakeholders in a global discussion based on the facts and recommendations of the financial study. A series of widely-representative focus groups with a representative composition of staff members has been set up and meetings have commenced to evaluate the recommendations and contribute to possible actions for our long-term financial sustainability.

By involving a broad spectrum of stakeholders, we will ensure that every action required fulfils a number of criteria. Firstly, any proposed measures will be transparent, with a full explanation as to what is to be carried out and why. Secondly, they will be proportionate and fair, responding with the right level of action for the outcome required. Thirdly, the measures will be based on the principle of shared effort; and fourthly, the measures will be implemented gradually wherever possible. Furthermore, any proposals tabled to the Administrative Council will include provisions, such as transitory measures, that give EPO staff members sufficient time to make well-informed and timely decisions.

The findings of the study can be condensed into six key messages

1 Pension payments will triple by 2038 and benefits are not completely covered by cash reserves

2 There is a significant benefit funding gap to be closed

3 With key parameters not changed, the operation will experience a gradual reduction in cash

4 A time-limited window of opportunity to act is open now

5 The EPO has greater control to manage its long-term cost structure than its revenues

6 The EPO has a range of potential measures to address the financial challenge

Goal 5

Key Initiative 6:
Measure, evaluate and assess developments in the IP system with stakeholder involvement

In recent years stakeholders throughout the European patent system have called for an evidence-based approach to measuring the impact of IP.

Studies have been produced and co-produced by the EPO in the past to accurately evaluate the impact of IP on economic growth, including exports and employment, and the different ways in which IP is used by the various players such as universities or small and medium-sized enterprises.

Such reports have been welcomed by a range of stakeholders. The studies have enabled policymakers to understand how measures can be taken to better support the effective use of IP, while SMEs and other enterprises have gained a better understanding of how to maximise the benefits of a patent portfolio. The EPO itself has benefited from a greater understanding of ongoing developments that have helped it to develop new capabilities, processes and projects. However, to ensure that the analyses and reports assess the full extent of developments in the European patent system and innovation sector, the views and input of a wider range of stakeholders are needed.
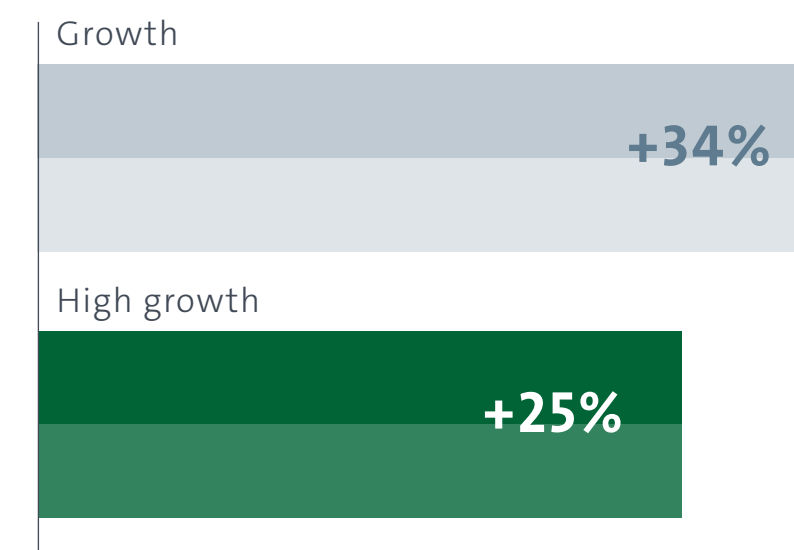
Recent EPO studies
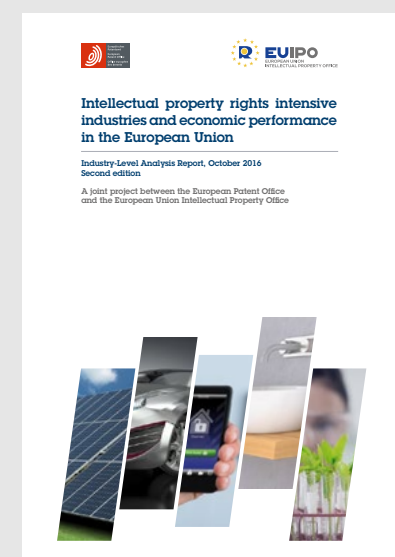
High-growth firms and intellectual property rights: the IPR profile of high-potential SMEs in Europe

EPO and EUIPO study, May 2019

SMEs with a European patent are more likely to experience high growth

Growth

+34%

High growth

+25%

The prior filing of a European patent performs best as a predictor of high growth in the high-tech and low-tech industries

Low tech

+172%

High tech

+110%
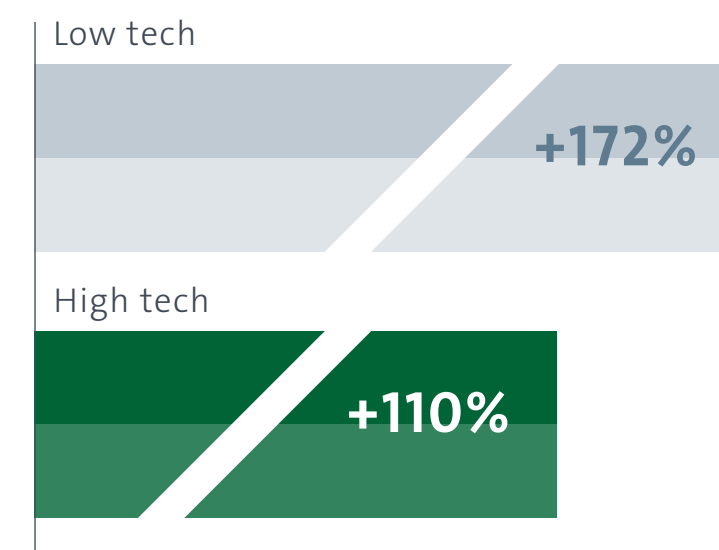
SMEs that combine patents with other IPRs are more likely to achieve high growth

+7%

Patents

+16%

Patents and
trade marks

+33%

Patents, trade
marks and designs

To address these needs the EPO will create an observatory serving as an inclusive platform that brings together public and private stakeholders from across civil society to discuss and debate developments in innovation and patents.

The observatory will also be tasked with measuring, evaluating and assessing developments in the IP system. It will provide a deeper, more accurate understanding of new IP trends and technologies in order to better equip all stakeholders and policymakers to take decisions that maximise the positive impact of the patent system on the innovation sector and society as a whole.

The observatory will answer the need for more and better co-ordinated empirical analyses, reports and studies needed to give a range of stakeholders an accurate assessment of the current IP system. This has become increasingly important in the light of developments like the significant increase in patent filings around the world since the beginning of the 21st Century, and the fourth industrial revolution (4IR). The impact of 4IR technologies on IP itself needs to be understood, as do the impediments to the commercialisation of IP rights.

Other pressings topics that affect our society, such as biotechnology, standardisation and clean technologies, should be addressed by the observatory too. It will also play a role as a stakeholder consultation platform for new products and services being considered by the EPO. It will also co-operate with similar structures and organisations to create synergies and avoid the duplication of work.

The observatory will operate as the European Patent Network platform for economic and technology analyses, supporting the activities of NPOs and of European and international agencies and organisations operating in this field, to avoid the duplication of effort and to harness synergies. Within the observatory, groups and platforms for holding discussions and consultations with member states and user associations will be set up based on best practices and with the aim of placing users and other stakeholders at the forefront of the debate over developments in IP.

Overall, the EPO observatory will also create a deeper, more comprehensive understanding of important issues that will help the EPO, the EPN and others to understand developments and prepare for future challenges. In doing so, it will contribute to ensuring the sustainability of the EPO and the patent system.

Annex 1

Summary of stakeholder input
for the Strategic Plan

Direct feedback from staff

The categories below reflect commonly recurring themes in the feedback given by staff members in one-to-one meetings with the President, written contributions following those meetings and comments sent to a specific mailbox for staff.

IT – Concerns were expressed by staff members that the IT tools currently deployed at the EPO are not meeting their needs. Two common points raised were that the IT environment is too complex and comprises multiple tools. Furthermore, the tools themselves do not meet staff needs or help them to ensure an efficient patent granting process.

AI – Many staff members suggested AI should play a greater role and help increase efficiency particularly in search activities. Staff views seem to largely correspond with the findings of the IT audit carried out recently by Boston Consulting Group and published at the end of January 2019.

Quality – The topic of quality was raised by many staff members, particularly those working in the core business. Concerns were expressed that efforts to increase production may be having an undue effect on the quality of processes and products. The current points system has also been cited by some as having the potential to impact quality in the patent granting process. A better definition of quality was also requested.

Working arrangements – Input often focused on practical aspects of how the EPO's workforce operates. Some expressed the need for greater flexibility in working arrangements, ranging from secure access from multiple locations to the EPO's network, through to part-time working hours. In particular, some employees cited flexible working options that help parents to achieve a better work-life balance and manage their careers as a necessary measure. New and innovative ideas were also provided such as new models for ergonomic workstations and quicker access to buildings at the weekends and after hours. Some staff members raised concerns about the potential introduction of open-plan workspaces.

Rewards – As part of an integral aspect of the new career system, some staff members asked for clarity over how rewards are allocated and performance management. There were requests for effective recognition of part-time staff, and to ensure that the new career system is orientated towards staff development. Some employees highlighted the need to make training more effective and to empower staff so that managers can take confident, timely decisions.

Workplace atmosphere – Some staff members complained of a negative atmosphere in the workplace. A perceived lack of trust between staff and management, a need for better internal communications, a lack of decision-making powers at some levels, production pressure and a perceived lack of respect were identified by some as contributing to a poor workplace atmosphere. Staff feedback highlighted the need for recognition of the benefits of greater diversity and its positive impact on quality of work and a healthy working climate.

Staff survey

A total of 5 675 EPO staff members participated in the survey by Willis Towers Watson, representing a participation rate of 85%, which is 5% higher than the professional services benchmark. Staff also provided 11 454 open comments. Overall, the organisation achieved an engagement score of 63%, which was 15% lower than the European norm and 16% below the norm for professional services.

Views on remuneration and well-being are positive compared to external benchmarks and staff recognise that their pay and benefits are competitive. Views are also positive on issues impacting staff well-being (e.g. work schedule flexibility, workload/staffing, manager care for staff well-being).

In all other categories, however, the results are below external benchmarks. Views are furthest below benchmarks on aspects of management effectiveness, with low confidence in senior management decisions, a lack of clarity over direction and insufficient contact between senior management and staff. Concerns are high about the Office's commitment to quality, and about its reputation and service focus. The majority of staff have the autonomy to do their work, but far fewer think it is safe to speak up or feel encouraged to contribute new ideas. The survey provider deduced that there is little evidence of a "continuous improvement culture" in the Office.

The EPO faces major engagement challenges. Only two thirds of staff say that they are proud to work at the Office, and four in ten report that they face substantial obstacles to doing their job well. Opportunity for personal development is the strongest driver of engagement at the EPO.

Staff representation

A range of input was provided by staff representatives on subjects relevant to the Strategic Plan. It covered several key areas including, but not limited to, the subjects below:

Long-term sustainability – Staff representatives stressed their goal to re-establish both the reputation of the EPO as an attractive employer and as a patent granting authority that reliably and consistently delivers patents with a high presumption of validity. They underlined that doing so would allow the Office to achieve comprehensive long-term sustainability, not only financially, but also with regard to the human component. They submitted a list of barriers to such long-term financial sustainability, including an inability to recruit the best-qualified staff, a real or perceived decrease in quality, and a negative working atmosphere. The Pensioners Association also asked to be given an active role in dialogue should any of the facts or recommendations of the financial study also touch upon the rights and obligations of present and/or future pensioners.

Convergence with the framework of EU institutions – The Office was encouraged to examine best practice in EU institutions and to avoid copying measures selectively. Similarly, the Office was encouraged to address the issue of balance between member states by looking at the EU model of taxation and pensions.

Human resources – The Office was encouraged to ensure that DG 1 and other operational areas are able to define what they require to function properly and that DG 4 should only provide support and advice.

Production demands – Staff representatives asked for production demands to be set at realistic, achievable and sustainable levels, which would allow the achievement of the required level of quality.

Diversity – The Office was encouraged to implement an effective policy on gender diversity. This issue should also be addressed by striving for diversity in recruitment.

Past reforms – Input from staff representatives indicated that a number of recent reforms had shown some undesirable effects and required improvement. They suggested that these reforms should be reviewed to re-establish trust and decrease the litigation volume.

Financial means – Staff representatives asserted that EPO fees should be regularly revised in line with inflation. They underlined that host countries will have to make financial sacrifices in order to re-establish the balance between member states required in an international organisation.

Social democracy – Staff representatives requested the means to operate properly. The framework under which they operate ("social democracy") needs to be functionally restructured before the next elections, which are due to take place in June 2020.

Buildings – Concerns were raised as to whether open work spaces would be compatible with the type of work done in all parts of the EPO, and especially the work done in Vienna. SUEPO Vienna specifically underlined that the lack of confidentiality implied by open work spaces is very negatively perceived, that the New Main building should be thoroughly evaluated before any measures are taken; and that potentially impacted staff at all sites should subsequently be consulted before any such changes are implemented office-wide.

Member states

Almost all member states (34 out of 36 responses) provided feedback on co-operation amongst the stakeholders of the European patent system and with partners outside Europe. They recommended a proactive approach to communication, and particularly expressed their desire for increased co-ordination of activities with member states and a broader dialogue with all stakeholders, including civil society.

Innovation support is also proposed to promote the development of the PATLIB network, in synergy with other innovation support networks. The EPO should lead the evolution of patent practice in areas of key technology advances and continue to offer institutional training including examination, EQE and language training. A revision of the co-operation framework was proposed, encompassing favourable financial conditions and expert support, in addition to the continuation of existing co-operation activities.

An overwhelming majority of member states (31 responses) and user associations gave recommendations on patent-related IT tools. They believe that IT services can bring benefits to the EPO, but also to national patent offices and users. In the area of automation, a great deal of interest was expressed in further support and improvements to existing IT tools and services, from the examiner's tools to patent information services and on-going activities such as the back-file conversion. The demand for new IT solutions includes the development of a back-office and front-office, and the standardisation of the communication and data exchange between offices in the European Patent Network.

The high quality of EPO products is an important topic for member states. Almost three quarters of them commented on quality: the EPO should strive to improve the quality of the patent granting process and of the grants across the European Patent Network, and co-ordinate with more member states on quality matters.

Member states and user associations also addressed other relevant areas, submitting recommendations that highlighted the importance of maintaining the EPO's attractiveness as an employer, the Office's ability to attract and retain a highly-skilled workforce and the necessity of ensuring the long-term sustainability of the Organisation, supported by well-prepared and well-informed meetings of the governing bodies of the Administrative Council.

Strategy consultation with the non-member states (NMS), international organisations (IO), and user associations (UA)

On HR-related matters, international partners and user associations advise the EPO to focus on talent development by promoting gender balance, identifying internal talent and undertaking a comprehensive review of talent management policies. Strengthening internal communication and information sharing via collaborative or project-management spaces was also seen as crucial, along with fostering social dialogue.

In terms of IT systems, many user associations expressed their support for developing tools that are easy to use and accessible. User associations' contributions highlighted the need to improve IT security. Strong emphasis was also put on implementing tools, co-operation solutions and practices with other IP offices. Co-operation in quality and the free flow of digital patent data worldwide should focus on new technologies (AI-enabled tools) and the creation of common interfaces allowing access to global databases (IP View) as ways of significantly improving efficiency in the management of IP assets. They stressed the importance of an inter-institutional partnership with WIPO on search tools, data exchange platforms, online filing for all IP rights and common interfaces for accessing global databases (IP View) and creation of a "Global IP Register".

As for the patent granting process, user associations expressed their willingness and readiness to intensify co-operation with the Office and to provide their full support for the overall aim of maintaining the high quality standards of the EPO's products and services and further enhancing them in the most efficient manner possible. Concrete proposals were put forward to engage users in the Office's quality management process. User associations also emphasised the impact of 4th Industry Revolution technologies on the Office's practices and operations. User associations suggested that the Office should develop innovative products and services too.

User associations see a need to reduce the pendency of EP applications, make grant proceedings less complex and more flexible, increase flexibility in the grant proceedings, strike a balance between the time and cost of patent prosecution and quality and pay more attention to users' needs. They proposed streamlining the appeal procedures to make them more efficient and faster, following on from successful changes to opposition procedures.

With regard to international co-operation, user associations called for stronger, more inclusive communication, including their extended representation on the EPO's bodies. User associations put an emphasis on enhanced access to patent knowledge and information and patent protection for SMEs. This could be achieved by introducing a specific fee policy (i.e. for applications relating to green technology) and by promoting the use of patent information platforms (i.e. Espacenet). Producing joint studies with the Office's partners on the value of patents, especially in areas of public interest such as climate change, public health, AI, etc., targeting both the general public and policymakers, is seen as especially valuable.

In user associations' view, the impact of the EPO's co-operation activities could be maximised by building an integrated European intellectual property ecosystem; developing new and existing co-operation activities (including enhancing staff exchanges and secondments); harmonising patent procedures; increasing the visibility of IP5 co-operation; promoting the European patent system on a worldwide basis through co-operation agreements with regional offices and countries from all over of the world; exchanging more information with other IP offices and raising patent awareness and acceptance, particularly among less experienced businesses, young engineers and scientists.

In looking to achieve the Office's sustainability, international partners emphasised the need to introduce an environmental management system that meets the requirements of the eco-management and audit scheme. Many user associations consider it important to focus on the timely publication of proposed legislative changes by the EPO's governing body that would leave sufficient scope for public consultation. The EPO should increase transparency in its measurement of examiner performance, the examination process, goals and administrative metrics, on cost allocation and fee changes and give feedback on pilot projects. International partners also proposed more comprehensive and detailed reporting on the Office's public relations activities.

Annex 2

Concept paper for co-operation activities

Annual Meeting for co-operation with Member States

13 – 14 May 2019, Kilkenny, Ireland

I. Introduction

1. The European Patent system is recognised by multiple stakeholders around the world for providing high quality products and services that support a vibrant innovation sector. Prosperous co-operation between the EPO and its Member States developed over decades has undoubtedly been a key factor in that success, strengthening both European and national systems, spreading specialist IP knowledge, and avoiding duplication of work.

2. Better coordination with other stakeholders active in Europe, such as the EU institutions, the EUIPO and WIPO, has also contributed to the provision of a more coherent offer of services covering the various IP rights. The ultimate goal of the co-operation activities is to build the most efficient and effective IP eco-system in Europe and to render the European market attractive for all kinds of innovators, including SMEs, universities and research centres. The Unitary Patent and the Unified Patent Court are also expected to play a significant role as soon as the last steps allowing their implementation are finalised.

3. At the same time, obstacles remain that inhibit the European patent system from reaching its full potential and new challenges are already materialising. Users ask for simplified procedures while maintaining very high quality. They express more and more diversified needs and request services to be developed accordingly, stopping the one-size-fits-all approach. Moreover a number of SMEs and universities in Europe maintain that the patent system is too complex and costly for them. Furthermore the increasing use of game-changing technologies, such as Artificial Intelligence (AI) and blockchain, will profoundly impact the way patent offices function and interact.

4. No single entity can alone manage these global challenges, which stand to question Europe's place in the future global innovation market. This is why in its Strategic Plan 2023 (SP2023), the EPO has identified co-operation with its Member States as a fundamental strategic objective. A fully dedicated goal *(Goal 4)* aims to build a more effective European patent system and network that can have a positive global impact.

5. However the development of future interactions with Member States and other actors is not restricted solely to co-operation activities and touches upon other important projects integrated into other Goals of SP2023, in particular *Goal 2.* They will all contribute to the general improvement of the efficiency of the European Patent Network.

6. The drafting of the SP2023 is the result of an extensive internal and external consultation process. The very high rate of participation and detailed responses from the EPO Member States illustrates their strong interest in the future direction of the EPO and its co-operation projects and has provided extremely constructive input. Users and their associations were also very active in the consultations and their feedback has been reflected in SP2023 in many Key Initiatives. It has helped the Office to propose some priorities in the different fields of action, refining means and modalities and suggesting new projects.

7. SP2023 is following an iterative process to allow many stakeholders to provide their suggestions and improve the Strategy regularly, in advance of its tabling to the Administrative Council in June. The Kilkenny meeting dedicated to future co-operation activities between the Office and the Member States is a crucial step in this process. It therefore represents the start of a common journey on the road to more effective co-operation, rather than the end point of a preparatory process.

8. To support the exchange of views during the Kilkenny meeting in the most efficient manner, the Office has developed a specific concept paper on co-operation activities. It is built on the draft SP2023 published mid-April 2019, elaborating in more detail on the basis of the inputs of the Member States and the users. To this end, the concept-paper summarises the main areas identified in the consultation which are relevant to co-operation, in particular key initiatives included under *Goals 2* and *4* in the SP2023. It proposes mechanisms for improved functioning, transparency and implementation.

9. Moreover there are a number of valuable ongoing projects and co-operation activities which should be maintained according to the wishes expressed by the Member States and this is why they are also integrated into the concept paper.

10. Furthermore the revision of the co-operation activities might lead to the adjustment of some internal structures of the EPO. For example, the Office is considering setting up an Observatory, which will provide an inclusive EPN platform that brings together public and private stakeholders from across civil society to discuss and debate developments in innovation and patents. These structural adjustments will be presented in a second stage after the adoption of the SP2023 and dedicated concept papers will be submitted to the Council.

11. Finally, and in accordance with its role as a starting point, the first goal of the Kilkenny meeting is to reach a common understanding on the main priorities for future co-operation activities and on agreed modalities for the implementation of projects, in particular on project management and on the financial support.

12. Consequently, only a few activities are outlined herewith, to serve as a model to initiate the new co-operation approach, with an emphasis on establishing new ways of working. By no mean it should be interpreted as an exhaustive and definitive list of future activities. If these initial ideas are successful, they will serve as the basis for a second wave of activities.

II. Principles

13. Based on a long experience of co-operation activities between EPO and the Member States, some guiding principles will be considered in order to help the different partners of the EPN define, implement and monitor co-operation projects and activities:

– **Identification of the areas of co-operation:** co-operation activities shall extend to initiatives of common interest across the EPN, with specific attention paid to users' needs. These activities are jointly identified through consultation of Member States and user representatives. The final decision to launch specific projects and activities is taken by the Council based on the opinions of its committees when necessary (e.g. TOSC, PLC, BFC, ASB). The prioritisation of co-operation activities will be subject to the availability of resources.

– **Participation in co-operation activities:** the Member States are free to select the projects and activities in which they wish to participate. They can decide to start their involvement at different stages, from the design of a project to the participation in test-phase or working groups or even only at the last stage of implementation.

– **Sharing roles in co-operation projects:** the design, planning and development of common tools are coordinated between the Office and the participating Member States. The Office assumes responsibility for producing and delivering central tools. The Office supports the deployment of the tools in the national offices, and the national offices then assume responsibility for their maintenance.

– **Implementation of co-operation projects:** clear objectives shall be set for each initiative, to provide the basis for evaluating the benefits and results. NPOs are the entry point for co-operation activities in the national territories, in full respect of the principles of efficiency and subsidiarity.

– **Financing of co-operation activities:** co-operation activities are co-funded by the NPOs and the EPO on a cost-sharing basis. The contribution of the NPOs may be provided in kind.

III. Priority areas for co-operation based on the inputs to the Strategic Plan

14. The SP2023 consultation carried out in 2018/19 indicated that the co-operation between national offices and the EPO is appreciated. The majority of respondents also provided input that specifically addressed a number of certain areas in co-operation.

15. Co-operation related to the knowledge of the patent system was indicated as a priority, in combination with the role of the Academy; training opportunities should be maintained and reinforced for all target groups, from examiners and professionals to the users and the public at large. Similarly, IT related co-operation was indicated as a high priority; common tools and procedures with the Member States are requested and could be extended in coordination with other institutions. The national offices have requested the EPO to monitor the evolution of patent practice and to consider further harmonisation of procedures, placing Europe in a leading role within the global patent system.

16. The Member States request that co-operation initiatives are to be carried forward and strengthened, recommend increased coordination with the national offices, and encourage collaborative work and knowledge transfer. It is wished that co-operation activities be continued within a revised framework, wherein favourable financial conditions and expert support will maximise the impact of co-operation.

17. The Office intends to move forward on the content and the modalities of co-operation along the lines of the proposals submitted by the Member States.

18. This is why a new catalogue of co-operation projects will be developed. It will be organised around four pillars to create a European patent network; IT infrastructure on the basis of program of simplification of processes and procedures; co-operation projects to enhance knowledge and quality; co-operation projects aimed at work-sharing; and co-operation projects to promote the converge of patent offices practice.

19. To this aim, in a first step, a limited number of initiatives of common interest are proposed herewith for consultation. These initiatives should be considered as "test areas" in the preparation, finalisation, adoption and implementation of the co-operation strategy. Selected activities are described for consultation with the Member States and for subsequent inclusion in the catalogue of potential co-operation projects.

20. Existing co-operation activities should evolve into the new strategy, upon recommendation of the Member States. They will be governed by revised rules which maximise the impact of co-operation and make the financial and administrative procedures more flexible.

21. As outlined in the section of this document dedicated to the management of co-operation activities, a revised financial framework is proposed in support Member States, including when appropriate the provision and exchange of human resources. Furthermore a project management approach is also proposed for all co-operation initiatives, with the aim of increasing efficiency in implementation and to quantify progress towards defined deliverables.

A. Knowledge co-operation

22. Consultations with the users have – in addition to the high satisfaction rate regarding the existing services – indicated that in the framework of co-operation, national offices would also welcome new initiatives, collaborative creation models and greater publicity for projects launched by the Academy.

23. Systematic evaluation has shown that users around the world consider the Academy to be the trusted face of the EPO in external knowledge provision. In an ever changing environment the Academy will take stock of new technologies and trends and develop learning and educational offers for the future.

24. In the area of knowledge co-operation, the EPO proposes to launch yearly consultation exercises to clearly understand the needs of member states and other stakeholders and prepare for the December Council meeting the work plan of the Academy with a clear timetable on deliverables and resources. We will therefore propose an amended governance structure in order to meet these requirements.

25. The following new projects could be envisaged within the new co-operation framework, as proposed here below.

a) Develop new capacity building programme for national office staff

26. Examiner training and staff exchanges could be developed together to offer a dedicated and harmonised training scheme for national office staff that will allow them to provide additional services (wherever possible) in the area of mediation for IPRs, technology watch and specialised searches that focus, for instance, on patents as business assets. Specific training measures should be envisaged on technology transfer, landscape searches, and freedom to operate searches and commercialisation.

27. A scheme that foresees the secondment of experts could be envisaged to support search agreements. Expert exchanges should be designed to support national offices conferring search work to the EPO to build capacity for the promotion of the IP system at the national level, thereby potentially contributing to an increase in the number of national applications, technology transfer and greater exploitation of IP rights.

28. Two initiatives already running could be extended.

   – Support for language courses for the staff of the national offices. Considering that a growing number of working groups within the Network are conducted without interpretation services, several Member States have expressed the wish to extend language courses to all national offices.

   – A platform for exchanges on patenting procedures between the examiners of the EPO and the national offices. This activity is proposed for extension, and for re-consideration in the scope of the measures proposed under convergence of practices and examiner exchanges.

29. In these ways, additional skills would be built to address the relatively high number of "unused" patents and ensure that the IP asset can be turned into economic value by the businesses.

30. "Soft-skills" are in high demand amongst staff of national offices. Supporting national offices to become a crucial point of customer-oriented communication will feature highly on the list of new offers.

b) Training scheme for European Patent Administrators and Paralegals

31. Professionally trained patent administrators and IP paralegals hold important positions at patent attorney firms and company patent departments and bear significant responsibilities in positions of special trust. They manage administrative workflows independently, monitor payment of fees, deadlines and assist patent attorneys in administering patent applications.

32. This initiative is intended to help progress the profession and complement the national training offer, where existing with a view to the EPC. A dedicated training scheme focusing on the formal aspects of prosecution, including aspects of search (e.g. dealing with incomplete search or lack of unity) and examination (e.g. in preparation of oral proceedings) and opposition, as well as in limitation and revocation procedures.

33. The Academy would support the establishing of an official European qualification/certification aligned with the current EQE examination. Such formal certification would foster the development of this profession at European level and increase respective job opportunities at better salaries. Furthermore, in terms of customer-relationship management, the EPO will benefit from increased quality of patent applications, enabling a smooth administrative process.

c)   Foster EQE preparation for the next generation

34.   Based on its mandate to support the preparation of candidates for the EQE and in co-operation with the epi, the Academy could develop a new training programme for new-comers to the profession and enrich the learning path of current professionals with extensive training on legal developments and litigation.

35.   Dedicated awareness activities will need to address in particular countries where a low number of EQE qualified representatives can be observed. Becoming a patent attorney in a country where the profession doesn't really exist requires a completely different education path and learning setting, compared to countries having a well-established profession. New training content and methodology of for a young generation of future candidates should be developed to make the patent profession more attractive to them.

d)   Training scheme on Patent Intelligence

36.   The Office should become a leading agency on Artificial Intelligence and machine learning. By providing interactive training and discussion platforms around these tools and services of patent intelligence for business and researchers, the Academy will contribute to the Technology Transfer in Europe.

B. IT related co-operation

37.   Over the past two decades, IT has grown from an optional set of tools supporting day-to-day business into the major determinant of innovation and effectiveness for organisations, whatever their field of expertise. This is especially the case in knowledge-intensive work such as intellectual property.

38.   Against this background and in common with a number of Member States, the EPO is presently taking stock of its capabilities and future needs in terms of IT. With the support of the Boston Consulting Group and a broad range of internal experts, a comprehensive audit took place from October 2018 to February 2019 to assess the current state of IT development and organisation and to identify next steps.

39.   Over the past decade, the range and complexity of IT needs and solutions at the EPO has grown significantly, several hundred databases and more than 40 storage databases have put a strain on agile development and timely maintenance. In this context a number of improvements have been identified to be carried out in the near future.

40.   The range of services and departments working on IT has, from 1 May 2019, been reorganised into a new "Business Information Technology" structure based on clear roles and responsibilities, business partnerships and a flatter structure. This process is expected to be fully completed by December 2019.

41.   This new structure includes an explicit IT co-operation function in order to better support the work outlined in the Strategic Plan and this paper. This function will build on existing relationships, assessing the situation in the Member States and, over time, supporting a range of new common projects.

42.   From a technological perspective, the draft Strategic plan proposes several initiatives.

1.   A gradual move to make better and broader use of the opportunities offered by the Cloud

2.   Adoption of a development approach based on an agile methodology with an application programming interface (API) which makes the systems interoperable and supports open interfaces

3.   The systematic application of Artificial Intelligence and machine learning.

43.   All of these elements have been explored by a number of national offices, figure prominently in the results of the initial consultation, and should be actively pursued in all projects.

44.   For its own business, EPO will construct a single tool to support the complete end-to-end electronic patent grant process, forming the central pillar of the new digital organisation. Based on simplification of practices and infrastructure, this modular system will both:

1.   Support a move from the current landscape, consisting of hundreds of separate tools and associated costs, to a simpler solution

2.   Facilitate business process changes and the rapid introduction of new business functionality, resulting in a more agile and flexible organisation

45.   The challenges faced by National Patent Offices are in many cases similar, which means that co-operation in the field of IT has direct relevance to the digital transformation of EPO's day to day operations. The Strategic Plan consultation reveals a number of areas that are likely to yield short and long term improvements, and which are clear priorities for a number of Member States.

46. Across the board in all our co-operation, the quality of the data we exchange has a critical impact on the whole examination process, and will be a focus for ongoing co-operation.

47. The areas of functionality expressed below are grouped for convenience into four areas, starting with the user's initial decision to obtain information, through the entry of data into the patent system, to its subsequent management and delivery back to the end user. These initial project areas are expected to be the subject of extensive joint investigation through a process of mutual site visits and working group discussions after the approval of the draft strategic plan.

a) **Access portal for members of the network**

48. Within a range of projects such as the National Office Centre, EPOXY, and MICADO, the EPO and its partners maintain a wide range of different web presences, with differing techno-logical bases, participants and access rules.

49. In parallel with the EPO new Web presence project, the Access portal would seek offer a single gateway to replace these different systems with a secure and effective environment.

b) **Search tools**

50. Search is critical to the work that EPO and its partner offices carry out and is a field in which technology continues to advance quickly. A number of national offices and users cited search tools such as ANSERA, EspaceNET and EpoqueNET, and shared access to search during the consultation, as important areas. The Office is ready to consider a project which would aim to improve the service offered by all EPO's existing search systems, and lay the foundations for further improvements.

51. An initial phase would analyse the current usage of our systems in real-life situations with end-user companies (including commercial patent information providers, where possible) and examiners in all participating jurisdictions, looking closely at where different tools are used and the benefits of particular functionalities. Two example projects which respond to the needs of EPO experts and the wishes expressed during the consultation are set out below.

52. (Pre-) Search is one of the first tasks to be performed by the EPO. Some applications will not reach the examination phase after searching, but the work performed by the examiner in Search should always remain available in the next steps of the process. We will examine the creation of a search system based on an improved ANSERA with access to a larger set of prior art and unpublished application data in one single database.

1. AI tools will be embedded into this new Search system, allowing effective use of criteria such as annotations, concepts and history of the file, for the development of advanced search functionalities. The new Search system will assist the examiner in the construc-tion of search reports and in the production of written opinions.

2. Query Builder will be enhanced by making use of AI, dictionaries and concepts. Concepts will be used for sharing experience between examiners. This new Search system will offer examiners the possibility to develop extensions through the use of Application Pro-gramming Interfaces (APIs). It will also be seamlessly integrated with a common Viewer and Annotation tool.

53. Classification is also one of the first tasks to be carried out and which will benefit from enhanced use of IT. The EPO already uses a system based on machine learning to improve accuracy and routing of files. This machine-learning approach will be expanded significantly.

c) **Front office tools (e-filing and related services)**

54. Following extensive analysis and consultation, this project would update and operationalise existing efforts to provide online filing, whether in eOLF, Hosted e-filing (HFS) integration EP, PCT and national filing routes, or other initiatives. Interconnectivity with the PCT system will be a key driver; these efforts may require significant institutional co-operation initiatives to deliver results.

55. The EPO will undertake a systematic review of these efforts, identifying where it's possible to move forward, what must be changed, and the key drivers for success. It seems likely that previous ambitions will not be realised in the short term, with some improvements to eOLF being made while the future of the HFS project becomes clear. However, before beginning work on the implementation of the national route software it is essential that an expert group to converge practice on e-filing is established. This will minimise the technical complexity and cost of the next phases and avoid confusion for users when the software goes live in each country. Given the frequency with which users switch between national, European and international procedures, it is all the more important that this experience is as seamless as possible. To some extent, this has been done with the National Patent Offices of the pilot group, which in March 2017 reached an agreement on the "Standard & Extended features" related to filing. The intention is to use this work as a starting point and extend its reach so that the resulting converged practice on e-filing is applicable to more National Patent Offices.

56. The Office will undertake the construction of a modular solution which can be built together with the other projects in a phased manner, or used optionally. It will include examination of the full range of interfaces between patent granting authorities and applicants.

d) Back office (case management and file handling)

57. IP offices worldwide are struggling to rapidly update and operationalise the core infrastructure, software, and related functions that support their operations: the day to day management of dossiers, cases and information from users. This is an area which can provide significant benefits across the lifecycle of a patent.

58. At the EPO, modules and features under consideration include:

1. Creating one single viewer for all different crucial patent granting tools.

2. Implementation of an annotation model to support the creation, storage and use of annotations in a consistent manner in all available tools. It is also of utmost importance that annotations can be created in the most ergonomic and user friendly way with the minimum of mouse clicks, and online aids and suggestions.

3. A tool which could assist the examiner in at least suggesting a basis for features that have been changed (inserted, deleted and replaced) would be very helpful. A new single comparator tool should indicate the amendments of a claim and give indications for the basis of these amendments in the original claims as well as in the description. It should also detect changes in images or symbols. An analysis of the claims will be performed to create a tree with its relationships.

4. A new Drafting tool which could guide the examiner or formalities officer in the communication drafting process, reusing as much as possible information already captured during the examination phase and interpreting the annotations in the file to propose pre-populated standard clauses for objections or citations.

5. An intelligent quality system allowing performing ex-ante and ex-post quality checks of files. The system would be configurable via business rules without IT intervention. This would enable responsible officers to identify potential quality issues through the identification of key parameters that could have an impact on the quality of the work performed by the examiner.

6. An IT tool supporting the calculation, validation and eventual refund of fees in order to alleviate the manual effort currently performed. The process of updating this should again be business-rules or table based, and possible to perform without the involvement of IT departments.

59. Any new system of this kind would need to trigger tasks and generate events (new communications) or alarms (deadlines missed) on files. It should be possible to provide an Inbox/Workbench where all these tasks and events appear. From this Inbox, examiners should have access to the files and other support tools.

60. Progressively, all new tools should be accessed through this interface. The Workbench will apply intelligent allocation rules to distribute files and new tasks. Eventually, through machine learning techniques, new files will be automatically allocated to the correct examiner taking into account not only the content of the application documents and the bibliographic information, but other data such as the current workload of the examiner, their technical competencies, previous files worked on and their availability.

61. A prerequisite for building a patent back office together with member states is the convergence of practices across the participating offices. A significant effort is needed to align and simplify these practices and procedures as a basis for a tool. The EPO may support the establishment of one or more projects which will undertake the task of defining a simplified, converged workflow for the examination, opposition, renewal and appeal phases. This will be carried out in close co-operation with working groups examining the convergence of practices (see below).

62. Depending on the extent to which this convergence of working practices is achieved, and the progress made with software development at the EPO, further consideration will be given to the detailed design of back office software together with national offices.

e) Maintenance and support

63. Where a decision is made to go ahead with an IT co-operation project, all tools constructed shall be built on the basis of shared responsibility. The EPO will host and maintain centralised systems in the interest of all users, but national offices will be expected to retain responsibility for their own instances, hosting and maintenance.

64. Where tools are jointly produced in support of national procedures, for example in the case of the back and front office suites, a handover and knowledge transfer package can be considered but the ultimate responsibility for national procedures and the systems that support them must rest with national authorities.

65. It will be expected that as the range of software grows, different authorities will implement it. The EPO is ready to consider founding and supporting a technical community to ensure maximum sustainability, knowledge-sharing and mutual support.

C. Convergence of practices

66. There are significant gains to be achieved in the quality and validity of patents, and in the predictability of the legal process, from a convergence of practices. The Convergence Programme would offer the possibility for the EPO to try to find common ground with the national offices and users in areas where diverging practices exist. It will contribute to a number of benefits for both, applicants and offices alike. Legal certainty will be increased, work-sharing will be facilitated, cost savings may be realised and quality improved further.

67. Taking the system of law common to the Member States for the grant of patents as a basis, major gains could be achieved by the careful reduction of differences in interpretation or practice. The approach to convergence would further allow the EPO and the Member States to convey a common voice in the international exchanges.

68. Disparities of practice affect the user experience at many levels, as well as the quality of the applications and the processes between the offices and the users. In the consultation phase on the Strategic Plan, both national offices of the Member States and the users made proposals of possible topics for convergence assessment. As an example the draft Strategic Plan mentions examination practice for Computer Implemented Inventions (CII). Further areas to be assessed could be:

    – examination of unity of invention (aligned to the new PCT guidance)

    – accordance of priority date

    – designation of inventor

    – claim drafting and structure.

69. With reference to IT-related co-operation activities, the barriers presented by different approaches to the receipt and subsequent management of filing should also be scrutinised from the convergence point of view. Significant convergence of practices will be vital to the joint construction of an effective IT environment and the delivery of tools that work in the long term. The interaction between practice convergence and tools co-operation should be carefully monitored.

70. Based on the initial experiences, further and larger topics such as allowability of amendments and the application of a problem-solution approach in some technical areas could be envisaged.

71. To commence the activities, it is proposed to establish an initial working group to analyse the landscape carefully in order to prioritise the topics proposed by the Member States, as well as by other stakeholders, for further examination. The group will work together to build a shared plan for the composition and conduct of analysis, including next steps.

72. The work on analysing the disparities and achieving commonalities could be conducted in a defined working group which would report to the Committee on Patent Law. Within the framework of the Committee on Patent Law concrete proposals could be formed for the governing bodies. For certain topics the involvement of the SACEPO Working Parties (especially Working Parties on Rules and on Quality) in the early preparatory phase could be beneficial.

D. Work sharing co-operation

73. The search agreements between the EPO and the Member States deserve attention in the design of the new co-operation pillars, to ensure on the practical side a smooth workflow between the EPO and the participating offices, and also to make the search scheme more attractive.

74. Depending on the needs, a broad range of incentives could be assessed: from a simplification of the fee payment and reimbursement procedures, to support measures aimed at reducing the backlog of applications, from incentives for small entities in all Member States to training schemes on outreach initiatives. The latter could be supported with staff exchanges, detachment of experts, or the training of young professionals.

75. The adoption of collaborative platforms and virtual classrooms proposed for other activities should be pursued in this form of institutional training too. Opinions submitted by the national offices will be very valuable in re-scoping this activity.

IV. Co-operation management

A. Mechanism for co-operation

a) Project management approach

76. Co-operation will be delivered via a portfolio of projects aligned to the Goals and Key Initiatives of the EPO's Strategic Plan, following a standard methodology. This will:

   a. Enable participants to quickly identify where they can best participate and quickly obtain information

   b. Support the transparent management of changes

   c. Enable all stakeholders to make clear their own constraints and ambitions

77. Projects will be reported upon using a single list and information set, to be established during 2019, in order to support clear communication and avoid unnecessary overlaps and duplication.

78. This will include the publication of consistent, standard documentation for each project which sets out:

   1. The goals and expected benefits of the project

   2. The estimated timeline, main milestones and links with other projects

   3. The overall cost and main risks that will affect the project

   4. Communication aspects

79. The documentation above will be presented in the form of a summary table supported by a "project brief" for each project which supports stakeholders in responding to consultation and deciding upon which projects to prioritise.

80. In advance of each working group meeting, where possible, more detailed analysis papers will be prepared and made available in order to further support the projects. In this way, progress can be maintained and the flow of information ensured.

b) Planning

81. The elements in this paper both support and depend upon a consistent overall plan. Co-operation projects that are new will be launched in a manner consistent with this strategy and form part of an overall plan which will make the interactions and dependencies clear between all projects. Projects which are ongoing will be brought into this approach where there is a clear benefit to doing so.

82. To the extent possible, opportunities will be sought to enable a collaborative approach for building the overall plan and determining priorities, at least at a high level. This may take the form of a planning workshop or other similar event. Once prepared, the overall plan should be shared with all participants in order to minimise miscommunication and misalignment, as well as enabling rapid briefing and easy representation.

83. This will be further supported by ensuring that the meetings of the working groups will in almost all cases take place at the same time of the year in the same location. While a major logistical effort is required, the networking, consistency and transparency benefits are significant.

84. This plan will be based on a regular timetable that is determined to a large extent by the institutional framework of the EPO and other partner organisations. This should be further supported by regular reporting to the major meetings of the Organisation.

c) Use of seconded national staff

85. Co-operation projects represent an excellent opportunity for pilot secondment schemes, as the EPO progresses towards the institutionalisation of broader programmes. This method can help ensure buy-in from Member State national offices, support communications and

the development of networks, and reinforce mutual trust and belief at working level. Seconded National Experts (SNEs) bring deep understanding of their offices and a broader range of networks.

86. It is proposed that extensive use of seconded staff be made in co-operation activities, perhaps on a short term basis (two years) and subject to a light, but meaningful, selection process.

d) Expert working groups

87. The design of activities and projects shall be performed in close coordination between NPOs and the EPO. To this aim, it is proposed to set up expert working groups dedicated to jointly designing co-operation initiatives. The key features of these working groups should be the following:

– **Membership on the basis of expertise**
  For practical reasons it will be difficult for all stakeholders to take part in all groups; in order to support the creation of groups that deliver results, a CV-based selection process is proposed.

  In practice, this would mean that participating organisations would be asked to identify the experts from their offices who wished to participate in the design and creation of projects, and provide CVs to enable balanced and effective teams to be created. The individuals joining these projects should be consistent, i.e. no substitution, to enable progress to be made. Efforts would be made to ensure that all stakeholders are represented to some extent.

  The groups should be purely technical in character. The working groups would develop strong influence over the eventual shape of the project outcomes. Teams should be limited to no more than 12 people for practical reasons.

  This mechanism enables expertise to be mobilised from all offices, from large to small, on the projects of most interest, and supports the identification of new ideas at expert level.

  An outline process for the selection of working group members is attached in annex.

– **Working cycles**
Working groups should aim to meet at roughly the same time; i.e. roughly all in the same week on a six-monthly basis, with exceptions depending on the specific needs of the projects. This will support the general principle that networking, governance and interconnections are developed and that economies of scale are delivered when these meetings take place at the same time.

88. Each meeting should take place on the basis of a written analysis provided by the project team, provided in advance.

89. Working groups would be expected to maintain regular contacts via remote means during the interim periods.

90. On recommendation of the working groups it should also be possible to organise ad-hoc expert meetings that bring in wider audiences when needed. This is likely to be particularly valuable on matters of procedure or practice.

e)   **Reporting and validation**

91. Regular reports on the outcomes of these meetings should be provided, first to regular TOSC-type meetings and the PLC where projects have a direct impact, and then as part of the Strategic Plan reporting to all meetings of the Administrative Council. This reporting should be consistent (i.e. comparable between meetings) and transparent, with a clear offer to provide further information as required. Existing structures such as the annual meetings on co-operation and patent information should be carefully factored into this mechanism from the outset, since these meetings should provide valuable input and sponsorship.

92. Over time existing structures may be modified to work better. For example the use of more practical exercises, remote working and communications, and shared support/secretariat arrangements could be actively sought. The burden of EPO meetings on smaller offices is already high, particularly when seen in conjunction with WIPO/EU/EUIPO meetings, and a conscious effort should be undertaken to manage this burden.

93. Regular face to face consultations will be fostered. To this end, the EPO will publish a list of main contact points spanning the organisation, with responsibilities clearly outlined. The teams involved from the EPO side should also construct and execute a regular series of on-site;

face to face meetings with national offices in order to provide information, identify opportunities and developments, and ensure that all Offices are able to participate in co-operation activities to the fullest extent.

94. These meetings should be scheduled well in advance and prepared in writing, backed up by regular (initially six-weekly) formal contacts at operational management level. Member State national offices will be asked to nominate, or confirm, their own stable contact points for this work.

B. Financial considerations

95. National offices of the member states have expressed concerns about the administrative burden imposed by the current eligibility criteria. Also the application of a compulsory contribution by a national office on each project or activity limits the possibility to participate.

96. To overcome the difficulties experienced in the past, it is proposed that the national offices of all Member States and the EPO will co-finance co-operation projects and activities. The EPO will finance 80% of the cost while the Member State national offices will finance 20%.

97. The proposed ratio for sharing costs should be considered as a guiding financial reference. It should not be applied as a hard ceiling per activity or project. It is foreseen that the contribution from national offices could also be provided in-kind, in the form of goods or services. The Office will support in full the development of central tools and services. The Office supports the deployment of the tools in the national offices, who assume charge for the maintenance.

98. It is proposed to define the eligible costs to calculate the national and the EPO contributions to co-operation in a dedicated consultation group to be convened during the launch phase. The EPO staff costs will not be included under the eligible costs. Reports on cost sharing will be made during and at the end of a co-operation timeframe which needs to be defined.

99. The financial administration should be set up in such a way that no cross invoicing between the national offices and the EPO is required in order to minimise the administrative workload.

100. Participation in working groups would be fully-financed by the Office, given that the groups work in the interests of all. Participating national offices would be asked to ensure that experts are allocated a certain number of days per year per project in order to ensure best quality. These elements should feature clearly in the agreements signed between the EPO and the Member States. An exercise to harmonise these agreements in time and content is desirable; all agreements should run for the same period, have the same title, and start at the same point in the year as far as possible.

101. Within the scope of revision of the financial considerations, it is proposed to review the amount of the "Integration Package" for new Member States.

C. The co-operation strategy launch phase

102. This strategy, and the processes it outlines, represents a significant evolution in the approach to co-operation. To that extent it will require substantial deliberation and further development. The approach will therefore be the subject of extensive joint investigation through a process of mutual site visits and working group discussions, which will enable the identification of:

— The minimum necessary outcomes in order to progress together, as well as

— The range of common practices, IT modules and common services that might need to be built.

103. This process will take some time, and we do not expect to be able to indicate likely completion dates, particularly for legal and IT aspects, until these projects are already well advanced. It is important that all stakeholders come on board to aid in this process, however.

104. Proposed timeline:

Initial discussion at Co-operation AM	May 2019
Strategic Plan adopted	June 2019
Onsite assessment with Member States	July – September 2019
First group of projects in detail for consultation	October 2019
Endorsement by governing bodies	November 2019
Initial working groups meet	February 2020
Review meetings with national offices	Summer 2020
Possible second group of projects in detail for consultation	November 2020