



CPVO

Community Plant Variety Office



Annual Report 2019





CPVO

Community Plant Variety Office

Annual Report 2019

Manuscript completed in 2020

Neither the CPVO nor any person acting on behalf of the CPVO is responsible for the use that might be made of the following information.

Luxembourg: Publications Office of the European Union, 2020

Print	ISBN 978-92-9152-199-9	ISSN 1680-2845	doi:10.2803/76788	TG-AC-20-001-EN-C
PDF	ISBN 978-92-9152-198-2	ISSN 2363-3247	doi:10.2803/710760	TG-AC-20-001-EN-N
HTML	ISBN 978-92-9152-203-3	ISSN 2363-3247	doi:10.2803/50415	TG-AC-20-001-EN-Q

© Community Plant Variety Office, 2020

Reproduction is authorised provided the source is acknowledged.

For any use or reproduction of photos or other material that is not under the CPVO copyright, permission must be sought directly from the copyright holders.

CONTENTS

1. Welcome message from Martin Ekvad, President of the CPVO	5
2. Foreword by Bistra Pavlovska, Chair of the CPVO Administrative Council	7
3. 1995-2020: 25 years of the CPVO	8
4. The Community plant variety rights system	10
5. The Administrative Council	12
6. Organisation of the CPVO	17
7. Quality Audit Service	24
7.1. Assessment of examination offices	24
7.2. Audit programme	24
8. Research and development projects	28
8.1. Adoption of amended research and development rules	28
8.2. Revision of the CPVO research and development procedure	28
8.3. Situation as regards candidate research and development projects	29
8.4. Situation as regards ongoing research and development projects	30
8.5. Finalised research and development projects	32
8.6. The CPVO as a partner in the Horizon 2020 Invite project	34
9. Budget	35
9.1. Out-turn	35
9.2. Revenue	35
9.3. Expenditure	36
9.4. Conclusion	36
10. Developments in the system	37
10.1. Regulatory	37
10.2. Technical	37
11. Variety denominations	61
11.1. The CPVO Variety Finder	61
11.2. Cooperation in denomination testing	62
12. Information technology (IT)	64
12.1. E-services	64
12.2. Operational improvements	64
12.3. Communication tools	64
12.4. Infrastructure and support	64

13. Cooperation with the Directorate-General for Health and Food Safety	65
13.1. Standing Committee on Community Plant Variety Rights	65
13.2. Standing Committee on Plants, Animals, Food and Feed	65
13.3. Council working parties	67
14. External relations	68
14.1. Cooperation with external organisations	68
14.2. Training and promotion of the Community plant variety rights system	73
15. Public access to documents	77
16. Report of the data protection officer	79
16.1. Legal background	79
16.2. Role and tasks of the data protection officer	79
16.3. Report of the data protection officer for 2019	79
17. Appeal procedures	83
17.1. Composition of the Board of Appeal of the CPVO	83
17.2. Decisions of the Board of Appeal in 2019	83
17.3. Further actions to the Court of Justice in 2019	84
17.4. Appeals received by the CPVO and decisions reached by the Board of Appeal since its inception (statistics)	86
18. Conflicts of interest	90
Main acronyms, initialisms and abbreviations	91

1. WELCOME MESSAGE FROM MARTIN EKVAD, PRESIDENT OF THE CPVO



Martin Ekvad

Welcome to the readers of the Community Plant Variety Office's (CPVO) Annual Report 2019! I am pleased to introduce this report by underlining that, for the first time in the CPVO's history, we have granted more than 3 000 titles of Community plant variety right (CPVR) protection in 1 calendar year. The CPVO granted 3 188 titles in 2019. This is an increase of 431 titles compared to 2018.

The number of applications was also very high. The CPVO received 3 525 applications in 2019, reaching more than 3 500 applications in a calendar year for the third time in the CPVO's history. Compared to 2018 we saw a decrease of applications in the fruit and agricultural categories compensated for by an increase in ornamentals and vegetables.

The CPVO's budget out-turn remained stable in 2019 with a slight increase of revenues generated by annual fees and a decrease in administrative expenditure. The net out-turn for the year was approximately EUR 1.42 million positive.

The CPVO is and will remain a demand-driven agency. Whilst revenues generated by annual fees are relatively stable, revenues generated by application fees and examination fees vary from year to year. As regards costs, the principal components are the examination costs and costs for staff.

In March 2019, the CPVO's Administrative Council invited the European Commission to update the fees regulation to ensure full cost recovery for technical examinations and to keep the annual fees unchanged. Examination fees were adjusted to match the real costs of the technical examinations per group category and new fees will be applicable as of 1 April 2020.

In the research and development (R & D) area, the CPVO has been taking an active role in the 'INnovation in plant Variety Testing in Europe' (Invite) project which started in July 2019 and is funded by the EU Horizon 2020 R & D programme. The CPVO remains strongly committed to the Invite project and I am confident that it will deliver on its promises to improve both efficiency of variety testing and the information available to stakeholders on variety performance under different production conditions and biotic and abiotic stresses.

On the international scene, the CPVO has, through a project funded by the EU, stepped up the efforts to promote the CPVR system and share its know-how with governments, public institutions and industry partners in the African Intellectual Property Organisation (OAPI) countries. The CPVO also increased involvement in the implementation of several EU-funded IP Key projects to promote intellectual property rights (IPRs) and highlight the benefits of plant variety protection (PVP) in China, Latin America, and South-East Asian countries.

Last but not least, the CPVO signed an administrative arrangement with the Council of Agriculture of Taiwan in order to guarantee mutual recognition of examination results for PVP of orchid varieties.

Looking at global market trends, we continue the CPVO's digital transformation, moving towards more inclusive and user-friendly digital processes and services. The CPVO application system is now connected to the brand new International Union for the Protection of New Varieties of Plants (UPOV) PRISMA system which should facilitate the lives of breeders who are active in the EU and in other jurisdictions. In addition, we have initiated revamping our Variety Finder database and we are considering using more cloud-based services in the future.

Looking beyond the plant breeding community, 2019 was a year of transition for the European Union (EU).

On the one hand, a new European Commission and a new European Parliament were elected. Both institutions have already set out an ambitious vision for a European Green Deal, reiterating their strong commitment to the United Nations' sustainable development goals. The CPVO has initiated a reflection on how to best contribute to the implementation of these policies.

In this respect, the CPVO hired a communications officer in 2019 and one important task will be to explain to the public how the CPVO contributes directly or indirectly to a more sustainable Europe.

On the other hand, the negotiations on the withdrawal of the United Kingdom from the EU were finalised in late 2019. The CPVO has been careful to follow the guidance from the European Commission with a view to adapting and being ready for the withdrawal of the United Kingdom and the subsequent transition period.

Finally, 2019 was also a transition year for the CPVO because we have been looking at both the past and the future, and we will be celebrating our 25th anniversary in 2020.

Whilst I hope to celebrate the CPVO's anniversary with you in person, I invite you to take a look at our Annual Report 2019, which offers a comprehensive recap of the CPVO's activities and achievements.

2. FOREWORD BY BISTRA PAVLOVSKA, CHAIR OF THE CPVO ADMINISTRATIVE COUNCIL



Bistra Pavlovská

Dear readers,

You are going to look through the report of a very successful year for the CPVO.

The threshold of 3 000 applications per year was passed long ago. In 2019 only, the number of granted titles was above 3 000. The number of applications for protection as well as the number of titles granted enable the CPVO to preserve a stable and solid financial structure.

The breeders sent strong positive signals of support in 2019 when the CPVO Administrative Council (AC) voted in favour of a 100 % financial recovery of the examination costs. The decision, followed by the amendment by the Commission of the CPVO fees regulation which will enter into force in April 2020, gives more transparency for all sectors. Specific concerns relating to fruit breeders will be discussed in the relevant working group in the coming years and the results will be taken into account for the fees regulation for the period 2024 and onwards.

The year 2019 brought other positive changes to examination offices (EOs). In 2019, the Netherlands decided to move to upfront payments. Upfront payment of examination fees has become available to all EOs as of 1 January 2020 on request.

The AC adopted an updated version of the CPVO internal control principles, which provide a framework for ensuring sound financial management and the effective, efficient and economical achievement of the CPVO objectives.

The AC also adopted an updated version of the anti-fraud strategy which is focused on developing a strong anti-fraud culture within the CPVO.

Finally, the AC adopted new criteria to be taken into account when proposing the level of co-financing of R & D projects. The criteria are the basis for an internal CPVO procedure for the processing of project proposals.

In 2019 the new quality audit cycle started and three additional technical experts in the ornamental sector were added to the list.

The AC members noted that the CPVO faces the challenge of increasing competence in emerging technologies in order to be ready to react promptly to future innovation and developments. On the other hand, the AC was pleased to note the progress made on the joint CPVO–Commission information technology (IT) project ‘plant variety lists’ (Plavarlis) and the Horizon 2020 Invite project.

After another successful year, the CPVO, the AC and breeders are looking forward to celebrating the 25th anniversary of the CPVO in 2020. It will be a good time to show the stakeholders and society a European success story which is open to future global challenges and which truly benefits society.

3. 1995-2020: 25 YEARS OF THE CPVO



The CPVO celebrates its 25th anniversary in 2020 and it is a good opportunity to take stock of and reflect on the CPVO most important challenges and opportunities.

One thing is sure: the creation of the EU plant variety right (PVR) system was a good decision for Europe. One application, one procedure, one technical examination and one decision for a CPVR valid in all EU Member States. Whilst the CPVO administers the system the technical work is done at EOs throughout the EU. An excellent way to share the tasks at hand.

The CPVO system, based on the 1991 act of the UPOV International Convention for the Protection of New Varieties of Plants (UPOV 1991), is the largest and most efficient cross-national system for PVR protection.

Since 1995, the CPVO has processed nearly 68 600 applications and granted over 53 500 PVR titles. Today, more than 28 200 new plant varieties are being protected in the EU by the CPVO.

The situation has evolved tremendously in 25 years.

In 1995, at the time the CPVO was established, the EU grew from 12 to 15 Member States. The CPVO operated with fewer than 10 staff members and all applications were filed on paper. The CPVO's main focus was the processing of applications and one employee only was working half time on informatics. Fees were fluctuating almost on a daily basis, as they were set in the European currency unit, which was adapting every day to the actual value of national currencies.

There was a steady increase of applications every year and by coincidence, in the year 2000, the CPVO received more than 2 000 applications for the first time and has never gone below that level since.

In 2005, the EU, which had grown from 15 to 25 Member States, became the first ever intergovernmental organisation to be granted full member status of UPOV. Since then, the CPVO has assisted the European Commission on UPOV matters and has taken an active role in all UPOV working parties, council sessions and other relevant UPOV forums and activities.

In 2019, the EU prepared to become an organisation of 27 Member States instead of 28. The CPVO has been careful to follow the guidance from the European Commission with a view to being ready for the withdrawal of the United Kingdom and the subsequent transition period.

The CPVO received applications for varieties belonging to more than 2 200 botanical taxa. To meet this challenge more than 200 technical protocols (TPs) have been drafted in close cooperation with national experts and adopted by the AC. The protocols are mandatory for Community PVP and for EU Member States for both national PVRs and listing purposes.

This has led to significant harmonisation in variety testing and as a consequence to increased transparency and improved legal certainty for applicants to the EU system.

The CPVO has also changed tremendously in 25 years. In 2019, the CPVO employed about 50 staff members and 95 % of its application processes and operating systems have become digital. The CPVO application system is now connected to the brand new UPOV PRISMA system which should facilitate the lives of breeders who are active in the EU and in other jurisdictions. The CPVO has five full-time employees specialised in IT and this figure is going to grow as the CPVO will be rolling out a new set of digital tools to offer better-quality services to its customers and to contribute to the digitalisation of the EU.

In the field of R & D, the CPVO saw an evolution from early 2000s' projects focusing on phenotypical assessments to today's innovative projects that explore new methods of involving biomolecular and deoxyribonucleic acid (DNA) techniques in the testing work.

The CPVO is nurturing a close collaboration with the European Commission with its partner directorate-general (DG), DG Health and Food Safety, as well as DG Trade and DG International Cooperation and Development.

The CPVO has been keen to involve breeders' organisations in its work. The European Seed Association (Euroseeds), the International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties (Ciopora) and the Dutch Association for the Plant Reproduction Material Sector (Plantum) are observers to the AC and annual bilateral meetings are held with organisations such as the International Association for Horticultural Production (AIPH) and the European Consortium for Organic Plant Breeding (ECO-PB). Seminars, bilateral meetings and other events have been organised in close cooperation with the industry with the aim to promote the system and inform stakeholders and the public about plant breeding and PVRs.

On the international scene, the CPVO participates in implementing important EU-funded projects in many non-EU countries. The CPVO is building its network with other intellectual property (IP) offices in the EU Member States as well as the European Union Intellectual Property Office (EUIPO), the European Patent Office (EPO), the United States Patent and Trademark Office, the United States Department of Agriculture, the United Kingdom Ministry of Agriculture, Forestry and Fisheries, China, the African Regional Intellectual Property Organisation and OAPI.

In this context, the new European Commission which was elected in 2019 has proposed a new flagship policy called the European Green Deal. It resets Europe's commitment to tackling climate change and environmental challenges. It is an integral part of the Commission's strategy to implement the United Nations' 2030 sustainable agenda and the sustainable development goals. In the coming year, the CPVO will analyse how to best contribute to the implementation of this policy.

4. THE COMMUNITY PLANT VARIETY RIGHTS SYSTEM



From its foundation and over its 25 years of functioning the CPVO has managed the CPVR system by granting an intellectual property right for protecting new plant varieties with unitary effect throughout the whole territory of the EU via a single application to the CPVO.

The CPVR system is not intended to replace or even to harmonise national systems but rather to exist alongside them as an alternative. Indeed, it is not possible for the owner of a plant variety to simultaneously exploit a CPVR and a national right granted in relation to that variety. Where a CPVR is granted in relation to a plant variety for which a national right or patent has already been granted, the national right or patent is rendered ineffective for the duration of the CPVR.

The legal basis for the CPVR system is found in Council Regulation (EC) No 2100/94 on Community plant variety rights (the basic regulation (BR)). On receipt of an application for a CPVR, the CPVO must establish that the variety is novel, that it satisfies the distinctness, uniformity and stability (DUS) criteria and that a suitable variety denomination has been registered. Following the fulfilment of the formal and substantive examinations of applications, the CPVO arranges for a technical examination to determine DUS, to be carried out by the entrusted EOs in the Member States or by other appropriate authorities outside the EU. To avoid unnecessary duplication of work where such a technical examination is being – or has already been – carried out in relation to a variety for official purposes, the CPVO may, subject to certain conditions, accept the results of that examination by taking over the report concerned.

Anyone may lodge an objection to the granting of a CPVR with the CPVO in writing and within specified time limits. The grounds for objection are restricted to allegations either that the conditions laid down in Articles 7 to 11 of the BR are not met (DUS, novelty or entitlement) or that the proposed variety denomination is unsuitable due to one of the impediments listed in Article 63 of the BR. Objectors become parties to the application proceedings and are entitled to access relevant documents. Following the grant, a CPVR may be declared null and void *ex officio* by the CPVO or on the request of a third party on one of the conditions laid down in Article 20 of the BR. A third party seeking annulment of a CPVR must adduce evidence and facts of sufficient substance to raise serious doubts as to the legality of the grant of a CPVR following the examination provided for in Articles 5 and 55 of the BR. A CPVR can also be cancelled on one of the grounds established under Article 21 of the BR.

Except in two specific instances where a direct action against a decision of the CPVO may be brought before the Court of Justice of the European Union, a right of appeal against such a decision lies with the Board of Appeal consisting of a chair appointed by the Council of the European Union and two other members selected by the chair from a list adopted by the AC. The addressee of a decision, or any person who is directly and individually concerned by the decision, may appeal against it. After examining the appeal, the Board of Appeal may exercise any power that lies within the competence of the CPVO or refer the case back to the CPVO, which is bound by the Board of Appeal's decision.

Actions against decisions of the Board of Appeal may be brought before the Court of Justice of the European Union, based in Luxembourg. Decisions of the Board of Appeal and of the Court of Justice of the European Union are published in the CPVO case-law database on the CPVO website.

Figures 15 and 17 in Section 17 show the number of notices of appeal lodged with the CPVO and the decisions reached by the Board of Appeal.

Once granted, the duration of a CPVR is 25 years, or 30 years in the case of potato, vine and tree varieties. These periods may be extended by legislation for a further 5 years in relation to specific genera or species. The effect of a CPVR is that certain specified activities in relation to variety constituents or the harvested material of the newly protected variety require the prior authorisation of the rights-holder. Such authorisation may be granted subject to conditions and limitations. Infringement of a CPVR entitles the rights-holder to commence civil or penal proceedings in the courts of the Member States against the perpetrator of the infringement.

Registers, which are open to public inspection, contain details of all applications received and all CPVRs granted by the CPVO. The *Official Gazette of the Community Plant Variety Office* is published every 2 months and contains the information entered in the registers. Information on applications and titles in force is also found in a database accessible via the CPVO website.

5. THE ADMINISTRATIVE COUNCIL

The CPVO is supervised by an Administrative Council (AC) comprising representatives of the Member States and the European Commission and their alternates. The AC monitors the activities of the CPVO. In particular, it is responsible for examining the president's management report, adopting the CPVO's budget and granting discharge to the president in respect of its implementation. In addition, it can provide advice, establish rules on working methods within the CPVO and issue guidelines on technical examinations, committees of the CPVO and general matters.

The AC met twice in 2019: in Angers, France on 19 and 20 March and in Brussels, Belgium on 19 September.

At the **19-20 March** meeting, the AC members appointed Mr van Goethem as reporting officer for the appraisal of the president of the CPVO. Mr M. Valstar (Vice Chair) remains the second reporting officer and Mrs B. Pavlovska (Chair), the appeal officer. They also unanimously appointed Mr D. Eriksson as a member of the R & D Advisory Group.

During this meeting, the members of the AC adopted the following.

- The consolidated annual activity report for 2018, providing a complete overview of the CPVO's activities for 2018 and including the analysis and assessment to be signed by the chair of the AC and the discharge of the president of the CPVO for the implementation of the 2017 budget.
- The amendment of five articles and the annex of the fees regulation, the chosen option for application fee changes for the period 2020-2023 and the move to 100 % recovery of the real examination costs with no change in the annual fee.
- Two new and six revised TPs presented for the following:
 - (new) CPVO-TP/008/1 – *Vicia faba* L. var. *equina* St.-Amans; *Vicia faba* L. var. *minuta* (hort. ex Alef.) Mansf. (entry into force on 1.6.2019);
 - (new) CPVO-TP/122/1 – *Sorghum bicolor* (L.) Moench; *Sorghum xdrummondii* (Steud.) Millsp. & Chase. (entry into force on 1.8.2019);
 - (revised) CPVO-TP/003/5 – *Triticum aestivum* L.;
 - (revised) CPVO-TP/004/2 – *Lolium perenne* L.; *Lolium multiflorum* Lam. ssp. *italicum* (A. Br.) Vokart; *Lolium multiflorum* Lam. ssp. *non alternativum*; *Lolium multiflorum* Lam. var. *westerwoldicum* Wittmt; *Lolium multiflorum* Lam. ssp. *alternativum*; *Lolium boucheanum* Kunth; *Lolium x hybridum* Hausskn.; *Lolium rigidum* Gaudin;
 - (revised) CPVO-TP/019/5 – *Hordeum vulgare* L.;
 - (revised) CPVO-TP/084/3 – *Prunus salicina* Lindl.;
 - (revised) CPVO-TP/154/1 Rev. – *Cichorium intybus* L. var. *foliosum* Hegi;
 - (revised) CPVO-TP/061/2 Rev. 2 – *Cucumis sativus* L.
- A decision process to be applied by the CPVO when assigning candidate varieties to EOs. The decision came into force on 20 March 2019.
- Five entrustment recommendations for Ireland (Department of Agriculture, Food and the Marine), Austria (Austrian Agency for Health and Food Safety (AGES)), Greece (Hellenic Ministry of Rural Development and Food) and Italy (the Council for Agricultural Research and Agricultural Economics Analysis (CREA) – Olive, Citrus and Tree Fruit Research Centre and CREA – Viticulture and Enology Research Centre).

- The inclusion of three new Quality Audit Service (QAS) technical experts to the list of qualified members for the 2019-2021 cycle.
- The QAS review report for 2018.
- The amendment of the CPVO policy on the status of plant material used for DUS testing purposes.

The members of the AC also took note of the following.

- The preliminary draft budget for 2020.
- The single programming document for 2020-2022 (multiannual programme on main activities and resources for coming years) to be adopted in September 2019.
- The update on ongoing and new R & D projects.
- The update of the Invite project to improve efficiency of testing and availability of information, as well as the potential collaboration with InnoVar.
- The state of affairs as regards Brexit.
- The state of affairs of the cooperation between the CPVO and the EPO.
- The update on the CPVO international relations strategy (African Regional Intellectual Property Organisation, OAPI, IP Key projects).
- The update of the joint CPVO–Commission IT project.
- The recommendation of the European Ombudsman for access to documents regarding two selection procedures and follow-up given by the CPVO.
- The CPVO call for expressions of interest from national authorities for seconded national experts.
- The report of the annual meeting with EOs in 2019.
- The state of play as regards the implementation of the judgment on new breeding techniques.

They furthermore did the following.

- Welcomed the recruitment of new staff at the CPVO with a view to transfer of knowledge and acknowledged the overall heavy workload of the CPVO.
- Endorsed the revision of the CPVO Integration of MOlecular Data into DUS testing (ImodduS) strategy paper.

At the **19 September** meeting, the members of the AC adopted the following.

- The draft budget for 2020 as proposed by the CPVO.
- The CPVO anti-fraud strategy.
- The CPVO internal control principles.
- The single programming document 2020-2022 (by written procedure).
- The amendment to the public access procedure.
- The amendment to the decision on the remuneration of the members of the Board of Appeal.
- The establishment of the Working Group on Cost Calculation to establish new remunerations for EO(s) and the terms of reference.

- The amended R & D rules with changes proposed to Article 4 as regards the criteria to be taken into account for the level of co-funding, Article 5 as regards an assessment on admissibility to be made by the CPVO and Article 6 as regards a declaration of absence of conflicts of interest to be signed by the members of the Advisory Group.
- The proposal as presented that DUS examinations would be organised at the Mexican office – Servicio Nacional de Inspección y Certificación de Semillas – for ongoing CPVO application as well as for future applications for the species *Psidium guajava*. They also agreed that the CPVO would be entering into an arrangement for 5 years with the Servicio Nacional de Inspección y Certificación de Semillas, under which the CPVO could both take over DUS reports and initiate DUS tests for the species in question.
- The proposal as presented to enter into an agreement with the Costa Rican office – Oficina Nacional de Semillas – to take over the DUS report for the genetically modified *Ananas comosus* (L.) Merr. variety 'Rose'.
- The entrustment of the following EOs:
 - (extension of entrustment for) the French Variety and Seed Study and Control Group (GEVES);
 - the Croatian Agency for Agriculture and Food;
 - the Polish Research Centre for Cultivar Testing (Coboru).
- The Commission model decisions on middle management, on contract agents and on the function of adviser; and, by analogy, the Commission decision on outside activities.

The members of the AC also took note of the following.

- The president's report and the statistics for 2019.
- The financial situation of the CPVO.
- The IT review processes report from PricewaterhouseCoopers. They acknowledged that funds and (human) resources would be necessary to implement the IT strategy for CPVO digital transformation over the next 3 to 5 years.
- The CPVO external communications and outreach strategy.
- The CPVO final accounts for 2018.
- The report on QAS activities.
- The two new R & D projects co-funded by the CPVO to start from 1 January 2020: one on the development of a single-nucleotide polymorphism (SNP) marker set for cannabis to support DUS testing, coordinated by the Netherlands Inspection Service for Horticulture (Naktuinbouw) and planned for a duration of 24 months; and one named 'Harmorescoll', aiming at facilitating access to reference material for performing disease resistance tests within DUS examinations, coordinated by both GEVES and Naktuinbouw and scheduled for 3 years.
- The update on the Invite project.
- The report on the meeting with the industry on essentially derived varieties.
- The stay of the implementation activities planned in the framework of the bilateral cooperation between the EPO and the CPVO until autumn 2019 following the EPO's Technical Board of Appeal decision on biotechnology and plants in case T-1063/18.

- The CPVO proposal to amend the policy on public access to documents in relation to the breeding scheme. In essence, the CPVO would need to assess each request for access to the breeding scheme for non-hybrid varieties. The change of practice does not affect hybrids for which Article 88(3) of the BR establishes confidentiality of the breeding scheme if so requested by the applicant at the time of filing the application.
- In the EU–Mercosur free trade agreement in principle announced on 28 June 2019 the provisions on PVP are also based on the UPOV 1978 act and not only on UPOV 1991.
- The information on possible future developments in the amendment of the seed legislation.

They furthermore did the following.

- Welcomed that the upfront payment of examination fees to EOs would become available to all EOs as of 1 January 2020. In 2019, only the Netherlands moved to upfront payments.
- Appointed the six experienced technical experts proposed as substitute QAS team leaders for the period until the end of 2021.
- Appointed a new QAS technical expert for the 2019-2021 assessment cycle.
- Consented to the conclusion of a written agreement with the Servicio Nacional de Inspección y Certificación de Semillas in Mexico for *Carica papaya*.

Table 1

Chair of the Administrative Council	
B. Pavlovska since 4 October 2017	
Vice Chair of the Administrative Council	
M. Valstar since 4 October 2017	
Members of the Administrative Council	
Belgium	B. Coene (member) G. Bailleux (alternate)
Bulgaria	B. Pavlovska (member) T. Gadev (alternate)
Czechia	D. Jurecka (member) R. Šafáriková (alternate)
Denmark	K. Riskaer (member) K. Bech Klindt (alternate)
Germany	E. Pfuelfb (member) (alternate vacant)
Estonia	L. Puur (member) (alternate vacant)
Ireland	D. Coleman (member) N. Ryan (alternate)

Members of the Administrative Council	
Greece	E. Pilatos (member) A. Georgoula (alternate)
Spain	J. A. Sobrino Maté (member) B. Rodriguez Sendon (alternate)
France	A. C. Cotillon (member) M. Omrani (alternate)
Croatia	I. Delic (member) Z. Cegur (alternate)
Italy	I. Pugliese (member) (alternate vacant)
Cyprus	C. Christou (member) A. Georgiadou (alternate)
Latvia	I. Ovsjannika (member) (alternate vacant)
Lithuania	S. Juciuviene (member) I. Kemeziene (alternate)
Luxembourg	M. Weyland (member) F. Kraus (alternate)
Hungary	T. Harangozo (member) K. Miklo (alternate)
Malta	M. Delia (member) M. Cardona (alternate)
Netherlands	M. Valstar (member) B. Scholte (alternate)
Austria	K. Mechtler (member) (Alternate vacant)
Poland	E. Gacek (member) M. Behnke (alternate)
Portugal	A. P. Cruz de Carvalho (member) T. Afonso (alternate)
Romania	M. Popescu (member) M. Ciora (alternate)
Slovenia	J. Ilersic (member) J. Cvelbar (alternate)
Slovakia	B. Bátorová (member) L. Gasparova (alternate)
Finland	T. Hietaranta (member) H. Kortemaa (alternate)
Sweden	J. Weibull (member) C. Knorpp (alternate)
United Kingdom	A. Mitchell (member) M. Watts (alternate)
European Commission	B. van Goethem (member) D. André (alternate)

6. ORGANISATION OF THE CPVO



CPVO headquarters, Angers, France

In December 2019, the CPVO employed 51 persons: nine officials, 36 temporary agents and six contract agents. Twelve nationalities from the EU Member States were represented.

Under the general direction of its president, assisted by the vice president, the CPVO is organised internally into three units and a QAS responsible for the quality auditing of EOs. This service is under the administrative responsibility of the president while being independent with regard to its audit operations.

The Technical Unit has the following principal tasks: general coordination of the various technical sectors of the CPVR system; reception and checking of applications for protection; organisation of technical examinations or takeover reports; organisation of variety denomination examinations; preparation for the granting of rights; maintenance of the CPVO's registers; production of official technical publications; relations with applicants, national offices, stakeholders and international organisations; active participation in international committees of technical experts; and cooperation in the development of technical analysis and studies intended to improve the system (namely CPVO R & D projects). Moreover, advice is given to the Member States in relation to variety denomination proposals received within the framework of national listings and national plant breeders' rights (PBR).

The Administration Unit consists of the following four sectors.

- The administrative sector, which deals with the reporting of the CPVO's activities to the European Commission.
- The accounting sector, which deals with the management of financial transactions; treasury management; maintenance of the budgetary and general accounts and preparation of budgets and financial documents; and the management of the fees system.
- The IT sector, which ensures that the CPVO runs smoothly in terms of computing. Its tasks include analysis of the CPVO's hardware and software requirements; design, development and installation of new programmes specific to the CPVO; development and maintenance of the CPVO's websites; installation of standard programmes; maintenance of computer installations and their administration; ensuring the security of the computer system; running the helpdesk; and interinstitutional cooperation in computing.
- The human resources sector, which deals with the administration and management of the CPVO's human resources in compliance with the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the EU (hereinafter referred to as the staff regulations).

The Legal Unit provides legal advice to the president and other staff members of the CPVO, in principle on matters related to the CPVR system, but also on questions of an administrative nature; provides legal interpretations and opinions and also draws up draft legislation; participates in various CPVO committees, thus ensuring that EU procedures and legislation are respected; manages the administration of objections to applications for CPVRs; and provides the secretariat of the CPVO's Board of Appeal. The Legal Unit is also responsible for the public procurement and the administration, management and monitoring of the CPVO's inventory of movable property and buildings, and the administration of logistical

and operational resources with a view to ensuring the smooth functioning of the CPVO. A communications sector, which was integrated into the Legal Unit as of 1 January 2019, is responsible for external communications, publications, exhibitions, etc.

The data protection officer (DPO) role, which used to be filled internally in the CPVO, is now outsourced and managed through a service-level agreement with EUIPO, with the help of a CPVO coordinator.

The QAS is responsible for verifying that EOs meet the quality standards required for providing services to the CPVO in the area of testing the compliance of candidate varieties with the DUS criteria, in addition to their novelty.

In 2019, the CPVO hosted seven trainees who joined the CPVO under the traineeship procedure to allow young university graduates to gain experience in the CPVO for a period of 6 or 12 months. As of 31 December 2019, three of them were still present. The CPVO also had one interim agent (contract for a limited period of time) in the Legal Unit, and two IT external consultants were present in the CPVO (one on a full-time and the other on a half-time basis).



Alina Ceban
Trainee –
Legal Unit



Laura Farci
Trainee –
Administration Unit



Carmen Mera Fuentes
Trainee – Legal Unit



Kristina Saprykinaite
Trainee – Legal Unit



Giulio Serafino
Trainee – Legal Unit



Marta Vidal
Trainee – Legal Unit



Juan Antonio Vives Valles
Trainee – Legal Unit



Renaud Chollet (until June)
External consultant –
Administration Unit
(IT sector)



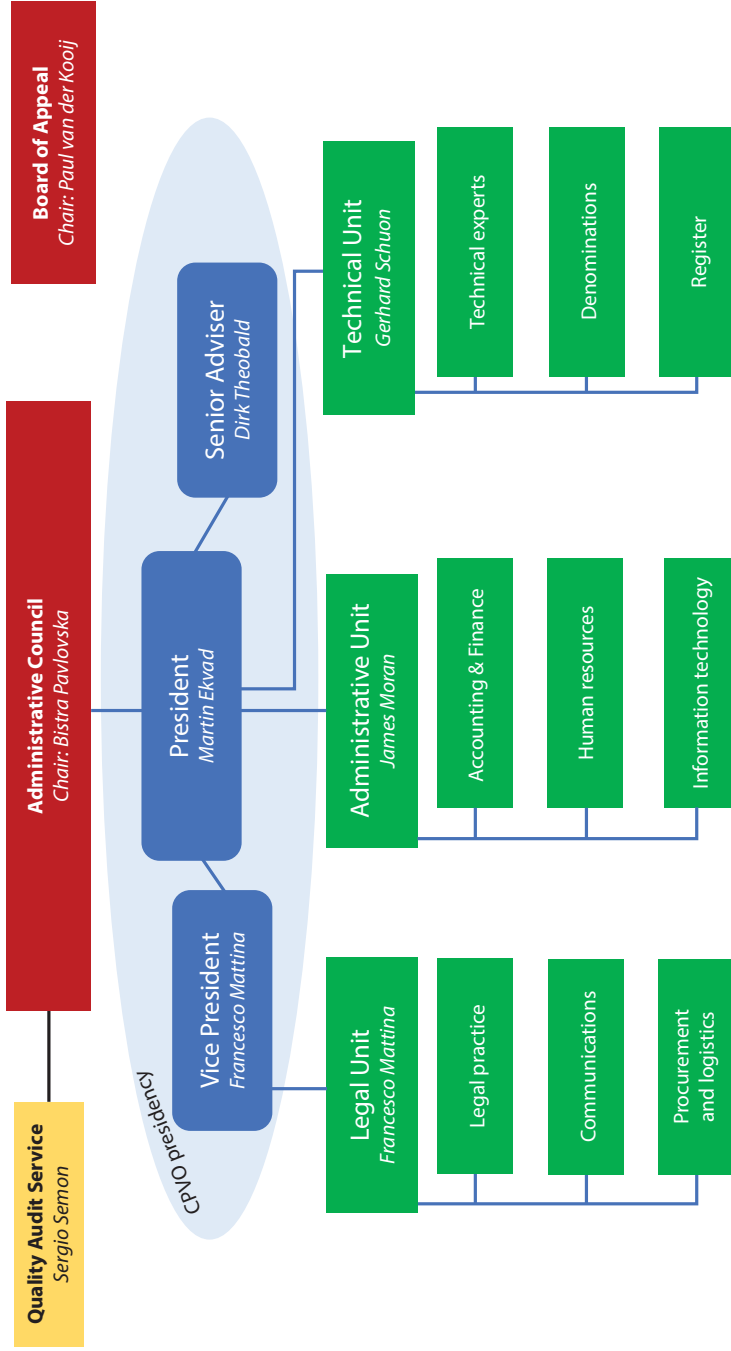
Maël Godard (half time)
External consultant –
Administration Unit
(IT sector)



Delphine Lamat
Interim agent –
Legal Unit

In 2019, the CPVO prepared a social report with information concerning the staff turnover, work environment and social aspects of the CPVO. The different headings covered in the report were employment (staff members, recruitment procedures, staff joining or leaving the CPVO, promotions, absenteeism, gender balance), working conditions (hours worked, part-time work, parental leave, teleworking), training (language training, IT training, other training) and professional relations (Staff Committee). The CPVO's social reports from 2006 to 2016 can be consulted on the CPVO website ('About us/What we do/Reports/Social reports'). Since 2017, the social report has been an integrated chapter in the 'Consolidated Annual Activity Report' included in the reports section of the CPVO website.

ORGANISATION CHART OF THE CPVO



PRESIDENCY



President
Martin Ekvad



Vice President / Head of the Legal Unit
Francesco Mattina



Senior Adviser
Dirk Theobald



Assistant to the Presidency
Laurence Dumont



Quality Audit Service Team Leader
Sergio Semón

QUALITY AUDIT SERVICE

LEGAL UNIT



Assistant to the Legal Unit
Marleen van de Meulebroeke



Secretariat of the Board of Appeal
Anne Gardener



Communications
Lionel Sola



Legal affairs
Montserrat García-Monco Fuente



Legal affairs
Orsola Lamberti



Procurement and logistics
Thierry Cluzeau



Procurement and logistics
Véronique Doreau



Procurement and logistics
Isabelle Lanteri



Procurement and logistics
Manuel Teixeira



Public Relations / Training
Fabienne Santoire

ADMINISTRATION UNIT



Head of the Administration Unit
James Moran



Evaluation / Internal audit and control
Anna Verdini



Information technology
Yohann Larouelle



Accounting
Paul Boderio



Human resources
Cyrille Antoine



Information technology
Alexandru Mihai



Accounting
Anne-Marie Fernandez



Human resources
Valérie De Caestecker



Information technology
Laura Nate



Accounting
Patrick Lecoq



Human resources
Roseline Fagel



Information technology
Marc Rouillard



Accounting
Ekaterina Mantziaris



Human resources
Deirdre Killeen



Information technology
Juan Manuel Sanchez Navas



Accounting
Christophe Yakovleff



Information technology
Sébastien Beugnier

TECHNICAL UNIT



**Head of the
Technical Unit**
Gerhard Schuon



**Deputy Head of the
Technical Unit**
Jean Maisson



**Assistant to the Head of
the Technical Unit**
Aline Nogues



Agricultural species
Anne Weitz



**Biomolecular
techniques**
Cécile Collonnier



Denominations
Carole Bonneau



Denominations
Rudi Caes



Denominations
Bénédicte Legrand



**Fruit and ornamental
species**
Urszula Braun-Milodecka



Ornamental species
Laetitia Denécheau



Ornamental species
Jens Wegner



Vegetable species
Céline Morineau



Register
Pierre-Emmanuel Fouillé



Register
Nadège Grantham



Register
Mathilde Saint-Jean



Technical Unit Assistant
Ghislaine Guilbert



Technical Unit Assistant
Francesca Rampazzi



Technical Unit Assistant
Laurence Theodore

NB: The above organisation chart comprises the staff of the CPVO employed as officials, temporary agents and contract agents on 31 December 2019

7. QUALITY AUDIT SERVICE

The Quality Audit Service (QAS) implements the CPVO's quality audit programme. It carries out regular assessments at EOs to check whether they fulfil the entrustment requirements when testing candidate varieties against the DUS criteria. The assessments relate to any work in relation to DUS activities for species within the EOs' scope of entrustment.

7.1. Assessment of examination offices

A total of six regular assessments were carried out in 2019 between March and September. Some scope-extension requests were also integrated into the regular audits. One surveillance audit was initiated and completed. There were fewer regular assessments carried out in 2019 than had been anticipated in the cycle, this being due to Brexit. Both the EOs from the United Kingdom would normally have been scheduled to be audited during the course of the year, but because of the uncertainty surrounding Brexit, their existing scope of entrustment was extended until November 2019. With the final outcome of Brexit being known at the end of the year, in the end no on-site assessment of the British EOs took place.

The assessment exercises were based on the latest version (3.0) of the entrustment requirements that were adopted at the end of 2015. The assessments carried out in 2019 saw an average of two cases of non-conformity being raised per audit (sometimes more, sometimes less), these being mostly related to the constitution of variety collections and the adherence to DUS testing protocols. For the most part, the pertinent EOs were able to undertake the corresponding remedying action within a few months

The entrustment recommendations in 2019 to the members of the AC were all positive, although one concerned a conditional entrustment for a particular botanical taxon. Five of these related to assessments carried out in the second half of 2018 (AC meeting of March 2019) and another three related assessments carried out in the first half of 2019 (AC meeting of September 2019). The three remaining assessments from 2019 are to be presented as entrustment recommendations to the AC meeting in April 2020.

7.2. Audit programme

The 2019 assessments commenced the fourth audit cycle (2019-2021) since the inception of the programme in 2010. The fact that this new audit cycle was no longer subject to audit fees greatly simplified matters both for the QAS and for all the EOs, since the programming of assessments was no longer constrained by the paying of the audit fee.

With the new audit cycle came the need to appoint a new batch of technical experts to form a QAS team together with the team leader in any given assessment. The new pool of technical experts now comprises 38 individuals from 15 Member States, thereby guaranteeing an ample collection of expertise with an assurance of no conflicts of interest

for the current assessment cycle. It is noteworthy that half of the technical experts are novices in this role, which demonstrates the appeal of the QAS as a positive way to improve DUS testing for the overall benefit of the CPVR system. Building upon the fresh blood and ideas which these new experts will bring to the QAS together with the knowledge of the experienced experts, a 2-day training programme was organised in Paris in April 2019 for all the experts, as well as the case-holders from the CPVO. The training focused on the principles and practices of technical auditing, advances in the CPVR system, trends in non-conformity, building of rapport between experts and proposals for improving the QAS. Whilst most participants valued the training, some areas for improvement in relation to the QAS were identified, the most significant of which was the need to undertake a revision of the entrustment requirements.

The main recommendation from the aforesaid training – to have a revision of the entrustment requirements – stemmed from the identification of various grey areas within the text, which meant the QAS, EOs and the CPVO could interpret the recommendations in various ways. At the CPVO's annual EO meeting in December, an agreement was formally reached to launch a thorough revision of the entrustment requirements, which will be driven by the CPVO technical unit. Throughout 2020, EOs, breeders' organisations and the QAS (including technical experts) will be consulted on ways to improve the entrustment requirements, with the aim to have a draft text ready for presentation at the annual EO meeting in December 2020 and an eventual approval by the AC in spring 2021. If everything goes according to plan a new version of the entrustment requirements will consequently be in place well in advance of the 2022-2024 cycle, when the new requirements will become applicable.

A further selection procedure took place in 2019 in relation to the appointment of substitute QAS team leaders. Seeing as the current QAS team leader is a stand-alone figure with no back-up, a recommendation was made by the CPVO's internal auditor to establish substitutes for this role in order to ensure continuity of service, particularly in case of emergencies. Maintaining the principle of the independence of the QAS in relation to other CPVO services, it was decided to recruit any substitute QAS team leaders from within the current pool of experienced QAS technical experts. A total of six candidates (covering all crop sectors, and ensuring good gender parity and EU geographical distribution) expressed an interest in the role, and these were subsequently appointed by the AC in September. The six substitute QAS team leaders (who will undertake training in the role in 2020) are the following:

- Alexandra Chatzigeorgiou (Greece),
- Antonio Escolano Garcia (Spain),
- Henk de Greef (Netherlands),
- Ivana Rukavina (Croatia),
- Jutta Taferner-Kriegl (Austria),
- Zsolt Szani (Hungary).

The terms of reference of the five members of the Audit Advisory Board of the QAS also came to an end; consequently, a recruitment drive was underway at the end of the year and the beginning of 2020, in order for a new Audit Advisory Board to be formally appointed by the AC in April 2020.

Finally, once the season of regular assessments of EOs was finalised at the beginning of autumn 2019, the expertise of the QAS was solicited for various overseas activities in which the CPVO is involved. Within the CPVO's involvement in the IP Key China project, over the course of 1 week at the end of October, the QAS team leader, together with Henk de Greef (a technical expert), provided training on QAS principles and practices to both the Chinese EOs, the Ministry of Agriculture and Rural Affairs Plant Variety Protection test facilities in Nanjing, and the State Forestry and Grassland administration test facilities in Kunming. Within the CPVO's involvement in the OAPI collaborative project, for 1 week at the end of November, the QAS team leader, together with Georges Sicard (another technical expert), undertook mock assessments of the EOs expected to be utilised by OAPI to carry out DUS testing on its behalf: the Institut de Recherche Agricole pour le Développement in Cameroon and the Institut Sénégalais de Recherches Agricoles in Senegal. It is planned that QAS activities in relation to the OAPI project will continue into 2020.

Table 2: List of QAS qualified technical experts for the 2019-2021 cycle

Technical expert		Organisation	Member State	Crop sector	Already a technical expert in 2015-2018?
Bašta	Ľubomír	Central Controlling and Testing Institute in Agriculture (UKSUP)	SK	agricultural	Yes
Bimova	Pavla	Central Institute for Supervising and Testing in Agriculture (ÚKZÚZ)	CZ	agricultural	No
Bonthuis	Henk		NL	agricultural	Yes
Bravi	Romana	CREA – Plant Protection and Certification (DC) Research Centre	IT	vegetable	No
Cechova	Lydie	ÚKZÚZ	CZ	agricultural	No
Chatzigeorgiou	Alexandra	Ministry of Rural Development and Food	EL	agricultural, vegetable	Yes
Christien	Stéphanie	GEVES	FR	ornamental, vegetable	No
Corbel	Anne-Lise	GEVES	FR	agricultural	Yes
Corsi	Giovanni	CREA-DC	IT	agricultural	No
Csurös	Zoltán	National Food Chain Safety Office (NÉBIH)	HU	agricultural	No
de Greef	Henk		NL	ornamental, vegetable	Yes
De Salvador	Flavio Roberto		IT	fruit	No
Diaz Morant	Miguel	Spanish Plant Variety Office (OEW)	ES	agricultural	Yes

Technical expert		Organisation	Member State	Crop sector	Already a technical expert in 2015-2018?
Dimitrov	Dilyan	Executive Agency for Variety Testing, Field Inspection and Seed Control	BG	agricultural, vegetable	No
Escolano García	Antonio	OEW	ES	agricultural, vegetable	Yes
Giulini	Anna	CREA-DC	IT	agricultural	No
Haegens	Raoul	Naktuinbouw	NL	ornamental, vegetable	No
Hoffman	Marco	Naktuinbouw	NL	fruit, ornamental	No
Kowalczyk	Bogna	Coboru	PL	agricultural, vegetable	Yes
Lawaetz	Erik	Tystofte Foundation	DK	agricultural	No
Leclair	Clarisse	GEVES	FR	agricultural	Yes
Márkné Déak	Szilvia	NÉBIH	HU	fruit, ornamental	No
Menne	Andrea	Bundessortenamt (BSA)	DE	ornamental	Yes
Miceli	Claudia	CREA-DC	IT	agricultural	No
Papworth	Hilary	National Institute of Agricultural Botany (NIAB)	UK	ornamental	Yes
Povolná	Andrea	ÚKZÚZ	CZ	agricultural, fruit	Yes
Riemer	Karin	BSA	DE	agricultural, ornamental	Yes
Rukavina	Ivana	Croatian Centre for Agriculture, Food and Rural Affairs	HR	agricultural	Yes
Schulte	Erik	BSA	DE	fruit	Yes
Scott	Elizabeth	NIAB	UK	agricultural, ornamental	Yes
Sicard	Georges	GEVES	FR	agricultural, vegetable	No
Szani	Zsolt	NÉBIH	HU	agricultural, fruit	Yes
Taferner-Kriegl	Jutta	AGES	AT	agricultural	Yes
Tams	Swenja	BSA	DE	agricultural, fruit, ornamental, vegetable	Yes
Titone	Patrizia	CREA-DC	IT	agricultural	No
Urquia Fernandez	Nuria	OEW	ES	fruit	No
van Dijk	Amanda	Naktuinbouw	NL	ornamental, vegetable	No
van Leeuwen	Marian	Naktuinbouw	NL	vegetable	No

8. RESEARCH AND DEVELOPMENT PROJECTS



Cucumber

In this section, the CPVO provides updated information on the CPVO's R & D sector, on new candidate projects, projects underway and follow-up measures taken in 2019 on projects already concluded.

8.1. Adoption of amended research and development rules

The R & D rules as adopted by the CPVO's Administrative Council in March 2007 and revised in September 2018 set the framework for the co-financing of proposed R & D projects by the CPVO. During 2019 a further revision took place. The 2019 revision had two objectives: firstly, the AC asked the CPVO to provide criteria to be taken into account when proposing the level of co-financing. Such criteria have been introduced into the rules in the amended Article 4. Secondly, it was felt necessary that the R & D rules, being the basis for the internal CPVO procedure for the processing of project proposals, should provide for a step where the CPVO assesses the admissibility of a proposed project. In cases where a project is considered not to be admissible by the CPVO, the following assessments to be made by the crop expert groups and by Imoddis would become obsolete. The amended Article 5 of the rules is now introducing such an assessment of admissibility by the CPVO. The amended version of the R & D rules have been made available on the CPVO's website.

8.2. Revision of the CPVO research and development procedure

The revised R & D procedure includes a revised timeline in relation to the receipt, assessment and decision on R & D project proposals. The procedure became applicable as of 2019 for funding in 2020. To apply for co-funding in a given year, the final project proposal must have reached the CPVO on 1 May of the previous year.

Table 3

Timeline		
1	Recommended date for reception of project proposal (R)	R = 15 March
2	Confirmation of reception	R + 1 week
3	Request to applicant to answer questions and/or complete information or decision on refusal	R + 3 weeks
4	Final proposal (F)	F = 1 May
5	Advice of ad hoc working group for the integration of molecular data into DUS testing and/or expert group	F + 6 weeks
6	Conclusion of Advisory Group	F + 12 weeks
7	Draft decision to be provided to the president	Beginning August
8	Decision of the president (D)	D = week following 15 October
9	Information provided to project coordinator	D + 1 week

Timeline		
10	Financial commitments and contract drafted	D + 2 weeks
11	Contract signed	D + 4 weeks
12	Project started	From 1 January

All applications need to be filed using the template available on the CPVO website.

8.3. Situation as regards candidate research and development projects

In 2019 two new projects were approved for co-funding and will start in 2020.

'Development of an SNP marker set for cannabis to support DUS testing'

Naktuinbouw, as project coordinator, submitted a project proposal called 'Development of an SNP marker set for cannabis to support DUS testing'. CPVO applications for *Cannabis sativa* L. varieties are increasing steadily, particularly those bred for pharmaceutical use. It is particularly demanding in terms of both time and money to import plant material for DUS testing of pharmaceutical varieties, which creates reluctance on the part of titleholders to submit reference varieties.

This project aims at continuing research work already undertaken by Naktuinbouw by identifying an SNP marker set for cannabis. With the information and knowledge gathered in this project, a database could be set up in a follow-up project to deploy a UPOV 'French bean' approach (genetic selection of similar varieties for the first growing cycle) for the choice of the reference varieties to put in the DUS trials. Molecularly similar varieties will be included in the growing trial for a side-by-side comparison carried out on the phenotype. The planned duration of the project is 24 months.

'Harmorescoll'

Harmorescoll is aimed at setting up, at the European level, a coordinated system to give information to interested parties on access to reference material for performing disease tests for DUS according to CPVO protocols and UPOV guidelines. The reference material is constituted of isolates, controls and differentials. The project covers disease resistances which are part of the DUS protocols.

Previous R & D projects showed that harmonisation is one aspect that helps to improve the system and efficiency of the DUS testing. The project aims at setting up the system and is based in a collaborative work between EOs and seed companies with Euroseeds membership. After the end of the project, funding and sustainable maintenance is planned on a self-financing basis. The project is coordinated by GEVES and Naktuinbouw and is scheduled for 3 years.



Melon



Oilseed rape

8.4. Situation as regards ongoing research and development projects

‘Developing a strategy to apply SNP molecular markers in the framework of winter oilseed rape DUS testing’

Based on a first project called ‘Test of the potential use of SNP markers on oilseed rape varieties’, this follow-up project was approved in March 2019 for a duration of 24 months. In the first project, GEVES and NIAB selected and tested on different matrices a set of 500 SNP markers to design reliable KASPar assays and confirmed the possibility of reliably using bulk samples of seeds in rapeseed. In this project, they continue the work to produce large and consistent molecular data sets on a wide number of winter oilseed rape varieties in order to reach an optimised SNP set.

In collaboration with Germany, existing UPOV models and newly developed ones will be tested to use these markers for DUS. The approaches will be tested on the two different testing systems, GAIA in France and COY in Germany. The final results will be presented and discussed with experts from all entrusted EOs which were also partners to the pre-project. If the results are successful, a second follow-up project would extend the genotyping to the whole collection and aim to validate and to apply the model chosen in the field. That implementation phase would include all entrusted EOs.

‘Setting up of a database with the descriptions and photos of melon varieties of common knowledge. Setting up of a management system for this database that can be used as a blueprint for comparable future databases’

The project, coordinated by Naktuinbouw, aims at developing a common database containing administrative data, variety descriptions and photos stored within all the CPVO’s entrusted EOs for melon (Naktuinbouw, GEVES, the Spanish National Institute for Agricultural and Food Research and Technology (INIA), UKSUP and the Portuguese National Authority for Animal Health (DGAV)). This database should facilitate the maintenance of

variety collections through the storage of updated information on maintainers of varieties of common knowledge and support DUS testing by increasing the virtual variety collection (with the limitation that the description scales will not be harmonised between partner countries).

The proposal was approved in December 2017 for a duration of 2 years starting from January 2018. Due to some staff changes delaying the work, Naktuinbouw requested an extension of 1 year and the final report will be delivered in March 2021. The structure of the database has been agreed upon by all partners and the partners have started feeding it.

‘Integration of molecular data into DUS testing in durum wheat’

This project started in 2018. The objective is to combine genotypic and phenotypic data to optimise the reference collection management by investigating the use of SNP markers of a commercial DNA chip.

The coordinator is the Austrian EO AGES. The project partners are INIA, GEVES, CREA and NÉBIH. A first meeting took place in June 2018 in Vienna and a second meeting in June 2019 at the Italian testing station. Promising results were obtained demonstrating the applicability of the method. The final report is expected in 2020.

‘Developing molecular markers allowing the distinction of apple mutants’

The objective of this project is to identify genetic and epigenetic markers that can be correlated to the fruit phenotype. Investigations will focus on Gala mutants. If the results from the first 2 years are successful, these selected markers will be used to test the stability across tree ages, sites and years for different varieties in a follow-up project. Ultimately, this project aims to produce a collection of genetic and/or epigenetic markers allowing the prediction of apple traits and the distinction of mutants with well-defined thresholds at a very early stage (fresh grafts, before fruits appear).



In vitro culture



Pelargonium

Investigations started as to the colour phenotyping assessment methods on the basis of seven Gala mutant varieties selected for their diversity in colour and pattern. Genotyping took place for these seven Gala mutants and results need to be analysed. The project has been extended for 1 year as a consequence of staff changes; the budget remains the same.

‘International validation of an SNP set to determine genetic distances for the management of tomato reference collection’

A new proposal entitled ‘International validation of an SNP set to determine genetic distances for the management of tomato reference collection’ was agreed for co-funding in February 2019. The project aims at validating, between all EOs entrusted for tomato (Naktuinbouw, GEVES, Coboru, NÉBIH, INIA, DGAV and CREA), a set of markers adapted to the management of the reference collections in the framework of the UPOV French bean approach (genetic selection of similar varieties for the first growing cycle). If successful, a follow-up project could be built for the characterisation of all of the collections. The coordination is ensured by Naktuinbouw. The Beijing Sub-Centre for DUS Testing in China, the Korean Seed and Variety Service, and the National Centre for Seeds and Seedlings in Japan are involved and participate in the project on their own funding. Euroseeds is also partner to the project. The kick-off meeting took place in December 2019 in the Netherlands. Results are expected to be available in 2021.

8.5. Finalised research and development projects

‘Ring tests for strawberry’

The year 2019 was the last year of the project. The participants, which are the CPVO, BSA, Coboru, DGAV, OEW and the breeders’ representative (Ciopora) met during a final meeting in Wurzen, Germany, in September. A summary of observations of eight commonly known varieties grown in four testing sites across the EU in 2016-2018 and discussions during field visits were presented. The project resulted in numerous recommendations on characteristics, methods of observation and example varieties for the purpose of revision of the TP.

The project confirmed that a ring test is a very useful tool to raise awareness of existing differences in interpretation of individual characteristics and the reasons for the differences, to enhance harmonisation of DUS testing and to elaborate on the revision of the TP.

The final report of the project was prepared and will be made available in the course of 2020.

'Case study on minimum distances between *Pelargonium* varieties'

This project was approved in October 2018. It is a follow-up project to an earlier study on minimum distances between vegetatively reproduced ornamental and fruit varieties. The initial project consisted of a reassessment of 50 varieties already granted CPVRs using fewer characteristics. Ciopora expressed concern about shrinking distances between varieties to the point that in trade some varieties can no longer be distinguished from each other. The result of the earlier case study, which did not involve observations on real plants, but was conducted as a paper study, did not give a clear picture of the feasibility of the Ciopora approach to establish distinctness with fewer characteristics.

For the present project, Ciopora had preselected seven pairs of *Pelargonium* varieties and one group of three *Pelargonium* varieties, which have a similar phenotype – a total of 14 varieties. All of these varieties are or were protected by a CPVR. These seven pairs of varieties were grown in a trial at the BSA and their distinctness has been re-evaluated and discussed on the basis of the mock protocol. On 11 July 2019, on the occasion of an on-site visit to the growing trials at the BSA, Ciopora and the breeders discussed jointly with the BSA and the CPVO a possible re-evaluation of the characteristics used to establish distinctness between varieties.

The meeting of 11 July demonstrated that the variety pairs chosen were indeed very similar but the breeders concluded unanimously that six out of seven pairs were to be regarded as clearly distinct. One pair was regarded as a borderline case. The meeting confirmed the suitability of the TP.

'Harmonisation of tests of resistance to diseases for DUS testing III' (Harmores III)

This project was composed of two parts with a total duration of 3 years (2017-2019). Part 1 (duration of 1 year) was approved in June 2016; an annual meeting for the project partners took place at the GEVES headquarters in May 2017 in France and the final report was delivered to the CPVO in November 2017. Part 2 (duration of 2 years) was approved in October 2016 and formally started in November 2017 straight after the finalisation of Part 1 of the project.

This project, which is a follow-up to two previous projects (Harmores I and II), was coordinated by GEVES, with the following project partners: Naktuinbouw, INIA, ÚKZÚZ, NÉBIH, CREA, Science and Advice for Scottish Agriculture, the Centre Technique Interprofessionnel des Fruits et Légumes and Euroseeds.

The project aimed to harmonise the resistance tests in terms of reference material (isolates and varieties), test conditions and notation scales, and proposed new harmonised and robust protocols to the CPVO for subsequent adoption into the TPs of the species in question. A focus for the Harmores III project is on intermediate resistance, a topic which makes it more challenging than the previous projects, but for which harmonised protocols and reproducible results are of great importance.

The project aimed to harmonise, at the EU level, resistance tests for seven vegetable diseases:

- *Meloidogyne incognita* (in tomato),
- *Fusarium oxysporum* f. sp. *lycopersici* race 0 (ex. 1) (in tomato),
- *Fusarium oxysporum* f. sp. *lycopersici* race 1 (ex. 2) (in tomato),
- *Erysiphe pisi* (in pea),
- *Podosphaera xanthii* (in melon),
- *Fusarium oxysporum* f. sp. *melonis* race 1.2 (in melon),
- *Fusarium oxysporum* f. sp. *melonis* race 2 (in melon).

The final meeting took place in May 2019 in Angers, France. The new protocols to test the resistance to the pathogens indicated hereinabove have been included in the CPVO TPs, which will be presented to the AC for approval in April 2020.

8.6. The CPVO as a partner in the Horizon 2020 Invite project

The 'INnovations in plant Variety Testing in Europe' (Invite) project is one of the two laureates of the SFS-29-2018 call 'Innovations in plant variety testing' of the Horizon 2020 programme. It includes 29 partners from the areas of research, breeding, DUS examination and performance testing for both conventional and organic farming. It aims at improving efficiency of variety testing and availability of information to stakeholders on variety performances under diversified production conditions and on biotic and abiotic stresses for 10 crops (maize, wheat, ryegrass, sunflower, potato, tomato, apple, lucerne, soybean and rapeseed). DUS and performance testing are addressed in a balanced way to maximise synergies through related activities involving phenotyping, genotyping, modelling and database management.

In May and June 2019, all beneficiaries signed both the consortium agreement and the grant agreement. The project started on 1 July 2019 should last 5 years and will benefit from financial support from the European Commission of EUR 8 million. The kick-off meeting took place in July 2019 in Angers, France and started with a day dedicated to stakeholders on the theme of phenotyping, with presentations of new-generation tools adapted to arable crops and fruit trees.

Invite collaborates with the second laureate of the SFS 29-2018 call, called InnoVar. This project will focus on the development of a machine-learning approach based on genomic, phenotypic and agronomic data for the optimisation of variety testing in wheat. A first meeting between the coordinators of both consortia happened in Northern Ireland in April 2019 and was followed by the signing of a memorandum of understanding framing the interaction between the two projects. Representatives of Invite, including the CPVO, attended InnoVar's kick-off meeting in October 2019 in Belfast.

9. BUDGET

9.1. Out-turn

The budget out-turn for 2019 remains more or less stable compared to 2018 with a slight increase of annual fees. A decrease in administrative expenditure also contributed to the stability of the budget out-turn.

Table 4

Net out-turn for the year 2019		(million EUR)
Budgetary revenue (a)		17.72
Budgetary expenses (b)		16.37
Budgetary out-turn (c) = (a) – (b)		1.35
Non-budgetary receipts (d)		0.07
Net out-turn for the budgetary year 2019 (e) = (c) + (d)		1.42

The net out-turn for the year was approximately EUR 1.42 million positive and stable compared to the previous year showing a net out-turn of EUR 1.3 million.

9.2. Revenue

The CPVO's revenue comprises various fees paid by clients applying for CPVRs and holders of CPVRs, other revenue (from administrative operations) and income from interest on bank accounts. The total revenue collected in 2019 was EUR 17.72 million.

Table 5

	Variation (%)	2019 (million EUR)	2018 (million EUR)
Fees	+ 0.97	17.67	17.50
Bank interest	0.00	0.03	0.03
Other revenue	– 80.00	0.02	0.10
Total revenue	+ 0.51	17.72	17.63

The total fees received in 2019 amounted to EUR 17.67 million, representing a small increase of 0.97 % in comparison to the previous year. The amount received for fees is rather stable and the increase is mainly due to a higher amount received for annual fees. The decrease of 80 % in the other revenue comes from the discontinuation of the audit fees.

Bank interest continued to fall with rates at an extremely low level; furthermore, the CPVO does not accept negative interests.

9.3. Expenditure

In 2019, the total amount of recorded expenditure and commitments carried over was EUR 16.37 million, compared with EUR 16.42 million in 2018.

Table 6

	Variation (%)	2019 (million EUR)	2018 (million EUR)
Staff expenditure	6.51	7.52	7.06
Administrative expenditure	- 0.77	1.29	1.30
Operational expenditure	- 6.20	7.56	8.06
Total expenditure	- 0.24	16.37	16.42

The salary grid for the staff of the CPVO, being governed by the levels set by the Council of the European Union, is also subject to changes in line with inflation and career progression.

Continuous efforts have been made to maintain the level of the administrative expenditure: the amounts remain stable in 2019 compared to 2018.

Operational expenditure consists mainly of remuneration for EOs. The decrease in payments, particularly for examination office fees, is related to timing issues. Payments in a given year are a reflection of commitments made in earlier years and also dependent on receipt of invoices at year-end.

9.4. Conclusion

The net results of 2019 and 2018 are more or less equivalent with a slight difference of EUR 0.05 million.

10. DEVELOPMENTS IN THE SYSTEM

10.1. Regulatory

10.1.1. New fees regulation

By Commission implementing Regulation (EU) 2019/1978 of 26 November 2019, Commission regulation (EC) No 1238/95 of 31 May 1995 as regards the fees payable to the CPVO (the fees regulation) has been amended⁽¹⁾. The new fees regulation establishes a reduced fee of EUR 450 for processing applications filed via the web form by electronic means, made through the CPVO's online application system. In order to benefit from the application fee of EUR 450, applicants shall accept the terms and conditions of use of the electronic communications platform of the CPVO and use that platform for any communications to and from the CPVO. For applications submitted by means other than through the CPVO's online application system, the applicants shall pay a fee of EUR 800.

The new fees regulation shall apply from 1 April 2020.

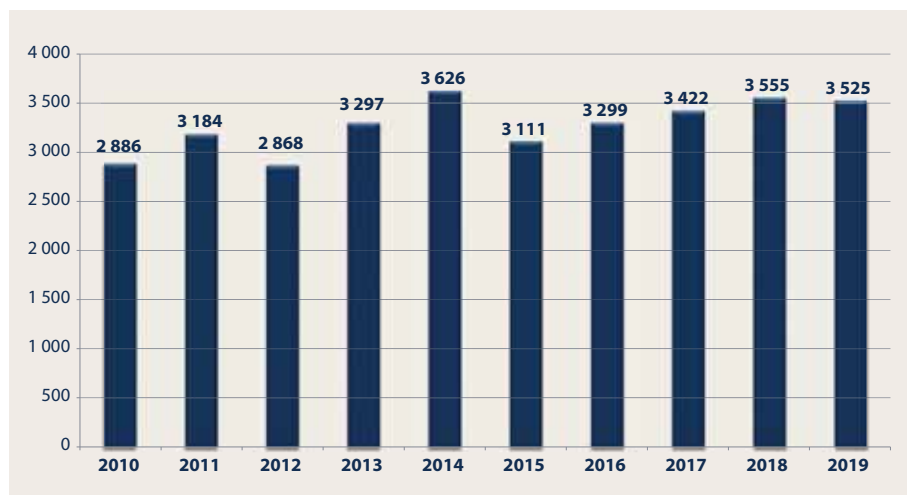
10.2. Technical

10.2.1. Applications for Community plant variety protection

In 2019 the CPVO received 3 525 applications for Community PVP, which represents a decrease of 0.8 % compared to the previous year. Figure 1 shows the evolution of the number of applications received by the CPVO (all figures are based on the date of arrival of the application documents at the CPVO). This is the second-highest number in the history of the CPVO. During the first 10 years, the CPVO observed a growing number of applications each year (figures not shown). Since then, the application numbers seem to have stabilised; the annual changes are probably not to be understood as a trend but rather as chance fluctuations.

Figure 1

Evolution of the annual number of applications for Community plant variety protection (2010-2019)



⁽¹⁾ Official Journal of the European Union L 308/60 of 29.11.2019.

Figure 2 represents the shares of the crop sectors in relation to the number of applications received in 2019.

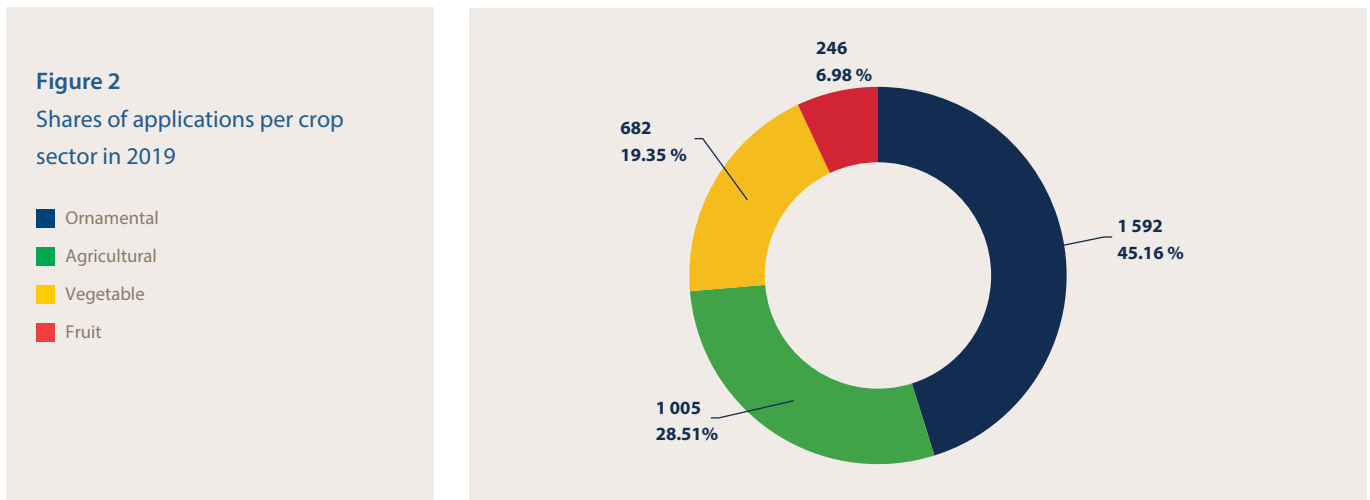
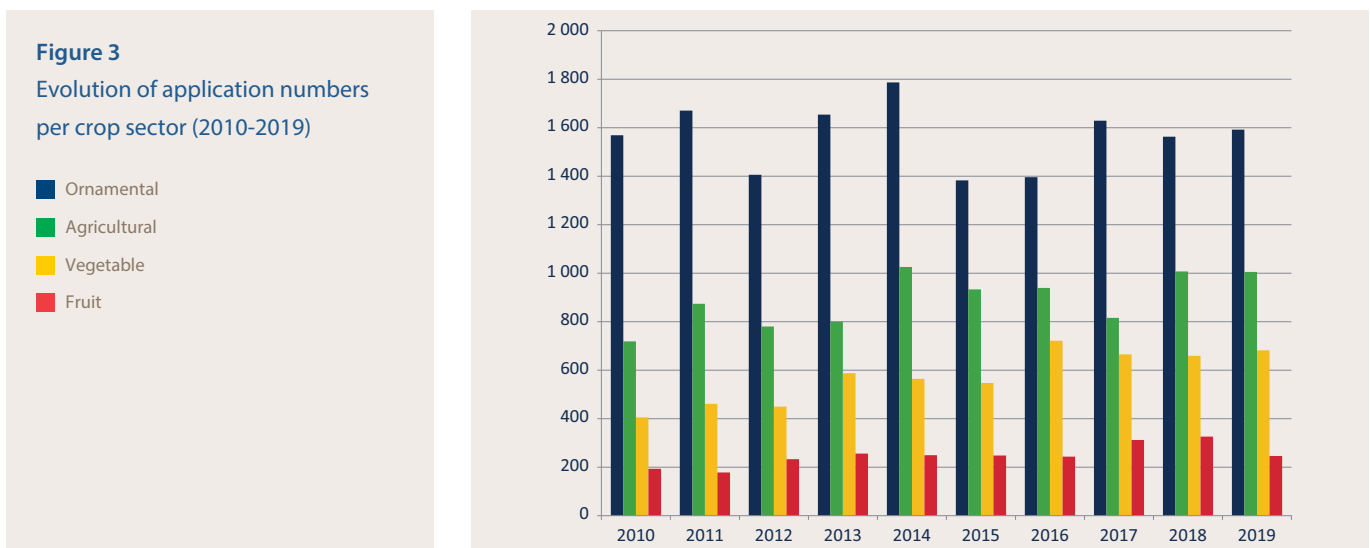


Figure 3 shows the evolution of the number of applications per crop sector since 2010. Despite the fact that the total number of applications shows only minor variation from year to year, the variation within the four crop sectors may be more important. In 2019, the CPVO observed an increase in application numbers in the ornamental sector with + 29 applications (+ 1.8 %) and in the vegetable sector with + 23 applications (+ 3.4 %). The other sectors showed a decrease: in the fruit sector – 80 applications (– 24.5 %) and in the agricultural sector – 2 applications (– 0.2 %).



Applicants

In 2019, 683 applicants filed applications for CPVRs, 11 more than in 2018. The following tables list, for each crop sector, the 15 most frequent users of the Community system and their respective numbers of applications filed in 2019. These top 15 applicants have a relative share of applications ranging, similarly to last year, from 88.2 % for vegetables, 54.8 % for agricultural and 45.9 % for fruit species, to as little as 37.5 % for ornamental species. This range not only reflects the degree of concentration in breeding, which is particularly advanced in the vegetable sector, but also shows that, in the case of ornamentals, a great number of 'small' breeders are in business and seeking protection for their varieties. The figures do not take into account possible controlling agreements between companies; the actual level of concentration may thus be higher.

Table 7: Agricultural sector

Top 15 applicants	Country	Number of applications in 2019
Pioneer Overseas Corporation	United States	87
KWS SAAT SE & Co KGaA	Germany	66
Deutsche Saatveredelung AG	Germany	64
Agrigenetics Inc. d/b/a Mycogen Seeds	United States	41
Limagrain Europe SAS	France	38
RAGT 2n SAS	France	37
DLF Seeds A/S	Denmark	33
Monsanto Technology LLC	United States	31
Syngenta Participations AG	Switzerland	24
Pioneer Hi-Bred International Inc.	United States	23
Caussade Semences SA	France	23
KWS Momont Recherche SARL	France	23
Euralis Semences SAS	France	23
Norddeutsche Pflanzenzucht Hans-Georg Lembke KG	Germany	20
Mas Seeds SA	France	18
Total		551

Table 8: Vegetable sector

Top 15 applicants	Country	Number of applications in 2019
Enza Zaden Beheer BV	Netherlands	112
Monsanto Vegetable IP Management BV	Netherlands	104
Rijk Zwaan Zaadteelt en Zaadhandel BV	Netherlands	100
Syngenta Participations AG	Switzerland	63
Vilmorin SA	France	56
HM.Clause SA	France	39

Top 15 applicants	Country	Number of applications in 2019
Nunhems BV	Netherlands	37
Sakata Vegetables Europe SAS	France	28
Bejo Zaden BV	Netherlands	16
Maraldi Sementi SRL	Italy	10
Semillas Fitó SA	Spain	9
De Groot en Slot Allium BV	Netherlands	9
HM.Clause Inc.	United States	7
BreedX Ltd	Israel	6
Gana Seeds Co. Ltd	South Korea	6
Total		602

Table 9: Fruit sector

Top 15 applicants	Country	Number of applications in 2019
Driscoll's Inc.	United States	19
Agro Selections Fruits SAS	France	11
Institut de Recerca i Tecnologia Agroalimentàries	Spain	10
Florida Foundation Seed Producers Inc. (Marianna Office)	United States	8
Instituto Valenciano de Investigaciones Agrarias	Spain	8
Marionnet SAS	France	7
Sun World International LLC	United States	7
Plantas de Navarra SA – Sociedad Unipersonal	Spain	6
International Plant Selection SARL	France	6
Next Progeny Pty Ltd	Australia	6
Changsha Yanoon BioTech Co Ltd	China	6
Michael Neumüller	Germany	5
Viveros Provedo SA	Spain	5
VIF SARL	France	5
Plant Sciences Inc.	United States	4
Total		113

Table 10: Ornamental sector

Top 15 applicants	Country	Number of applications in 2019
Dümmen Group BV	Netherlands	104
Anthura BV	Netherlands	93
Klemm + Sohn GmbH & Co KG	Germany	50
Microflor NV	Belgium	41
Floricultura BV	Netherlands	36
W. Kordes' Söhne Rosenschulen GmbH & Co KG	Germany	35
Paraty BVBA	Belgium	34
Syngenta Participations AG	Switzerland	32
Piet Schreurs Holding BV	Netherlands	28
Poulsen Roser A/S	Denmark	28
Deliflor Royalties BV	Netherlands	27
Syngenta Crop Protection AG	Switzerland	25
Van Zanten Breeding BV	Netherlands	23
Ball Horticultural Company	United States	22
Florist Holland BV	Netherlands	20
Total		598

Applicants from outside the EU must appoint a representative with a registered office or domicile within the EU to handle their applications. Sometimes, mother companies located outside the EU appoint their daughter company in the EU; this is the case for Pioneer or Syngenta. EU applicants do not have such an obligation; however, some of them prefer to outsource the application procedure to an external agent. In 2019, 1 433 applications (40.6 %) were filed by 165 procedural representatives. The following table lists the 15 most active procedural representatives for 2019, having submitted 891 applications in total (in 2018, 943 applications were submitted by the 15 most active procedural representatives).

Table 11

Name of procedural representative	Country	Number of applications in 2019
Royalty Administration International CV	Netherlands	236
Pioneer Génétique SARL	France	138
Syngenta Seeds BV	Netherlands	126
Hortis Holland BV	Netherlands	64
Plantipp BV	Netherlands	46
Hans-Gerd Seifert	Germany	45
Deutsche Saatgutgesellschaft mbH Berlin	Germany	40
WürttembergKunze	Germany	38
Ronald Houtman Sortimentsadvies	Netherlands	32

Name of procedural representative	Country	Number of applications in 2019
Monsanto SAS	France	24
Syngenta France SAS	France	24
Van Vliet New Plants BV	Netherlands	22
Elzaburu SLP	Spain	21
Limagrain Europe SAS	France	18
Limagrain Nederland BV	Netherlands	17
Total		891

10.2.1.1. Ornamental species

With 45 % of the applications received in 2019, ornamentals continue to represent the largest group of applications filed for CPVRs. In 2019 there were 29 more applications received than in the previous year.

A particularity of ornamentals is the great diversity of species. In all years, there were for many of them a rather low number of applications per species.

Table 12: Number of applications received per year for all ornamental species since 2015, with a total covering 1995-2019

	2015	2016	2017	2018	2019	Total (1995-2019)
All ornamental species	1 383	1 396	1 629	1 563	1 592	37 186

Table 13 shows the 10 most important ornamental crops over the last 5 years (the term 'importance' is always used in this text to refer to the number of applications received). Changes in the importance of most of these crops seem to be rather accidental. Roses and chrysanthemums remained by far the most important species in 2019. Since 2017, the application number for *Phalaenopsis* varieties has easily exceeded 100 per year.



Lillium



Calibrachoa

Table 13: Number of applications received for the 10 most important ornamental species groups from 2015 to 2019, with a total covering 1995-2019

Species	2015	2016	2017	2018	2019	Total (1995-2019)
<i>Rosa</i> L.	161	185	169	242	175	4 628
<i>Chrysanthemum</i> L.	100	117	148	140	121	3 745
<i>Pelargonium</i> L'Hér. ex Aiton	51	43	33	53	56	1 679
<i>Calibrachoa</i> Llave & Lex. and <i>Petunia</i> Juss.	80	50	104	78	50	1 569
<i>Lilium</i> L.	58	50	36	35	21	1 321
<i>Phalaenopsis</i> Blume and <i>x Doritaenopsis</i> hort.	41	48	134	112	151	1 243
<i>Gerbera</i> L.	39	30	30	54	44	1 194
<i>Dianthus</i> L. and hybrids	26	35	60	35	40	1 055
<i>Impatiens</i> L. and hybrids	19	10	12	12	16	994
<i>Anthurium</i> Schott	34	30	25	15	30	839
Total	609	598	751	776	704	

The CPVO may base its decision to grant CPVRs on a technical examination carried out under a previous application for either PBR or national listing and where the DUS examination has been carried out at an entrusted EO. Such a takeover of reports concerns less than 5 % of ornamentals, which is a considerably lower percentage than for the vegetable or agricultural sectors and is due to the absence of any requirement for listing before commercialising ornamental varieties.

10.2.1.2. Agricultural species

The year 2019 showed a stable number of applications in comparison with 2018. In 2019 agricultural varieties represented 28.5 % of all applications. The number of applications received for 2019 (1 005) is the third highest ever received in that sector.



Wheat



Maize

Table 14 shows the number of applications received per year over all agricultural species since 2015, as well as the total figure for the years 1995-2019.

Table 14: Number of applications received per year for all agricultural species since 2015, with a total covering 1995-2019

	2015	2016	2017	2018	2019	Total (1995-2019)
All agricultural species	933	939	816	1 007	1 005	17 116

Table 15 shows the number of applications for the 10 most important agricultural species for the last 5 years.

Table 15: Number of applications for the 10 most important agricultural species from 2015 to 2019, with a total covering 1995-2019

Species	2015	2016	2017	2018	2019	Total (1995-2019)
<i>Zea mays</i> L.	299	201	177	262	229	5 010
<i>Triticum aestivum</i> L. emend. Fiori & Paol.	113	153	124	152	150	2 174
<i>Solanum tuberosum</i> L.	59	79	71	84	68	1 733
<i>Brassica napus</i> L. emend. Metzg.	127	126	94	103	120	1 680
<i>Hordeum vulgare</i> L.	78	69	72	93	100	1 466
<i>Helianthus annuus</i> L.	61	86	53	59	40	1 109
<i>Beta vulgaris</i> L. ssp. <i>vulgaris</i> var. <i>altissima</i> Döll	18	14	20	19	46	404
<i>Lolium perenne</i> L.	17	21	9	19	0	364
<i>Triticum turgidum</i> L. subsp. <i>durum</i> (Desf.) Husn.	7	26	16	22	13	352
<i>Pisum sativum</i> L.	8	12	11	0	0	282
Total	787	787	647	813	766	

In the long term, the order of the species is essentially unchanged. The increase in oilseed rape may be explained by the higher number of hybrids in this species and by the fact that parent lines are also subject to applications for CPVR.

The ratio of takeover of reports to technical examinations also remains stable. Since most of the applications are filed once the DUS report has been established in the framework of applications for national listing, the duration between application and granting is rather short, compared to applications where a technical examination needs to be organised, which takes generally two growing cycles for agricultural species.

Figure 4

Evolution of the percentage of the ratio of technical examinations to takeovers of DUS reports in the agricultural sector (2015-2019)

■ Technical examinations
■ Take overs



10.2.1.3. Vegetable species

The year 2019 showed an increase of 3.49 % in the number of applications in comparison with the previous year, the second highest ever. Vegetable varieties represented 19 % of all applications in 2019, which means that the share of this sector amongst all CPVR applications has increased over time compared to the 16 % share it had a decade earlier. The distribution of applications in vegetable species in recent years is displayed in Table 16.

Table 16: Number of applications received per year for all vegetable species since 2015, with a total covering 1995-2019

	2015	2016	2017	2018	2019	Total (1995-2019)
All vegetable species	547	721	665	659	682	9 779

Table 17 shows the number of applications for the 10 most important vegetable species for the last 5 years.



Pepper



Lettuce

Table 17: Number of applications for the 10 most important vegetable species from 2015 to 2019, with a total covering 1995-2019

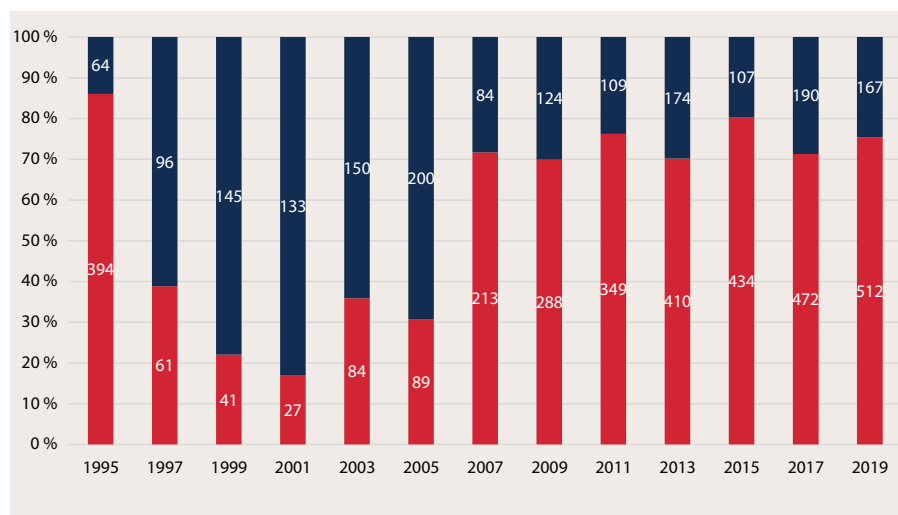
Species	2015	2016	2017	2018	2019	Total (1995-2019)
<i>Lactuca sativa</i> L.	141	192	183	248	180	2 694
<i>Solanum lycopersicum</i> L.	134	127	161	116	150	1 496
<i>Capsicum annuum</i> L.	49	65	47	47	61	635
<i>Cucumis melo</i> L.	42	80	46	30	63	531
<i>Phaseolus vulgaris</i> L.	8	13	11	27	12	520
<i>Pisum sativum</i> L.	20	13	16	28	28	490
<i>Cucumis sativus</i> L.	28	45	32	37	21	435
<i>Brassica oleracea</i> L. convar. <i>botrytis</i> (L.) Alef. var. <i>botrytis</i>	3	5	1	7	4	239
<i>Cichorium endivia</i> L.	10	10	8	8	6	202
<i>Allium cepa</i> (Cepa group)	10	25	8	6	10	201
Total	445	575	513	554	535	

The probable main reason as to why there has been an upsurge in CPVR vegetable applications in recent years is that vegetable breeders are now increasingly seeking dual listing/protection for many varieties. In the past, for the majority of commercial varieties, breeders would have applied for national listing only, with a subsequent entry in the EU common catalogue. Nowadays we can see that there is a more systematic and pragmatic approach by vegetable breeders, with a national listing/national PBR application made initially and shortly afterwards an application being filed at the CPVO for the same variety. In such instances, the CPVO is expected to be able to take over the technical report for the candidate variety from the national EO. For vegetable applications received in 2019, the CPVO requested 167 technical examinations to be carried out on its behalf and took over 512 technical reports from national authorities (Figure 5).

Figure 5

Evolution of the number of applications and the percentage of the ratio of technical examinations to takeovers of DUS reports in the vegetable sector (1995-2019) (every other year shown)

- Technical examinations
- Takeovers
- Number of applications



10.2.1.4. Fruit species

The number of fruit CPVR applications decreased in 2019. With 80 applications fewer than in 2018, it was the 5th-best year in the fruit sector. The top three species in the history of the CPVO until 2019 remained peach, strawberry and apple; the highest number of applications received in 2019 was for strawberry (53) followed by peach (34) and raspberry (27). Most applications in the fruit sector are made for 'small fruit' crops. For peach, 2019 was the 2nd year with a lower number of applications than the previous few years.

Table 18: Number of applications received per year for all fruit species since 2015, with a total covering 1995-2019

	2015	2016	2017	2018	2019	Total (1995-2019)
All fruit species	248	243	312	326	246	4 525

Table 19 shows the number of applications for the 10 most important fruit species for the last 5 years.

Table 19: Number of applications for the 10 most important fruit species from 2015 to 2019, with a total covering 1995-2019

Species	2015	2016	2017	2018	2019	Total (1995-2019)
<i>Prunus persica</i> (L.) Batsch	45	48	52	21	34	996
<i>Fragaria x ananassa</i> Duchesne ex Rozier	35	26	44	37	53	695
<i>Malus domestica</i> Borkh.	19	42	36	27	23	573
<i>Vitis</i> L.	24	16	34	50	14	319
<i>Prunus armeniaca</i> L.	17	24	16	8	10	314
<i>Rubus idaeus</i> L.	11	13	27	22	27	239
<i>Vaccinium</i> L.	13	10	22	36	20	222
<i>Prunus salicina</i> Lindl.	10	7	7	7	8	142
<i>Prunus avium</i> (L.) L.	9	4	6	12	8	136
<i>Pyrus communis</i> L.	2	2	5	5	3	88
Total	185	192	249	225	200	



Apricot



Strawberry

10.2.1.5. Origin of the applications

Since the creation of the CPVO, applications have been received from 70 countries. Nearly every year more than one third of all applications received have originated from the Netherlands, underpinning the important role of the Dutch in the breeding sector. The Netherlands is followed, quite some distance behind, by Germany, France and the United States. In 2019 only minor fluctuations were observed in the origin of applications. Table 20 gives an overview of the number of applications received from different Member States in 2019.

Table 20: Member States from which CPVR applications were filed in 2019

Member State of main applicant	Number of applications received in 2019
Netherlands	1 216
Germany	504
France	473
Spain	128
Denmark	120
Belgium	111
Italy	110
United Kingdom	92
Austria	31
Poland	24
Czechia	16
Sweden	7
Finland	5
Hungary	4
Ireland	4
Latvia	2
Romania	2
Slovenia	2
Greece	1
Slovakia	1
Total	2 853

Table 21 shows the application numbers from countries outside the EU.

Table 21: Non-EU countries from which CPVR applications were filed in 2019

Country of main applicant	Number of applications received in 2019
United States	343
Switzerland	160
Japan	36
Israel	29
Australia	23

Country of main applicant	Number of applications received in 2019
New Zealand	14
South Korea	12
Colombia	11
China	10
South Africa	10
Argentina	6
Brazil	5
India	5
Canada	2
Costa Rica	2
Belarus	1
Chile	1
Sri Lanka	1
Ukraine	1
Total	672

10.2.2. Grants of protection

In 2019 the CPVO granted 3 188 titles for Community PVP – a record. As the number of applications seems to be stabilising, one may predict stable numbers of grants issued. A detailed list of all varieties under protection (as of 31 December 2019) is published on the CPVO website in the separate annex to this report.

By the end of 2019 there were 28 230 CPVRs in force. Figure 6 shows the number of titles granted each year from 2010 to 2019 and illustrates the continuous increase in the number of varieties under protection within the Community system, which is due to the fact that the number of rights terminated is still below the number of rights granted; in the long run an equilibrium can be expected.

Figure 6

CPVRs granted per year and total number of rights in force at the end of each year (2010-2019)

- Titles granted
- Rights in force at the end of each year
- Linear progression (of rights in force at the end of each year)



The development of the number of CPVRs in force must be seen in conjunction with the number of rights surrendered (Figure 7). The number of rights granted still greatly outweighs the number of surrenders. As older varieties are replaced by newer ones, the number of surrenders is expected to approach closer to the number of grants. The regular increase in the number of surrenders is therefore not a surprise. Nevertheless, the number of surrenders decreased in the last 2 years. No research has been conducted to identify the reasons for greater deviations from the linear trend; they might be associated with ups and downs in the economic conditions, mergers of companies and a subsequent consolidation of the variety portfolio or changes in the size of the annual fee to be paid to keep a right in force.

Figure 7
Number of surrenders of CPVRs
(2010-2019)

■ Number of surrenders registered
◆ Percentages of surrenders per year out of total number of rights in force on 31 December of previous year

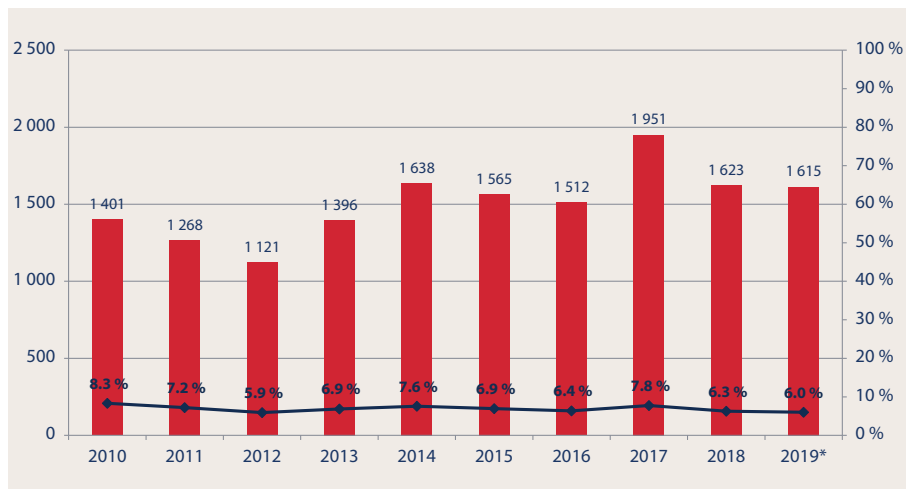
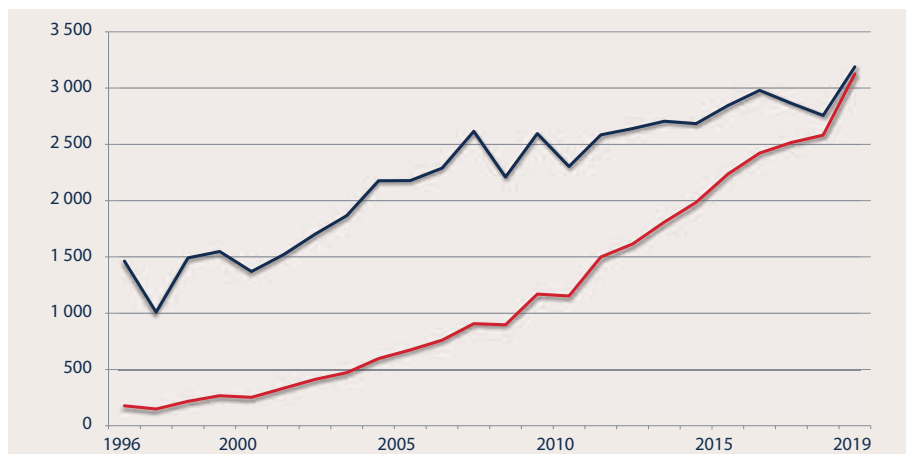


Figure 8 shows the number of rights granted in the years 1996 to 2019 and those still in force on 31 December 2019. A large number of rights are surrendered within a few years. The CPVR system is still too new to be able to say how many varieties will actually enjoy their full term of protection of 25 or 30 years. However, figures suggest that it will be a relatively small percentage of all the varieties once protected. This also suggests that the current period of protection might generally be quite well adapted to the needs of breeders.

Figure 8
Number of rights granted each year from 1996 to 2019 and those remaining in force on 31 December 2019 from those granted per year

— Number of rights granted
— Number of rights remaining in force



At the end of 2019, out of the 53 583 rights granted in total, 28 230 (52.7 %) were still in force. Table 22 illustrates that fruit varieties are generally kept protected for a longer period and that, within each crop sector, the situation varies from species to species. There might be a number of reasons for this phenomenon, such as a change in consumer preferences, breeding trends, differences in intensity of breeding activities, the time and expense required to develop new varieties or a recent boom in plant breeding.

Table 22: Percentage of granted rights that were still in force on 31 December 2019

Crop sector	Species	Proportion (%)
Agricultural		58
	<i>Hordeum vulgare</i> L.	49
	<i>Zea mays</i> L.	55
	<i>Triticum aestivum</i> L. emend. Fiori & Paol.	55
	<i>Solanum tuberosum</i> L.	62
	<i>Festuca rubra</i> L.	71
Vegetable		63
	<i>Cichorium endivia</i> L.	53
	<i>Lactuca sativa</i> L.	58
	<i>Solanum lycopersicum</i> L.	71
	<i>Capsicum annuum</i> L.	72
	<i>Daucus carota</i> L.	78
Ornamental		45
	<i>Gerbera</i> L.	21
	<i>Chrysanthemum</i> L.	39
	<i>Rosa</i> L.	46
	<i>Phalaenopsis</i> Blume & <i>Doritaenopsis</i> hort.	70
	<i>Clematis</i> L.	81
Fruit		76
	<i>Fragaria x ananassa</i> Duch.	59
	<i>Prunus persica</i> (L.) Batsch	64
	<i>Malus domestica</i> Borkh.	73
	<i>Prunus domestica</i> L.	75
	<i>Prunus avium</i> (L.) L.	86

10.2.3. Technical examinations

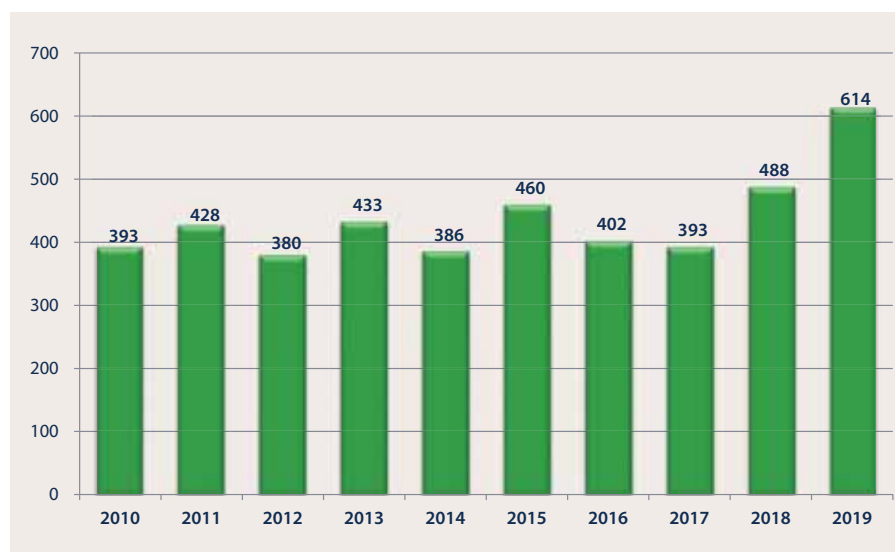
In 2019 the CPVO initiated 2 073 technical examinations, 52 more than in 2018. In the agricultural sector, a large number of technical examinations have already been carried out as part of the national listing procedure. If such a technical examination has been carried out by an entrusted EO, the CPVO can base its decision to grant CPVRs on this technical examination in the context of a national application.

10.2.3.1. Sales of reports

National PVR authorities from all over the world regularly base their decisions on applications for CPVRs on technical examinations carried out on behalf of the CPVO in the framework of the international cooperation in plant variety testing.

Figure 9 illustrates the number of reports the CPVO has made available to national authorities.

Figure 9
Evolution of the number of DUS testing reports made available to other PVR authorities (2010-2019)



By the end of 2019 the CPVO had provided 7 231 technical reports to 60 countries. During 2019, the five countries from which most requests emanated were Colombia, Morocco, Ecuador, Brazil and Canada. In 2019, 47.8 % of requests concerned ornamental varieties, 44.1 % fruit varieties, 5.8 % agricultural varieties and 2.3 % vegetable varieties. In 2019 the CPVO processed 741 requests, which is the second-highest number of requests ever received.

The CPVO has set up a flexible approach in respect of the agreed UPOV fee for making reports available. Requesting countries can pay this fee directly to the CPVO but they can also opt for the alternative, according to which the CPVO sends the invoice to the breeder. The report is always provided directly to the national authorities.

Table 23: The 10 countries that have bought the most DUS technical reports from the CPVO (1998-2019)

Country	Number of reports bought
Brazil	766
Colombia	762
Ecuador	616
Israel	593
Canada	464
Switzerland	459
Kenya	450
France	328
Turkey	304
Norway	276

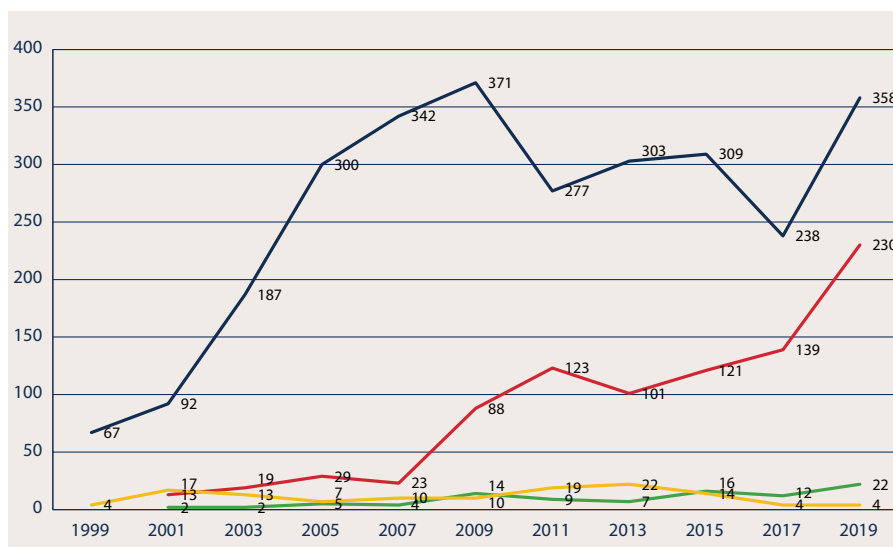
Figure 10 shows the evolution per crop sector of the number of DUS reports exchanged with national PVR authorities all around the world from 1999 to 2019. Both numbers of requests and sales increased in 2019, mainly in the ornamental and fruit sectors. This increase is directly linked to the high number of grants reached in 2019 in combination with applications for ornamental and fruit varieties in multiple countries and those countries taking over the DUS report from the CPVO.

Since 1998, the CPVO DUS report for each of 15 fruit varieties has been taken over by 10 countries or more. The DUS report for the top variety (a raspberry variety) has been sold by the CPVO to 22 countries outside the EU.

Figure 10

Evolution of the number of DUS testing reports made available to other PVR authorities per crop sector for the period 1999-2019 (every other year shown)

- Agricultural
- Ornamental
- Fruit
- Vegetable



10.2.3.2. Relations with examination offices

10.2.3.2.1. 23rd annual meeting with the examination offices

In December 2019 the CPVO held its 23rd annual meeting with its EOs, which was also attended by representatives from the European Commission, the UPOV office and the breeders' organisations (Ciopora, Euroseeds, Plantum and ECO-PB), as well as by representatives from Switzerland as a non-EU PVR authority. The main subjects of discussion were the following:

- taking of photographs during visits to the growing trial;
- the cost of a split sample for the long-term storage of seed;
- the changed phytosanitary regulations;
- obtaining reference varieties for DUS testing and the revision of the technical verification procedure;
- acceptance of certain seed treatments;
- organisation of field expert meetings;
- the closing date for applications;
- the situation of observing certain characteristics only once for species with multiannual testing.

Furthermore, the participants were informed of the state of play of R & D projects and IT projects; Ciopora's view on the concepts 'variety' and 'distinct'; and the CPVO's view on the cascade of protection in relation to parent lines and hybrids, the update of all procedures with an 'anti-fraud clause', the review of the quality requirements an EO has to comply with and the calculation of costs by the EOs.



Cucumber



Roses

10.2.3.2.2. Preparation of the CPVO's technical protocols

In 2019, experts from the Member States' EOs were invited to participate in drawing up or revising the following TPs for DUS testing, which were either subsequently approved by the AC or can be expected to be approved in 2020.

- **Agricultural sector.** In 2019, the TPs for oilseed rape and oats were discussed for presentation to the AC in 2020. The following protocols have been reviewed for further discussion in 2020: Lucerne and cocksfoot.
- **Vegetable sector.** In 2019, the TPs for melon, pea, artichoke, broccoli, spinach, tomato and tomato rootstocks were partially revised. These are all expected to be approved by the AC in 2020.
- **Fruit sector.** The TP for gooseberry was revised.
- **Ornamental sector.** The new TPs for *Geranium* L. and *Callistephus sinensis* (L.) Nees and the revised TPs for *Guzmania* Ruiz & Pav. and *Lobelia* L. were adopted.

10.2.3.2.3. Crop expert meetings

A meeting of fruit experts was held in September in Leipzig, Germany. The discussions included a number of items relating to conducting technical examinations (such as testing of apple mutation groups, plants in the test and 'reserve' plants, blueberry testing, postponement of testing rules, update of list of species, obtaining reference varieties for DUS testing), the potential DNA storage of samples for enforcement purposes, plant health issues and R & D projects.

The agricultural experts meeting took place in October 2019 in Angers, France. In addition to the DUS technical examination-related topics and TP discussions, true potato seeds were on the agenda. The postponement of a maize workshop to 2020 organised by Coboru was agreed. At the occasion of providing an update on the R & D projects, experts were invited to think about potential future projects to be presented to the Imoddu group. The new timelines for R & D proposals, requiring submission before mid March in order to have approval for the following calendar year, have been highlighted.

A meeting of ornamental experts was held in November at the premises of the CPVO. The aim of the meeting was to inform examiners of the developments in the work of the CPVO and to discuss items linked to the technical examinations (such as obtaining reference varieties for DUS testing and the revision of the technical verification procedure, the source of reference material, guidance on the uniformity threshold for small deviating colour sections, the requirements of a plant passport/phytosanitary certificate, mentioning the trade name in the application documents or the notion of the end of a DUS trial). Some of the discussions held served as preparation for the annual meeting with all the EOs.

A meeting of vegetable experts was held on 2 and 3 December in Angers, France. In addition to the previously mentioned vegetable protocols, the group discussed numerous other items on DUS matters: in particular, the group discussed the results of a survey regarding the number of observations made by each EO on a regular basis during multiannual testing (for a list of characteristics from 13 species); the group also exchanged

views from a legal perspective on how to better document evidence for varieties where the distinctness decision is based on a visual assessment by a single observation of a group of plants or parts of plants (VG) characteristic.

10.2.3.2.4. New species

In 2019 the CPVO organised two new-species inventories. In the 2019-A procedure in April, 51 new species for which varieties have not yet been subject to an application to the CPVO were published. For 30 of them, a new EO was appointed. In November for the 2019-B procedure, 41 new species were published. For 33 of them, a new EO was entrusted. As a result of these two new-species inventories, the AC of the CPVO entrusted new EOs for 63 of these new species in 2019. The exact list of those taxa is provided in Table 24.

Table 24: List of new species for which EOs were entrusted during the procedures 2019-A and 2019-B

Species
<i>Abelia mosanensis</i> I. C. Chung ex Nakai
<i>Aesculus hippocastanum</i> L.
<i>Anemone x lesseri</i> H. R. Wehrh. (<i>Anemone multifida</i> Poir. x <i>A. sylvestris</i> L.)
<i>Armeria pseudarmeria</i> (Murray) Mansf.
<i>Astelia</i> Banks & Sol. ex R. Br.
<i>Astilbe japonica</i> (C. Morren & Decne.) A. Gray
<i>Begonia masoniana</i> Irmsch.
<i>Betonica officinalis</i> L. (syn. <i>Stachys officinalis</i> (L.) Trevis.)
<i>Bidens alba</i> (L.) DC. x <i>B. odorata</i> Cav.
<i>Biscutella didyma</i> L.
<i>Boronia heterophylla</i> F. Muell. x <i>B. pulchella</i> Turcz.
<i>Boronia heterophylla</i> F. Muell. x <i>B. megastigma</i> Nees ex Bartl.
<i>Callicarpa dichotoma</i> (Lour.) K. Koch x <i>C. kwangtungensis</i> Chun
<i>Callisia fragrans</i> (Lindl.) Woodson
<i>Callisia soconuscensis</i> Matuda
<i>Campsis grandiflora</i> (Thunb.) K. Schum.
<i>Cistus parviflorus</i> Lam. x <i>C. sintenisii</i> Litard.
<i>Clematis florida</i> Thunb.
<i>Cornus drummondii</i> C. A. Mey.
<i>Cotyledon orbiculata</i> L. var. <i>oblonga</i> (Haw.) DC. (syn. <i>Cotyledon undulata</i> Haw.) x <i>Cotyledon papillaris</i> L. f.
<i>Crocsmia masoniorum</i> (L. Bolus) N. E. Br.
<i>Crocsmia masoniorum</i> (L. Bolus) N. E. Br. x <i>C. paniculata</i> (Klatt) Goldblatt
<i>Cynodon x magennisii</i> Hurcombe (syn. <i>Cynodon dactylon</i> x <i>Cynodon transvaalensis</i>)
<i>Dasiphora x friedrichsenii</i> (Späth) Juz. (<i>D. davurica</i> x <i>D. fruticosa</i>)
<i>Digitalis isabelliana</i> (Webb) Linding. (syn. <i>Isoplexis isabelliana</i> (Webb) Masf.)
<i>Echeveria pulvinata</i> Rose
<i>Echinacea</i> Moench

Species

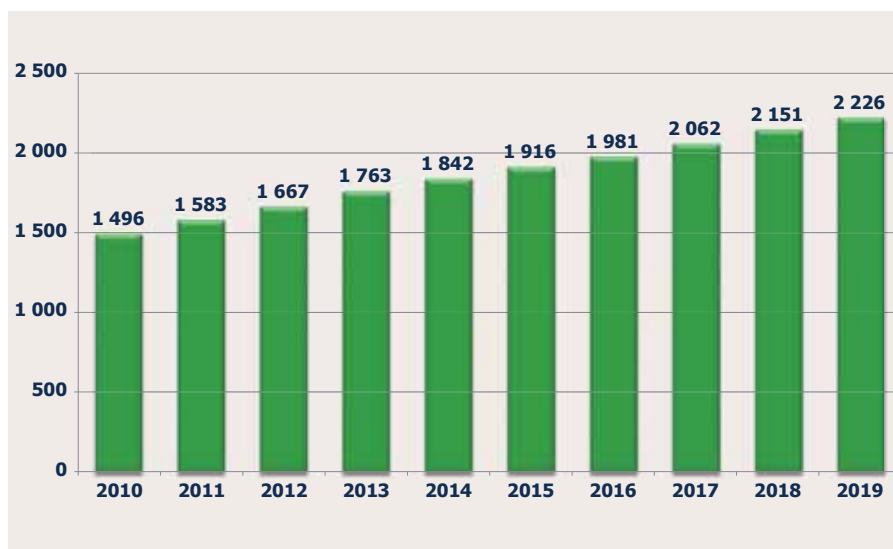
Echinacea pallida (Nutt.) Nutt. x *E. purpurea* (L.) Moench
Epimedium pinnatum Fisch. ex DC. subsp. *colchicum* (Boiss.) N. Busch
Erigeron karvinskianus DC. x *E. speciosus* (Lindl.) DC.
Ficus petiolaris Kunth
Geum coccineum Sm.
Ilex glabra (L.) A. Gray
Juglans hindsii (Jeps.) R. E. Sm. x *J. regia* L.
Kalanchoe miniata Hils. x *K. porphyrocalyx*
Lepidium virginicum L.
Lysimachia christinae Hance
Malus Mill.
Malus prunifolia (Willd.) Borkh.
Microcitrus australasica (F. Muell.) Swingle (syn. *Citrus australasica* F. Muell.)
Murdannia loriformis (Hassk.) R. S. Rao & Kammathy
Nepenthes L.
Penstemon barbatus (Cav.) Roth
Peperomia vestita C. DC.
Phalaenopsis amabilis (L.) Blume
Phedimus kamtschaticus (Fisch.) 't Hart (syn. *Sedum kamtschaticum* Fisch.)
Philodendron verrucosum L. Mathieu ex Schott
Phlebodium aureum (L.) J. Sm.
Pilea peperomioides Diels
Pittosporum Banks ex Gaertn.
Platanus x *hispanica* Mill. ex Münchh. (syn. *Platanus* x *acerifolia* (Aiton) Willd.)
Prunus x *fruticans* Weihe
Salvia chamaedryoides Cav. x *Salvia greggii* A. Gray
Salvia guaranitica A. St.-Hil. ex Benth.
Salvia guaranitica A. St.-Hil. ex Benth. x *S. x westerae* J. R. I. Wood (syn. *Salvia haenkei* x *S. orbignaei*)
Sciadopitys verticillata (Thunb.) Siebold & Zucc.
Spiraea x *cinerea* Zabel
Thalictrum aquilegifolium L.
Thalictrum petaloideum L.
Triticum turgidum L. subsp. *dicoccum* (Schrank ex Schübl.) Thell. x *Triticum turgidum* L. subsp. *durum* (Desf.) Husn.
Vitex trifolia L. x *Vitex agnus-castus*
x *Mangave* D. Klein (*Agave* x *Manfreda*)
Yushania anceps (Mitford) W. C. Lin

For the taxa for which no proposals have been received so far, the CPVO is exploring technical solutions, either at EU level or outside the EU, depending on the species.

Figure 11 shows the evolution of the number of taxa for which the CPVO has received applications for Community PVP since 2010.

Figure 11

Evolution of the number of botanical taxa for which the CPVO received applications (2010-2019)



10.2.4. Technical liaison officers

The CPVO tries to have a close and efficient working relationship with its EOs. Therefore, in 2002 the CPVO formalised a network of contact persons on a technical level in the Member States, the technical liaison officers (TLOs). The TLOs play an important role in the CPVO's relationship with its EOs. A revision of the set-up of the TLO network was approved by the AC and the changes entered into effect from January 2016.

The role of the TLO can, in general, be defined as acting as the contact point for the CPVO at a technical level. In particular, this means the following.

- Invitations to the annual meeting with the EOs are, in the first place, addressed to the TLO.
- The TLO should be the person at EO level who is in charge of distributing information of technical relevance within the EO in respect of the CPVR system (e.g. informing crop expert colleagues of conclusions from the annual meeting of the EOs).
- Technical enquiries, which are sent out by the CPVO to collect information, should be addressed to the TLOs. Examples include:
 - new species procedures, in order to prepare the proposal for the entrustment of EOs to the AC;
 - questionnaires in respect of closing dates, quality requirements and the testing of genetically modified organisms.
- For communications of a general technical nature, the CPVO contacts the TLOs first. Specific problems, such as those relating to a certain variety, may be discussed in the first instance directly between the crop expert at the EO and the relevant expert at the CPVO.

Table 25: List of appointed TLOs (as of 31 December 2019)

Luca Aggio	CREA Centro di ricerca per la viticoltura ed enologia/Viticulture and Enology Research Centre Italy
Lubomir Basta	UKSUP Department of variety testing Slovakia
Pier Giacomo Bianchi	CREA-DC Italy
Alexandra Chatzigeorgiou	Hellenic Ministry of Rural Development and Food Directorate-General of Agriculture Directorate of Propagating Material of Cultivated Plant Species and Plant Genetic Resources Greece
Mihaela-Rodica Ciora	Institutului de Stat pentru Testarea si Inregistrarea Soiurilor/State Institute for Variety Testing and Registration Romania
Björn Coene	Office de la Propriété Intellectuelle/Office for Intellectual Property Belgium
Zoltán Csürös	NÉBIH Directorate of plant production and horticulture Hungary
David Cummins	Department of Agriculture, Food and the Marine Ireland
Maureen Delia	Ministry of sustainable development, environment and climate change Seeds and other propagation material unit Plant health directorate Malta
Gerhard Deneken	Tystofte Foundation Denmark
Dilyan Dimitrov	Executive Agency for Variety Testing Field Inspection and Seed Control Bulgaria
Barbara Fürnweger	AGES Austria
Fabio Gervasi	CREA Centro di ricerca per la Olivicoltura, Frutticoltura e Agrumicoltura/Olive, Citrus and Tree Fruit Research Centre Italy
Lars Henrik Jacobsen	University of Aarhus – Aarslev Department of Food Science Denmark
Sigita Juciuviene	Ministry of agriculture Lithuanian state plant service Division of plant variety Lithuania

Marcin Król	Coboru Poland
Kristian van Laecke	Eenheid Plant – Teelt en Omgeving/Plant Unit – Cultivation and Environment Belgium
Clarisse Leclair	GEVES FRANCE
Paivi Mannerkorpi	European Commission DG Health and Food Safety Belgium
Kyriacos Mina	Ministry of agriculture, natural resources and environment Agricultural research institute Cyprus
Kaarina Paavilainen	Finnish food safety authority Finland
Teresa Maria Pais Nogueira Coelho	DGAV Portugal
Helena Rakovec	Ministry of agriculture, forestry and food Slovenia
Mara Ramans	Animal and Plant Health Agency United Kingdom
Beate Rücker	BSA Germany
Ivana Rukavina	Croatian Centre for Agriculture, Food and Rural Affairs Croatia
Radmila Šafáriková	ÚKZÚZ Czechia
Bert Scholte	Naktuinbouw Afdeling Rassenonderzoek/Variety Testing Department Netherlands
Elizabeth Scott	NIAB United Kingdom
Joakim Stefansson	Swedish Board of Agriculture Plant and Environment Department Plant Regulation Division Sweden
Agra Univer	Agricultural research centre Viljandi variety testing centre Estonia
Nuria Urquia Fernandez	OEV Ministerio de Agricultura, Pesca y Alimentación/ Ministry of Agriculture, Fisheries and Food Spain
Marc Weyland	Agriculture technical services office Plant production service Luxembourg

11. VARIETY DENOMINATIONS

11.1. The CPVO Variety Finder

Maintained and developed by the CPVO since 2005, the web-based CPVO Variety Finder database contains information on registers of more than 60 countries with a general search tool. It also includes a similarity search tool to test the suitability of denominations. The general principle is to update the database as soon as data are officially published. A memorandum of understanding has been signed with UPOV to share the task of collecting data from EU Member States and non-EU countries and ensure a regular data exchange.

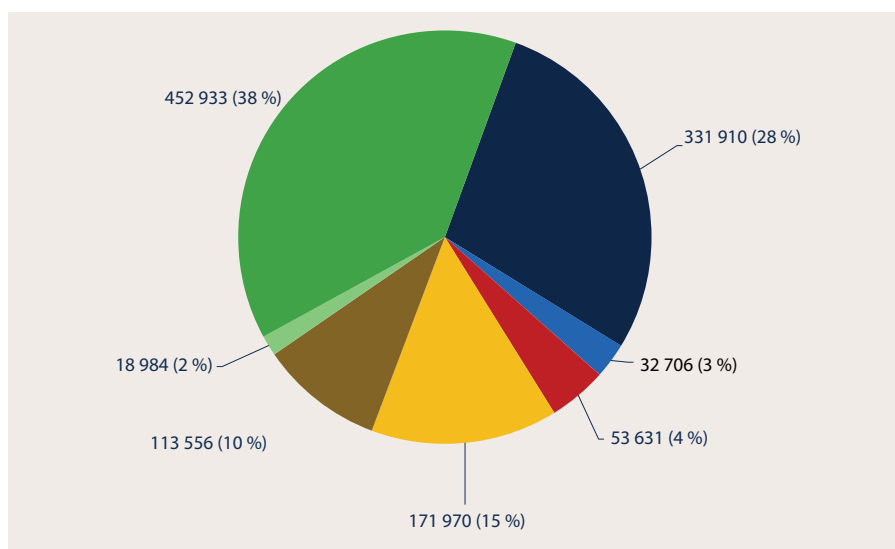
In total, more than 1 million records originating from EU and UPOV members have been included in the Variety Finder. The use of the Variety Finder has constantly increased over recent years. CPVO clients represent the biggest group of users with more than 50 % of the tests of similarity launched. Around 80 000 denomination similarity tests are launched every year.

Figure 12 gives an overview of the content of the database with the number of records per type of register (1 175 690 records on 31/12/2019).

Figure 12

Number of records per type of register

- Plant breeders' rights
- Plant patent
- EU IPO trademarks
- Commercial registers
- Other registers (e.g. OECD)
- Fruit Reproductive Material Information System (Frumatis)
- National listing

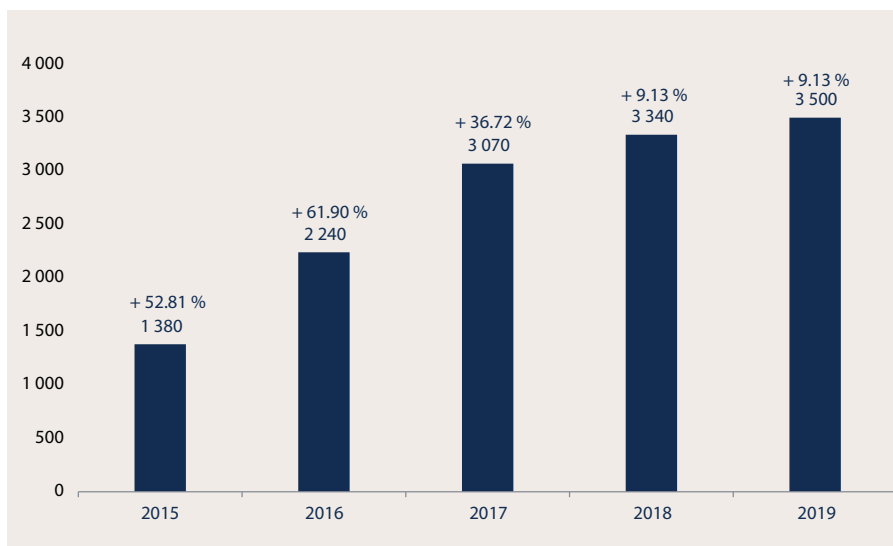


Over the last few years the number of users (national authorities, CPVO clients for CPVRs and the general public) has constantly increased, as is illustrated in Figure 13.

Figure 13

Evolution in the number of users of both similarity and search tools and their growth each year in percentages (2015-2019)

■ Number of users



The European Commission and the CPVO are working together on a new project named Plavarlis to investigate possibilities for a unique format for Member States contributing to the Common Catalogues and the CPVO Variety Finder database. Since the second half of 2019 a detailed project description has been produced by the Commission services in close cooperation with the CPVO. The writing of this document in its final version will serve as a basis for further discussions on the data dictionary. It will furthermore help in the drafting of the IT specifications.

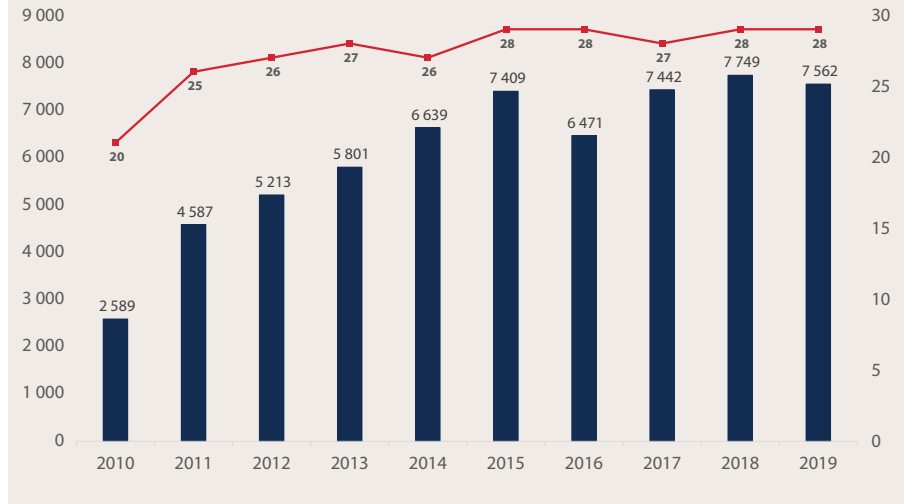
In 2019, the CPVO started a software development project to redesign the Variety Finder database. EUIPO is participating in the drafting of the software requirement specifications of the future tool as part of a cooperation agreement between the two offices. The main objective of the 'New Variety Finder' project is to modernise the application in order to ease its maintenance and future evolution. The second objective of the project is to improve the user-friendliness of the tool for external users. The third objective is the addition of some missing features into the Variety Finder.

11.2. Cooperation in denomination testing

Despite a slight decrease in 2019 (- 2 %) the activity remained sustained with more than 7 560 requests for opinion received over the year, with a surge in January, representing alone nearly 13 % of the total number of requests. The cooperation service works well and has proven its effectiveness and usefulness during the last 9 years. Most of the users of the service are unanimous on the benefit of the service, which contributes to centralising and to harmonising the information and the procedures in everybody's interest.

Figure 14
Number of requests for opinion received and number of contributing national authorities (2010-2019)

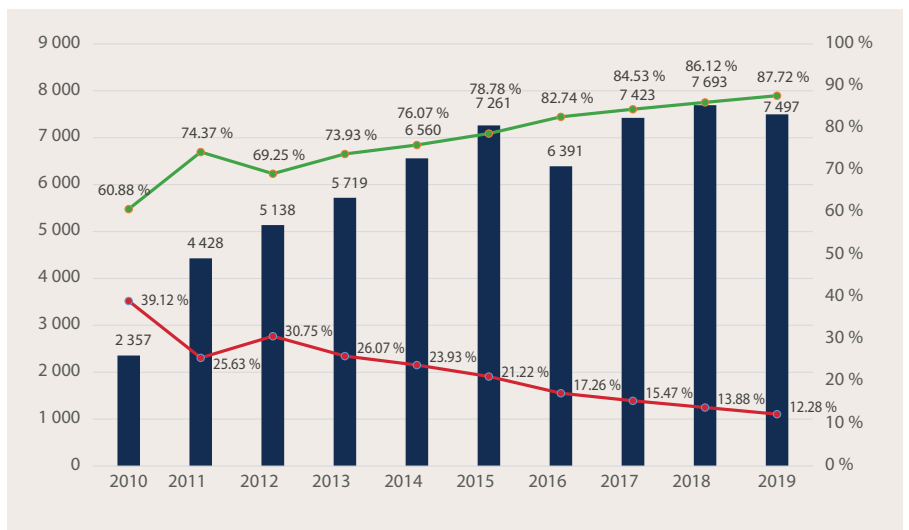
■ Number of requests for opinion
■ Number of national authorities



The constant decrease in the number of observations regarding non-suitable variety denominations is a valuable indicator of how national authorities have made the cooperation service their own over time. While making better use of the service, they also use it as a tool for dialogue and interaction, not only with the CPVO but also with other national authorities, and they do not hesitate to involve the CPVO in cases of delicate situations requiring mediation in relation to variety denominations.

Figure 15
Number of analyses carried out and share of observations made/absence of observations in the analyses (2010-2019)

■ Sum of number of analyses
■ % of observations
■ % of no observations



12. INFORMATION TECHNOLOGY (IT)

The information technology (IT) and database management team was reinforced in 2018 and all posts were occupied in 2019; nevertheless the number of projects in the pipeline has significantly increased with demand for support in many different areas, both within the CPVO and with external stakeholders. The vision of the CPVO as regards IT is defined in relation to the four overarching programmes outlined below.

12.1. E-services

The e-services programme encompasses all of the various projects that will ensure that the CPVO's dealings with external stakeholders (clients, EOs and partners such as EUIPO and UPOV) are online, transparent, paperless and, to the greatest extent possible, involve a minimum of manual intervention in the procedures.

During 2019, the CPVO outlined its strategy for the coming years with a 'cloud first' approach to all developments. This strategy will lead to significant work in the coming years to provide stakeholders with an efficient and stable IT environment.

12.2. Operational improvements

Operational tools cover all the IT applications necessary for the day-to-day business of the CPVO. As is the case every year, significant developments were made in 2019 with regard to internal operational tools that manage, inter alia, application processing, document management, human resources and finance. The CPVO leverages tools available in other institutions and, in 2019, became the first EU agency to successfully migrate its human resources applications to the EU institutions central tool. This work will continue in the coming years.

12.3. Communication tools

The CPVO website (cpvo.europa.eu), which was reshuffled in 2016, continues to be developed to ensure responsiveness to the needs of the CPVO stakeholders.

12.4. Infrastructure and support

The project to virtualise all CPVO server infrastructure continued in 2019 and this prepares the CPVO well for a future move to a cloud-based infrastructure. The CPVO takes part in European Commission framework contracts for many IT projects, and the adherence to the 'cloud II' framework contract will allow a structured transition of infrastructure to the cloud.

13. COOPERATION WITH THE DIRECTORATE-GENERAL FOR HEALTH AND FOOD SAFETY

13.1. Standing Committee on Community Plant Variety Rights

In 2019 there was a meeting of the Standing Committee on Community Plant Variety Rights held on 4 October. The Commission presented the proposed changes to the fees regulation. The committee voted with a favourable opinion.

13.2. Standing Committee on Plants, Animals, Food and Feed

13.2.1. 'Seeds and propagating material for agriculture and horticulture' section

This European Commission committee met several times during 2019 in Brussels and staff members of the CPVO attended two meetings where items of relevance for the CPVO were discussed.

Of particular interest for the CPVO throughout 2019 were the following:

- The European Commission/CPVO project on a unique EU IT system on plant varieties. Member States were regularly updated on the progress of the project.
- Exchange of views on a working document amending Commission Regulation (EC) No 6 37/2009 on rules as to the suitability of the denominations of varieties of agricultural plant species and vegetable species. Several Member States and the CPVO provided comments on the draft text but expressed general support for the working document.



Radish



Potato

- Discussions on a working document on the update on the use of common names in Directives 2002/55/EC and 2008/72/EC.

The Commission presented the text and some Member States requested more time to transpose the implementing directive in order to help operators to apply the required changes. The date of transposition was changed to 30 June 2020 and the date of application to 1 July 2020 and the text has been voted favourably.

- Exchange of views of a request from France to add species to Directives 66/401/EEC, 2002/55/EC and 2002/57/EC.

France presented a request to add *Lens culinaris*, *Cicer arietinum*, *Fagopyrum esculentum* and *Camelina sativa* to the list of species in the marketing directives. It was emphasised that before adding species to or deleting species from the scope of the marketing directives it would be preferable to clarify the criteria to be employed in such a decision. Member States proposed to create a working group to establish such criteria and add this issue to the work programme of the committee.

- Update on DUS testing of onions and shallots.

The Commission presented the outcome of a series of meetings with Dutch and French competent authorities, French shallot growers and Dutch breeders on the classification of certain seed-propagated varieties of *Allium cepa* L. as onion or shallot. It was agreed to jointly explore the possibility of using DNA and metabolic data and new morphological characteristics to establish a more reliable characterisation of onions and shallots with the aim to minimise the grey area between the onion and shallot varieties. A joint Dutch, French, Commission and CPVO working group was set up for this purpose.

- The update of the Commission implementing directive amending Commission Directives 2003/90/EC and 2003/91/EC setting out implementing measures for the purposes of Article 7 of Council Directive 2002/53/EC and Article 7 of Council Directive 2002/55/EC respectively, as regards the characteristics to be covered at a minimum by the examination and the minimum conditions for examining certain varieties of agricultural plant species and vegetable species.

The Commission presented the updated text and in reply to a comment from a Member State as regards the scope of the TP for *Sorghum* the CPVO confirmed that the CPVO protocol on *Sorghum* and the UPOV guideline on *Sorghum* have an identical scope. The Member States agreed with the proposed draft.

- Exchange of views on the preparations for a temporary experiment on organic varieties.

The Commission presented the envisaged approach and the expected time schedule to draft the temporary experiment on organic varieties. A working group to draft the experiment will be established and the CPVO expressed interest in taking part in the working group. The deadline to adopt the temporary experiment is 1 July 2021.

- Matters related to Organisation for Economic Cooperation and Development (OECD) seed schemes.

The Commission gave a short update on some technical issues needing further work after the last OECD Seed Schemes Technical Working Group meeting at the end of January 2019. As regards CPVO (and UPOV) variety testing protocols it seems that for some biomolecular techniques no real validation by all participating laboratories is carried out. It seems that expert groups recognise certain methods based on for example limited ring tests, experience or research results. Therefore, it would be more appropriate to use the term 'international recognition' for biomolecular techniques. On seed mixtures, Member States reported a growing interest in organic production, greening, energy plant production, etc. The Commission also reported the intention of the OECD seed schemes secretariat to give a presentation on new IT applications related to blockchain technology in the next meeting.

- Exchange of views on the work programme for 2019.

The CPVO informs the members of the standing committee on a regular basis of developments of interest at the level of the CPVO, in particular in respect of decisions taken by its Administrative Council on new or revised TPs for DUS testing.

13.2.2. 'Standing Committee on Propagating Material of Ornamental Plants' section

There was no meeting of this committee in 2019.

13.2.3. 'Standing Committee on Propagating Material and Plants of Fruit Genera and Species' section

In the course of 2019 one meeting of this committee was held, where no items of direct concern for the CPVO were considered. The CPVO did not attend.

13.3. Council working parties

Following an invitation from the DG Health and Food Safety to join the European Commission representation, the CPVO participated in the following Council working parties in 2019:

- working parties on coordination of EU positions as regards UPOV meetings (Council, Consultative Committee, Technical Committee and Administrative and Legal Committee);
- working parties on coordination of EU positions as regards the OECD annual meeting.

14. EXTERNAL RELATIONS

14.1. Cooperation with external organisations

14.1.1. Breeders' organisations

Regular interaction with breeders' organisations is a top priority for the CPVO. The CPVO ensures it is in frequent contact with breeders' organisations, particularly those that represent the majority of users of the EU system. Ciopora, Euroseeds and Plantum are all key contributors to the work of the CPVO.

Representatives of these three organisations participate in the AC of the CPVO as observers and in all relevant meetings of technical experts organised by the CPVO. These organisations take an active part in and contribute to seminars and workshops organised by the CPVO. The breeders' organisations play an invaluable role in spreading information and knowledge on all aspects of the Community plant variety system throughout the EU.

The CPVO is most grateful for the very constructive and positive collaborations that it shares with these organisations and without which the CPVO could not communicate its work on PVRs to breeders.

In 2019 the CPVO attended the annual meetings of Ciopora and Euroseeds and gave in that context various presentations and participated in panel discussions.

In bilateral meetings with Ciopora, Euroseeds and Plantum, issues of mutual interest were discussed. Those discussions related amongst other issues to fee and cost aspects, essentially derived varieties, public access questions, the international strategy of the CPVO, the interface of PBR and patents, the new organic regulation and its potential consequences, the minimum distance project, enforcement issues and the publication of variety descriptions. It was concluded that such formal bilateral meetings should continue to be organised on an annual basis.



Tomatoes



Carrots

14.1.2. The International Union for the Protection of New Varieties of Plants

The CPVO has participated in the activities of UPOV since 1996. In July 2005 the European Community (now the EU) became a member of UPOV.

During 2019, as members of the EU delegation, CPVO officials participated in meetings of the following UPOV bodies and committees.

- The UPOV Council.
- The Legal and Administrative Committee.
- The Technical Committee.
- The Consultative Committee.
- Technical working parties (on agricultural crops, vegetable crops (hosted by the CPVO), fruit crops, ornamental plants and forest trees, automation and computer programs and the biomolecular techniques).

It should be noted that the CPVO actively contributes to those working parties by regularly providing presentations and drafting documents. In addition the CPVO provides the chair for the technical working party for fruit crops (Jean Maison).

- The ad hoc working group on the development of an electronic application form.
- The ad hoc working group on a possible international system of cooperation.
- The ad hoc working group on variety denominations.

Senior officials of the UPOV office regularly attend meetings of experts or working groups organised by the CPVO dealing with technical and legal issues of common interest.

In several regions of the world where countries are members of UPOV, such as Asia, Africa, Latin America and the Caribbean, there is an emergent interest in knowing the details and results of PVR systems with a regional scope and learning from the experience accumulated. The CPVO frequently provides speakers for seminars and technical workshops organised by UPOV. Furthermore, several staff members of the CPVO also act as tutors in the various distance-learning courses offered by UPOV.

14.1.3. The European Union Intellectual Property Office

In 2019 the CPVO and EUIPO continued their cooperation by way of reciprocally provided services. In particular, one member of staff of the CPVO dealing with the assessment of variety denominations attended a training session at EUIPO dealing with the assessment of the new absolute grounds for refusal of EU trademark applications under Article 7(1)(m) of Regulation (EU) 2017/1001 as well as opposition and revocation proceedings in respect of variety denominations and trademarks. The training also focused on the use of the Variety Finder database and the assessment of variety denominations in particular in relation to the interpretation of the notion of closely related species.

A trademark examiner from EUIPO attended a training session at the CPVO on variety denominations and the use of Variety Finder. As regards the human resources field the CPVO has continued offering internship opportunities to trainees within the joint internship programme with the EPO and the EUIPO 'pan-European seal' programme.

Additionally, EUIPO supports the CPVO in the conducting of a recruitment procedure in the IT sector. Moreover, in 2019, the CPVO continued to participate in the enforcement and legal working groups of the European Observatory on Infringements of Intellectual Property Rights, as well as in the plenary session. In this area the CPVO contributed to the update of the observatory national case-law database in the domain of enforcement of PVRs by national courts. The CPVO also provided data from the register of CPVRs to the third edition of the joint EUIPO-EPO industry-level analysis report, *IPR-intensive industries and economic performance in the European Union*. The CPVO further cooperated with the observatory to support the Virtual Training Centre with material in the domain of PVRs and supported the development of a webinar for law enforcement officials in cooperation with the European Union Agency for Law Enforcement Training.

As regards the EUIPO Academy, the CPVO jointly organised a webinar on legal and Board of Appeal proceedings. In the area of international cooperation, the CPVO jointly implemented the IP Key China, Latin America and South-East Asia projects.

In the area of data protection, the DPO of EUIPO also became the DPO of the CPVO. In the IT area, the two offices agreed to intensify their cooperation with a view to strengthening synergies in the development of IT projects. In this respect EUIPO is cooperating with the CPVO in the re-writing of the Variety Finder database.

14.1.4. The European Patent Office

On 25 October 2018 the administrative arrangement, signed on 11 February 2016 by the CPVO with the EPO, was renewed for a further period of 3 years. A new implementation plan was agreed with activities to be jointly implemented continuing with the knowledge sharing among technical experts. In 2019 the CPVO continued sharing data from the CPVR registry. Those data have been made available to EPO contracting states. Moreover, in 2019 the CPVO and the EPO organised two activities, namely a training session for a CPVO expert on the EPO's practices and a webinar on the CPVO data for IP offices of the EPO's contracting states.

14.1.5. OECD

In 2019 the CPVO attended the annual meeting of the OECD seed schemes, the related technical working group meeting and some of the ad hoc working parties all held within 1 week in Vienna, Austria. Of particular interest for the CPVO are the OECD activities in respect of biochemical and molecular techniques, aspects related to variety identity and variety descriptions as well as discussions related to digital technologies for trade, traceability and certification.

14.1.6. Other EU institutions

The CPVO maintains regular external contacts by participating in meetings organised by the following bodies and on the following topics:

- The European Commission DG Human Resources and Security – implementation of the staff regulations.
- The European Commission DG Budget – implementation of the new financial regulation.
- The European Commission DG Trade – cooperation in the field of the EU-funded IP Key project with China, Latin America and South-East Asia.
- The European Commission DG International Cooperation and Development – cooperation in the field of EU-funded projects ‘Caribbean Forum of the African, Caribbean and Pacific Group of States intellectual property rights and innovation’.
- The committees on legal affairs and for agriculture and rural development of the European Parliament.

In addition, other fields of external activity can be mentioned, such as the following.

- The relevant standing committees of the European Commission.
- The Management Board of the Translation Centre for the Bodies of the European Union.
- The coordination of the EU agencies at management level.
- The annual coordination meeting of the Publications Office of the European Union with the EU agencies.
- The meetings of the DPOs of the EU agencies, as well as other working groups established under the umbrella of the coordination of EU agencies, such as the Inter-Agencies, Legal Network and the Network of Agencies Procurement Officers.
- Cooperation with the European Union Agency for Law Enforcement Training and the European Union Agency for Law Enforcement Cooperation to raise the awareness of the law enforcement agencies about the infringement of PVRs in the framework of the Virtual Training Centre for police and customs officials and the operation ‘Opson’ to fight against the counterfeiting of foodstuffs. This aims to enhance cooperation between the law enforcement and regulatory authorities involved in the field of PVRs.

14.1.7. Non-governmental organisations

In addition to the cooperation as mentioned in the previous chapters, the CPVO has contact and communicates with various non-governmental organisations.

An annual bilateral meeting is organised with AIPH. At the occasion of the 2019 meeting the CPVO informed AIPH on the ongoing discussions in the CPVO’s AC and AIPH reported on issues of relevance for the CPVO which are discussed at AIPH. The CPVO noted that topics of major concern for AIPH related to patents, essentially derived varieties, minimum distances of varieties, the Nagoya protocol and activities of AIPH members in China.

In 2019 the CPVO held a formal bilateral meeting with a representative of the ECO-PB. At that occasion the ECO-PB gave an update on developments in the Liveseed project. Furthermore, the possibility to develop adjusted DUS TPs for organic-bred varieties and the needs of the organic breeders were discussed. The ECO-PB explained that the interference of PVP with the patent system and the availability of information on the breeding techniques used for protected varieties are of particular concern for them.

Representatives from the ECO-PB attend the meetings of the CPVO crop sector expert groups for agricultural and vegetable crops as well as the annual meeting of the CPVO with its EOs as observers.

Representatives of the International Federation of Organic Agriculture Movements and the ECO-PB are also involved in the discussions on a future joint EU IT system for plant varieties.

14.1.8. Local partners

In the second half of 2019, the CPVO stepped up its engagement and collaboration with a series of local partners.

Several local organisations aimed at promoting Europe, such as La Maison de l'Europe Angers & Maine-et-Loire, or at promoting networking and social activities for the expat community in Angers, such as Angers International Welcome, are partners of the CPVO. Visits were organised to the CPVO in 2019 and the CPVO staff is regularly informed of the public events and activities being organised by these partners.

In view of the CPVO's 25th anniversary in 2020, closer collaboration was also devised with local sectoral partners such as Vegepolys Valley and GEVES, notably on communication matters.



Vanda



Mandarins

Finally, the CPVO engaged constructively with the mayor of Angers and the administration of the Angers metropolitan area to advance three issues of interest to the CPVO – i.e. the signature of a seat agreement between the CPVO and France, the creation of a European school or equivalent in Angers and closer collaboration on communication matters in 2020.

14.2. Training and promotion of the Community plant variety rights system

14.2.1. CPVO international relations strategy

The present CPVO international relations strategy was adopted on 4 October 2017. The document contains a broad framework of initiatives aimed at strengthening the importance of PVR in providing food security, supporting economic development in the rural sector and facilitating technology transfer. Furthermore, the strategy underlines the CPVO's contribution to the harmonisation of the PVR system at the international level. Moreover, it aligns the objectives of the CPVO with the communication from the European Commission to the European Parliament, the Council and the European Economic and Social Committee, 'Trade, growth and intellectual property – Strategy for the protection and enforcement of intellectual property rights in third countries' (COM(2014) 389 final) (the EU strategy), which serves as a basis for debate on securing better IPR protection in foreign markets, in cooperation with non-EU countries (third countries). In the EU strategy the European Commission has aimed to set a revised strategy to promote IPRs and combat IPR infringements abroad, including in the field of PVR, and has acknowledged the importance of cooperation with the CPVO.

The CPVO's objective is to contribute to the EU's policies in the field of IPRs, so that European breeders can count on tools and practices that facilitate their access to emerging markets through the exchange of knowledge, and to support EU users in registration and enforcement overseas, in cooperation with EU Member States. For EU breeders doing business outside the borders of the Union, being able to access and secure their IPRs is a key strategic advantage, particularly for SMEs. Funds for this work have been provided for in the OAPI project and the IP Key projects.

14.2.2. Participation in international fairs

The CPVO considers its participation in international fairs and open days at EOs to be a useful opportunity to promote the CPVR system, to have direct contact with applicants and to provide information to breeders. In 2019 the CPVO participated as detailed below.

- The 'Salon Sival', which took place in mid January in Angers, France, is a fair mainly for growers of horticultural crops and vine; the CPVO participated together with GEVES.
- At the end of January 2019 the CPVO attended the International Trade Fair for Plants in Essen, Germany. The stand was shared with experts from BSA, Naktuinbouw, NIAB and GEVES. Even though the fair is open to the entire field of horticulture, the focus is on ornamentals.

14.2.3. The African Intellectual Property Organisation roadmap

In 2014 OAPI became the second intergovernmental organisation and the 72nd member to join UPOV. OAPI adopted an ambitious 5-year roadmap, from 2015 to 2020, which they are eagerly pursuing. The CPVO, GEVES, the Groupement national interprofessionnel des semences et des plants (French Association for Seeds and Seedlings), Naktuinbouw and the United States Patent and Trademark Office are supportive of this initiative and are actively supporting its implementation.

OAPI operates a PVR system that covers the territory of its 17 Member States: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo.

Together with partners in Europe, OAPI engaged in 2016 with the European Commission to get funds for the implementation of the roadmap under the programme 'TradeCom II', the African, Caribbean and Pacific Group of States' trade capacity building programme. The European Commission signed an agreement with OAPI in mid 2019 followed by a formal opening procedure held on 23 September 2019. The project is limited to the period 2019-2021.

At the end of August 2019, the CPVO visited OAPI at its headquarters in Yaoundé, Cameroon, and analysed the method used to process applications. In September and October, the CPVO contributed to three seminars for approximately 20 participants in each of the following countries: Burkina Faso, Mali and Togo. The aim of these seminars was to raise awareness of the benefits of PVRs and to explain the conditions to fulfil to receive protections. Another focus of these seminars was strategies to commercialise protected varieties and to strengthen the link between the different stakeholders. In November 2019, two variety research stations in Senegal and in Cameroon were assessed by the QAS of the CPVO with the aim to provide recommendations to develop them into DUS examination centres. Finally, at the end of the year, five experts from OAPI visited the CPVO to familiarise themselves with the processing of applications. All activities were conducted in closed cooperation with the other project partners, UPOV, GEVES, Naktuinbouw and the French Association for Seeds and Seedlings.

14.2.4. IP Key China

As part of the IP Key China second annual work programme three activities dedicated to PVP have been carried out.

Two seminars were held, co-organised by the CPVO in Beijing, focusing on sharing technical reports amongst national PVP authorities and on the implementation of farm-saved seeds and essentially derived varieties provisions.

A series of training sessions were held for Chinese experts on legal, administrative and technical aspects of the European PVP system. Four delegations were trained at the EOs in

Germany (BSA), France (GEVES) and the Netherlands (Naktuinbouw), at the CPVO and at the UPOV office.

A third activity took the form of a training session and mock audit at Chinese examination facilities. Under the lead of the CPVO's QAS, Chinese colleagues were trained in defining and applying quality assessment criteria. This is in response to a steep increase in application numbers and the resulting creation of new and specialised examination centres. These centres work under the authority of the two PVP authorities and need guidance as to the expectations of their administrations and require a harmonisation of their work across species and crop groups.

14.2.5. IP Key Latin America

From 13 until 15 November 2019 IP Key Latin America organised a regional seminar in Lima for Latin American countries with the collaboration of the CPVO, UPOV and the Peruvian Institute for the Defence of Competition and Intellectual Property. The aim of the Regional Workshop on Cooperation in Examination of Plant Variety Protection Applications was to enhance cooperation among EOs. To this end, technical examiners from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay were invited to participate in the activity, which encouraged PVP offices to discuss the use of molecular market techniques in DUS examination, to consider the mutual recognition of DUS test reports produced by other authorities to compare technical questionnaires used for the main crops in the region, and to discuss the best approaches for analysis of novelty and denominations, among other topics.

Moreover, in 2019 the CPVO supported the creation of an online course on licensing practices addressed to public research institutes and universities to foster public-private partnerships. Finally, a PVP awareness-raising video on the benefits of UPOV 1991 was completed in 2019.

14.2.6. IP Key South-East Asia

IP Key South-East Asia organised a high-level study visit on PVP and UPOV 1991 to Belgium, France and the Netherlands from 23 to 27 September 2019 for high-level officials from Indonesia, Malaysia, Vietnam and Thailand. The high-level study visit consisted of a half-day seminar focusing on the benefits of membership of UPOV 1991, the advantages of the CPVR system under UPOV 1991, the experience of Vietnam as a UPOV 1991 member and visits to various sites. The activity included visits to GEVES, Limagrain (a cooperative group of French farmers and plant breeders), to vegetables and ornamentals breeding companies in the Netherlands and the Dutch Plant Variety Protection Office; and finally, meetings in Brussels with representatives of DG Trade, the CPVO, the Committee of Professional Agricultural Organisations-General Confederation of Agricultural Cooperatives, Euroseeds, Ciopora, Plantum and UPOV. The interaction and discussions between the high-level officials and farmers and plant breeders are expected to improve the understanding of the national

authorities from the participating countries of the benefits UPOV 1991 and strong PVP systems bring to agricultural and rural development and food security.

14.2.7. Universities

In 2019, the CPVO continued to cooperate with a network of universities with the aim of spreading awareness of PVRs among students and academics. In this respect, the CPVO continued being one of the partner institutions of the European Intellectual Property Institutes Network–Innovation Society joint doctorate to foster research in the field of intellectual property. This has led to the awarding of several doctoral degrees, one of which is in the domain of plant varieties.

The project is entirely funded under the Marie Skłodowska-Curie actions of the European Commission. Moreover, for the 6th year, the CPVO is continuing its collaboration with the Universities of Alicante (Magister Lvcentinvs) and Strasbourg (Centre d'études internationales de la propriété intellectuelle/Centre for International Intellectual Property Studies). The CPVO has entered into a new cooperation agreement with the Munich Intellectual Property Law Centre. Several successful internships have been granted to former students of both universities' masters in IP law. In particular, the CPVO supports the Magister Lvcentinvs, the master in intellectual property of the University of Alicante that continues to implement a special intensive course dedicated to PVRs.

The CPVO continues to collaborate with the École Supérieure des Sciences Commerciales d'Angers/the ESSCA School of Management based in Angers in the framework of the European sustainability policies course and with Wageningen University participating in the plant breeders' rights for food security and economic development course. Moreover, in 2019 the CPVO contributed to the PVP and biotechnology course organised by the University of Maastricht, under the Master of Intellectual Property Law and Knowledge Management. The CPVO has also given lectures and presentations at the University of the Balearic Islands (Spain), the Technical University of Munich (Germany), the University of Angers (France), the École Supérieure d'Agriculture of Angers (France) and UniLaSalle of Beauvais (France).

15. PUBLIC ACCESS TO DOCUMENTS

In 2001 specific rules on public access to documents held by the Parliament, the Council and the European Commission were introduced by the adoption of Regulation (EC) No 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding public access to European Parliament, Council and Commission documents. In order for these rules to also apply to documents held by the CPVO, a new article, Article 33(a), was introduced into the BR in 2003 by the adoption of Council Regulation (EC) No 1650/2003 of 18 June 2003 amending Regulation (EC) No 2100/94 on Community plant variety rights.

Article 33(a) contains the following elements.

- Regulation (EC) No 1049/2001 shall also apply to documents held by the CPVO. This provision entered into force on 1 October 2003.
- The AC shall adopt practical arrangements for implementing Regulation (EC) No 1049/2001. The AC adopted such practical arrangements on 25 March 2004. These rules entered into force on 1 April 2004.
- Decisions taken by the CPVO on public access to documents may form the subject of a complaint to the Ombudsman or of an action before the Court of Justice.

Regulation (EC) No 1049/2001 and the rules adopted by the AC (modified during the October 2014 meeting of the AC to reflect the new work organisation within the Legal Unit of the CPVO) are available on the website of the CPVO. Information on these rules and the forms to use when requesting access to a document are also published on the website of the CPVO.

The CPVO monitors the implementation and application of the rules on public access to documents by reporting annually on information such as the number of cases in which the CPVO refused to grant access to documents and the reasons for such refusals. In the event of a total or partial refusal to a public access request by the CPVO, the applicant has the right to make a confirmatory application asking the president of the CPVO to reconsider its position.

Figure 16
Evolution of annual number of public access requests received by the CPVO over the last 10 years

■ Number of files concerned
— Number of requests

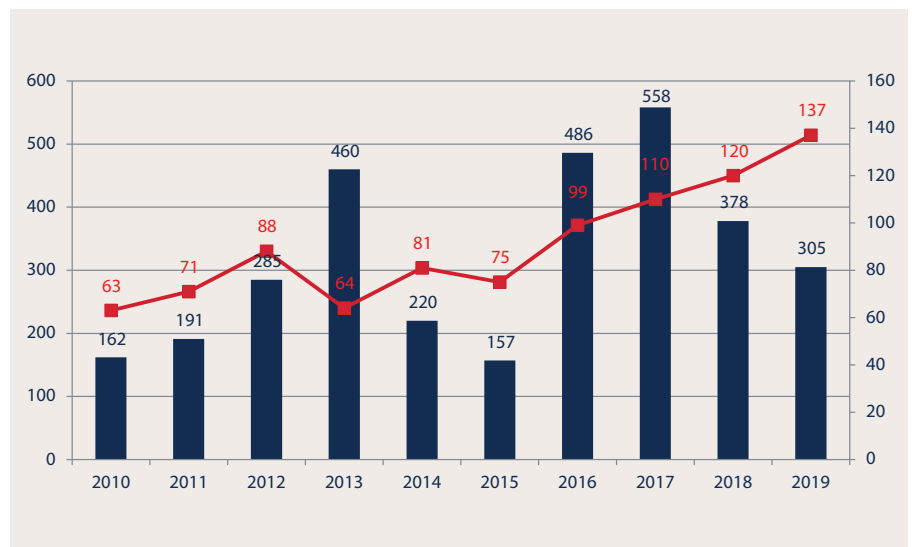


Table 26: Number of public access requests

Year of receipt	Number of requests for access received	Number of partial refusals	Reasons for such refusals	Confirmatory applications
2004	30	6	Confidential technical questionnaire not sent	
2005	55	2	Confidential technical questionnaire not sent	
2006	58	6	Confidential technical questionnaire not sent	
2007	55	17	Confidential technical questionnaire not sent/information of commercial interest not sent	2 (successful)
2008	57	19	Confidential technical questionnaire/photo/assignment not sent	1 (unsuccessful)
2009	54	28	Confidential technical questionnaire not sent/information of commercial interest not sent/photos not available	2 (successful)
2010	63	29	Confidential technical questionnaire not sent/information of commercial interest not sent	1 (unsuccessful)
2011	71	27	Confidential technical questionnaire not sent/information of commercial interest not sent	2 (1 unsuccessful and 1 successful)
2012	88	57	Confidential technical questionnaire not sent/information of commercial interest not sent	8 (3 unsuccessful and 5 successful)
2013	63	18	Confidential technical questionnaire not sent/information of commercial interest not sent	1 (unsuccessful)
2014	81	27	Confidential technical questionnaire not sent/information of commercial interest not sent	4 (1 unsuccessful and 3 successful)
2015	75	17	Confidential technical questionnaire not sent	3 (2 unsuccessful and 1 successful)
2016	99	26	Confidential technical questionnaire not sent	4 (successful)
2017	110	45	Confidential technical questionnaire not sent	2 (1 unsuccessful and 1 successful)
2018	120	35	Confidential technical questionnaire not sent	2 (1 unsuccessful and 1 successful)
2019	137	39	Confidential technical questionnaire not sent	4 (3 unsuccessful and 1 successful)

16. REPORT OF THE DATA PROTECTION OFFICER

16.1. Legal background

On 11 December 2018, Regulation (EU) No 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002/EC, entered into force. This regulation was adopted for the purpose of complying with Article 16 of the Treaty on the Functioning of the European Union and aligning the rules for EU institutions with Regulation (EU) 2016/679 (general data protection regulation). Article 16 of the treaty requires the application by the EU institutions and bodies of the EU acts on the protection of individuals with regard to the processing of personal data and the free movement of such data.

‘Processing of data’ has quite a broad meaning and refers not only to transferring data to third parties but also to collecting, recording and storing data, whether by electronic or other means.

16.2. Role and tasks of the data protection officer

Regulation (EC) No 2018/1725 requires the nomination of at least one DPO in the EU institutions and bodies. The DPO should ensure, in an independent manner, the internal application of the provisions in the regulation and that the rights and freedoms of the data subjects are unlikely to be adversely affected by the processing operations.

In March 2018 an addendum to the memorandum of understanding between the CPVO and EUIPO was signed to outsource the tasks of the DPO to EUIPO. Mariya Koleva was nominated on 5 April for a duration of 2 years.

16.3. Report of the data protection officer for 2019

16.3.1. Consultation and review of data processing operations

The first element of the DPO’s duties is responding to consultations related to privacy and data protection matters and revising the documentation of the new or updated personal data processing operations. By the end of December 2019, the DPO had responded to 61 enquiries.

In 2019 the DPO was putting in place continuous efforts to achieve a higher level of accountability, awareness and transparency at the CPVO, complying with the main principles established by Regulation (EU) 2018/1725. The CPVO controllers are becoming more aware of the correct manner of demonstrating compliance and accountability, in terms of privacy and data protection.

16.3.2. Ensuring and demonstrating compliance

The second element of the DPO's tasks is investigating and responding to complaints filed before the DPO either internally (by staff members) or externally (by CPVO users). In 2019 no complaints (from employees or external users) were received by the DPO.

The next element of the DPO's responsibilities relates to assisting the delegated controllers (CPVO units and services) in ensuring and demonstrating compliance with the data protection rules before the European Data Protection Supervisor (EDPS): in 2019, no complaints were filed before the EDPS which is of course a positive indication of CPVO compliance with the data protection rules.

16.3.3. European Data Protection Supervisor website inspection

In July 2018 the EDPS announced a remote inspection of the EU institutions web services. The scope of the inspection defined by the EDPS, in accordance with the EDPS's 'Guidelines on the protection of personal data processed through web services provided by EU institutions', focused on:

- existence and accuracy of the privacy policy, cookie notices or similar policy documents;
- security of the personal data in transit between the web service and the terminal equipment of a data subject (i.e. using an HTTPS secure transfer protocol).

By the end of 2019 the EDPS inspection of the CPVO web services had not yet taken place.

16.3.4. Advice and information provided to data subjects and controllers

In general, in 2019 the DPO facilitated the work of the CPVO business owners, operationally supporting them in order for them to tackle the requirements of the data protection legislation in the most efficient manner (in terms of human and financial resources).

In brief, the DPO actions aimed to ensure:

- full legal compliance and the highest level of transparency and security for the data subjects – staff members and external users – when they seek to exercise and enforce their rights;
- general awareness of the data protection rules and, in particular, the CPVO's policies and procedures applying the data protection provisions to the CPVO's practices and activities;
- full transparency and accountability of the CPVO policies, procedures and practices, in terms of personal rights, privacy controls and safeguards for individuals and in data breach circumstances also to the persons affected (so they can take steps to protect themselves).

The operational activities included:

- providing analysis and advice on the exact scope and nature of the operational measures/actions to be carried out by the CPVO delegated controllers in their respective areas;
- revision of the CPVO's processes/procedures and documentation, in light of the privacy and data protection rules.

Various procedures and documentation required adaptation to ensure compliance when processing staff and users' personal data by the CPVO. The main activities initiated by the DPO included procurement procedures/outsourcing; breach handling and escalation/reporting; privacy and security standards and risk assessment, etc.

Complying with Article 25 of Regulation (EC) 2018/1725, internal rules were drafted by the DPO for the CPVO and submitted to the EDPS on 4 October 2019. The EDPS response and recommendations were provided on 18 December 2019. Upon finalising the draft in view of the EDPS's feedback (to be revised between the CPVO and the DPO in the beginning of 2020), the internal rules are to be provided for the AC adoption under written procedure.

Upon request by the CPVO, the DPO was closely involved in the preparation of the specific contract with Microsoft for the implementation of Office 365 at the CPVO.

The EUIPO DPO visited the CPVO on 29 and 30 April and the EUIPO deputy DPO visited on 2 and 3 December 2019 and on both occasions, various meetings with business owners took place, in order to verify the state of play of their awareness and compliance with the data protection requirements and provide them with advice and recommendations on various specific data protection matters.

In order for the CPVO staff and management to be well informed and aware of their rights and obligations (as recommended by the DPO), a 1-day all-staff data protection training session was delivered at the CPVO by external trainers from the Privacy and Cybersecurity Centre at Maastricht University.

16.3.5. Data breaches

Four data breaches took place at the CPVO in 2019; with the assistance of the DPO, reports were prepared to be recorded in the CPVO 'breach register' and mitigating and preventive measures/actions were defined.

16.3.6. Meetings of the data protection officer network in 2019

The 45th and 46th meetings between the EUIs DPOs and the EDPS took place on 16 and 17 May in Frankfurt and 6 and 7 November in Florence and were hosted by the European Insurance and Occupational Pensions Authority and the Historical Archives of the European Union, respectively. Various issues were discussed between the EDPS and

the EUIs DPOs at the events: Article 25, 'Restrictions of data subjects' rights'; international transfers (to non-EU countries and international organisations); joint data protection training scheme; cloud and Office 365; procurement and outsourcing, etc. The DPO attended the meetings and made interventions on several occasions to ensure full alignment in the interpretation of certain complex provisions of the new data protection regulation. The EUIPO DPO is co-leading and/or participating in various EUIs DPOs working groups, such as the working groups on Article 25 'Restrictions', international transfers, procurement and outsourcing, and ICTAC, and the EUIs DPOs' Common Working Group.

In addition, at the 45th meeting the EUIPO DPO was nominated by the DPO network as the representative of the EU institutions, offices, agencies and bodies in the DPO 'quartet', where the DPO of the Commission, Council and Parliament have a permanent position while the representative for the remaining entities rotates. The quartet is mainly entrusted with managing the cooperation within the EUIs DPO network and between the DPOs and the EDPS.

17. APPEAL PROCEDURES

17.1. Composition of the Board of Appeal of the CPVO

The Board of Appeal of the CPVO is composed of a chair, an alternate chair, and qualified members.

17.1.1. Chair and alternate of the Board of Appeal

Paul van der Kooij was appointed as Chair of the Board of Appeal for a term of 5 years by a Council decision of 19 February 2018 (Official Journal of the European Union C 65, 21.2.2018, p. 4). His past term ran from 18 December 2012 until 18 December 2017. His new term runs from 19 February 2018 until 18 February 2023. The position of his alternate, Sari Haukka, was renewed for a second term of 5 years by a Council decision of 16 June 2016 (Official Journal of the European Union C 223, 21.6.2016, p. 5). Her term runs from 15 October 2016 until 14 October 2021.

17.1.2. Qualified Members of the Board of Appeal

The Administrative Council of the CPVO at its meeting of 30 September 2015 adopted, in accordance with the procedure prescribed by Article 47(2) of the BR, the following list of 22 qualified members of the Board of Appeal for a period of 5 years starting on 23 February 2016 and ending on 22 February 2021.

Table 27: List of qualified members (from 23.2.2016 to 22.2.2021)

1. Beatrix Bönisch	12. André Pohlmann
2. Richard Brand	13. Dirk Reheul
3. Paul de Heij	14. Kurt Riechenberg
4. Krieno Fikkert	15. Beate Rücker
5. Huib Ghijzen	16. Ivana Rukavina
6. Helen Johnson	17. Elizabeth Scott
7. Ofelia Kirkorian-Tsonkova	18. Péter Sipos
8. Michael Köller	19. Sven Stürmann
9. François Lallouet	20. Zsolt Szani
10. Stephan Martin	21. Hanns Ullrich
11. Miguel Angelo Pinheiro De Carvalho	22. Nicolaas Petrus van Marrewijk

17.2. Decisions of the Board of Appeal in 2019

The Board of Appeal took two decisions in 2019.

- On 27 February 2019, in appeal case A010/2013–RENV, concerning a sugar beet variety bearing the denomination 'M 02205', the Board of Appeal annulled the non-nullity decision NN010 of 23 September 2013 of the CPVO referring to distinctness matters,

remitted the case back to the competent CPVO instance, and ordered the CPVO to bear the costs of the appeal proceedings including the costs incurred by the appellant. The other party, the holder of the CPVR, had to bear their own costs.

- On 17 May 2019, in appeal case A007/2018, concerning the first ever EU application for a seed-propagated F1-hybrid potato variety, bearing the denomination 'Oliver', the Board of Appeal upheld the CPVO refusal decision R1620, and concluded that the variety was not sufficiently uniform subject to the particular features of its propagation in the expression of the characteristics observed in the technical examination. The appellant had to bear their own costs.

Summaries and complete decisions are available in the CPVO PVR case-law database, on the CPVO website.

17.3. Further actions to the Court of Justice in 2019

In accordance with Article 73 of the BR, a further action to the Court of Justice can be brought against decisions of the Board of Appeal.

17.3.1. New further actions in 2019

Case T-278/19 – 'MO2205'. A further action was brought before the General Court on 26 April 2019 against the Board of Appeal decision of 2 February 2019 in case A010/2013-RENV for the sugar beet variety M 02205.

17.3.2. Rulings of the General Court in 2019

Case T-177/16 – 'Braeburn 78'. On 5 February 2019, the General Court annulled the decision of the Board of Appeal of 15 December 2015 in case A001/2015 (to uphold the refusal decision of the CPVO to grant a CPVR based on lack of distinctness), and ordered the CPVO to pay the costs.

Case T-765/17 – 'Pinova'. On 11 April 2019, the General Court dismissed the action brought against the decision of the Board of Appeal of 16 August 2017 in case A005/2016 (to uphold the non-nullity decision of the CPVO whereby the variety retained its novelty in the sense of Article 10 of the BR), and ordered the applicant to pay the costs.

Case T-112/18 – 'Cripps pink'. On 24 September 2019, the General Court dismissed the action against the decision of the Board of Appeal of 14 September 2017 in appeal case A007/2016 (to uphold the non-nullity decision of the CPVO whereby the variety retained its novelty in the sense of Article 10 of the BR), and ordered the applicant to pay the costs.

17.3.3. Ruling of the Court of Justice in 2019

Case C-444/19 P – ‘Pinova’. On 16 September 2019, the Court rejected the appeal pursuant to Article 58(a) of the Rules of Procedure of the Court of Justice, and did not allow for the appeal to proceed wholly.

17.3.4. State of affairs of the further actions lodged with the Court of Justice

Table 28

No of case before the General Court	Contested decision	Variety denomination	Date of General Court ruling	Date of further appeal to the Court of Justice	No of case before the Court of Justice	Date of Court of Justice ruling
T-95/06	A001/2005	Nadorcott	31.1.2008	n/a	n/a	n/a
T-187/06	A003/2004	Sumcol 01	19.11.2008	29.1.2009	C-38/09 P	15.4.2010
T-187/06 DEP I	Non-payment of recoverable costs of the proceedings T-187/06	Sumcol 01	16.9.2013	n/a	n/a	n/a
n/a	n/a	Sumcol 01	n/a	7.2.2013	C-38/09 P-DEP	10.10.2013
T-133/08	A007/2007	Lemon Symphony	18.9.2012	28.11.2012	C-546/12 P	21.5.2015
T-134/08	A006/2007	Lemon Symphony	18.9.2012	28.11.2012	C-546/12 P	21.5.2015
T-135/08	A003/2007 and A004/2007	Gala Schnitzer	13.9.2010	15.11.2010	C-534/10 P	19.12.2012
T-177/08	A005/2007	Sumost 01	18.9.2012	28.11.2012	C-546/12 P	21.5.2015
T-242/09	A010/2007	Lemon Symphony	18.9.2012	28.11.2012	C-546/12 P	21.5.2015
T-367/11	A007/2010	Southern Splendour	21.10.2013	n/a	n/a	n/a
T-91/14	A004/2007	Gala Schnitzer	10.9.2015	23.11.2015	C-625/15 P	8.6.2017
T-92/14	A003/2007	Gala Schnitzer	10.9.2015	23.11.2015	C-625/15 P	8.6.2017
T-767/14	A007/2013	Oksana	13.7.2017	n/a	n/a	n/a
T-140/15	A010/2013	M02205	23.11.2017	n/a	n/a	n/a
T-425/15	A003/2010	Seimora	4.5.2017	n/a	n/a	n/a
T-426/15	A002/2014	Seimora	4.5.2017	n/a	n/a	n/a
T-428/15	A007/2009	Sumost 02	4.5.2017	n/a	n/a	n/a
T-177/16	A001/2015	Braeburn 78	5.2.2019	n/a	n/a	n/a
T-445/16	A005/2014	Gala Schnico	23.2.2018	7.5.2018	C-308/18 P	8.11.2018
T-405/16	A006/2014	Tang Gold	<i>Withdrawn</i>	n/a	n/a	n/a
T-765/17	A005/2016	Pinova	11.4.2019	11.6.2019	C-444/19 P	16.9.2019
T-112/18	A007/2016	Cripps Pink	24.9.2019	n/a	n/a	n/a
T-737/18	A009/2017	Siberia	<i>Pending</i>			
T-278/19	A010/2013-RENV	M 02205	<i>Pending</i>			

17.4. Appeals received by the CPVO and decisions reached by the Board of Appeal since its inception (statistics)

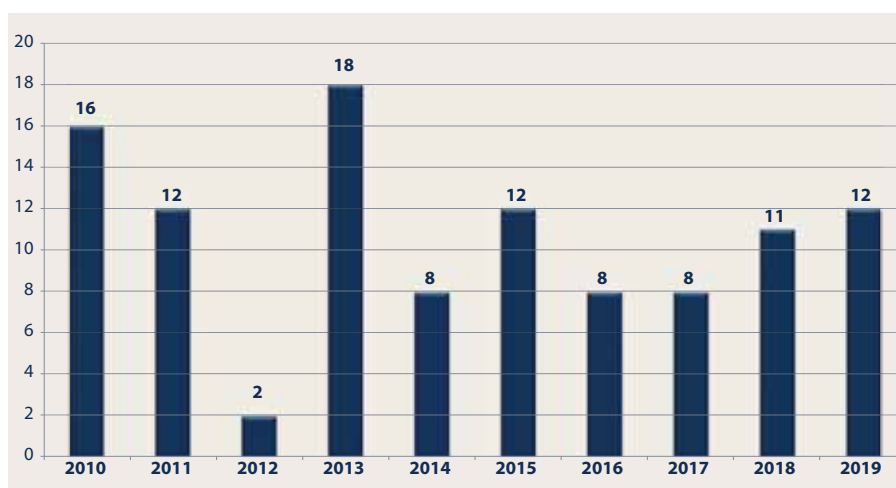
17.4.1. Number of appeals lodged per year between 2010 and 2019

Some 196 appeals have been lodged with the CPVO since the opening of the CPVO.

The annual number of appeals received in the last 10 years is shown in Figure 17.

Figure 17

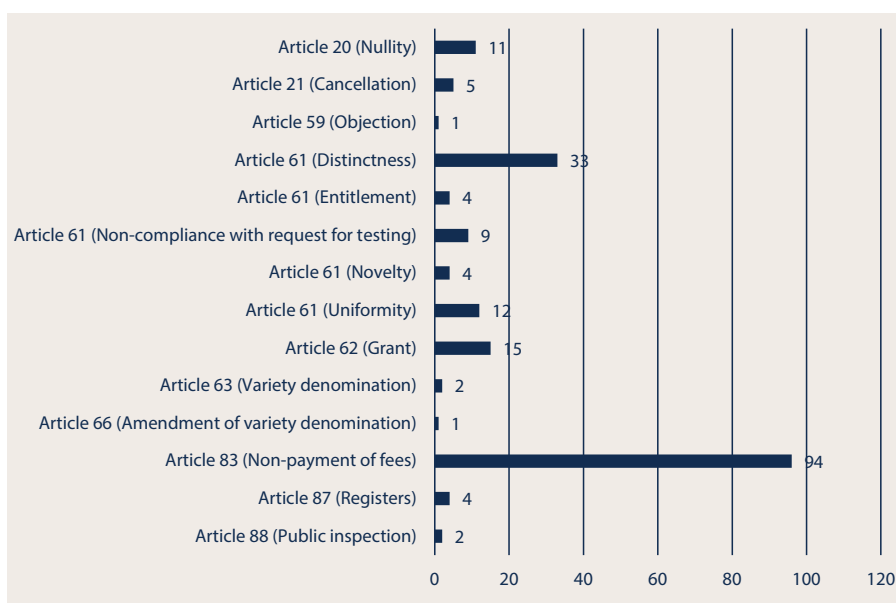
Number of appeal cases lodged per year with the CPVO between 2010 and 2019



17.4.2. Legal basis of the appeals lodged since 1996 (with reference to the BR)

Figure 18

Legal basis of the appeal cases lodged with the CPVO since 1996

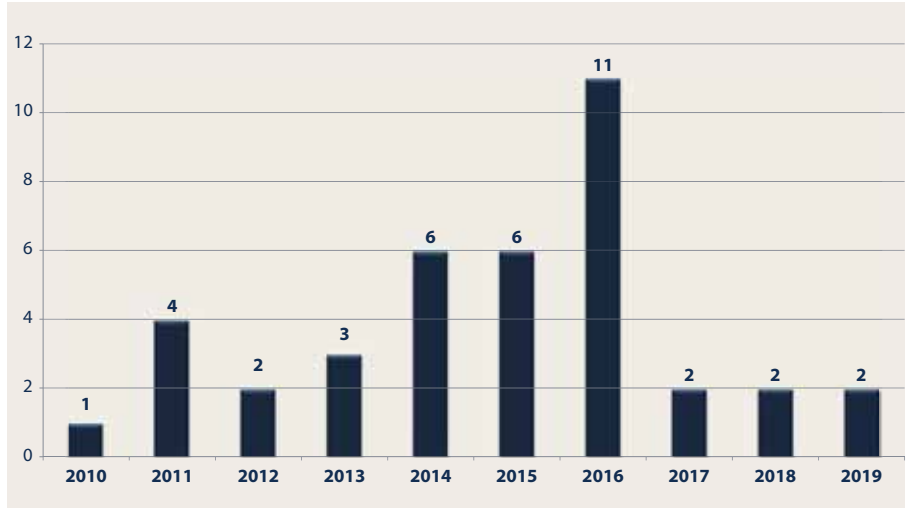


17.4.3. Decisions of the Board of Appeal per year

A total of 87 decisions were taken by the Board of Appeal of the CPVO between 1996 and 2019. The annual number of decisions taken in the last 10 years is shown in Figure 19.

Figure 19

Number of decisions reached by the Board of Appeal per year between 2010 and 2019

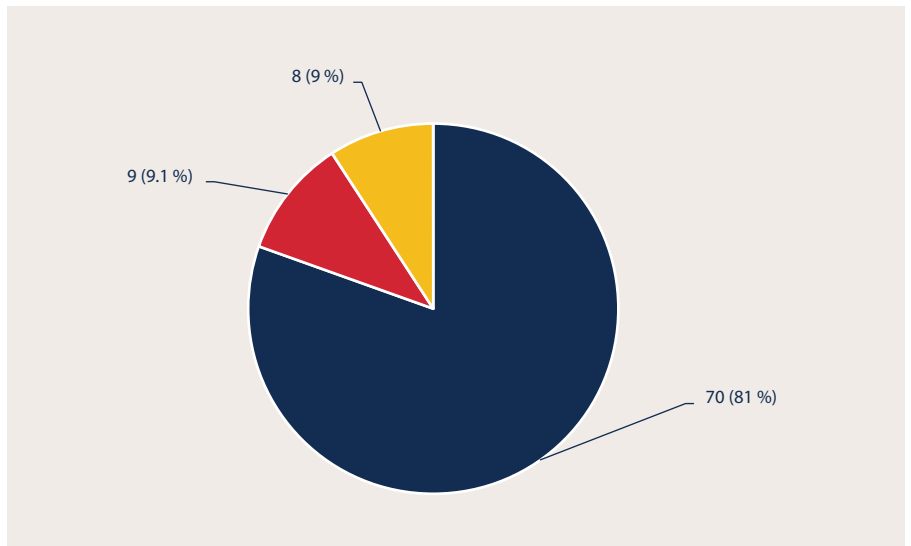


17.4.4. Outcomes of the 87 decisions of the Board of Appeal (1996-2019)

Figure 20

Share of the outcomes of the total number of decisions of the Board of Appeal (1996-2019)

- Appeals partially upheld
- Appeals upheld
- Appeals dismissed



The references of the decisions taken by the Board of Appeal are given in Table 29.

Table 29

Year	Appeal case number and Board of Appeal decision date
1999	A002/1998 of 14.9.1999
2000	A001/1999 of 25.1.2000 A002/1999 of 19.5.2000
2001	A002/2000 of 27.3.2001 A004/2000 of 6.12.2001
2002	A005/2000 of 28.5.2002
2003	A005/2002 of 2.4.2003 A001/2002, A002/2002 and A003/2002 of 1.4.2003 A018/2002 of 14.5.2003 A008/2002, A009/2002, A010/2002, A011/2002, A012/2002 and A013/2002 of 15.5.2003 A017/2002 of 3.4.2003 A023/2002 of 8.10.2003 A031/2002 of 8.12.2003 A021/2002 of 9.12.2003
2004	A003/2003 and A004/2003 of 4.6.2004 A005/2003 and A006/2003 of 28.9.2004 A001/2004 of 16.12.2004
2005	A006/2004 of 15.6.2005 A005/2004 of 16.6.2005 A004/2004 of 18.7.2005 A001/2005 of 8.11.2005
2006	A003/2004 of 2.5.2006 A004/2005 of 13.10.2006 A007/2005 of 7.7.2006
2007	A001/2007 of 11.9.2007 A003/2007 and A004/2007 of 21.11.2007 A005/2007, A006/2007 and A007/2007 of 4.12.2007
2008	A011/2007 of 9.9.2008 A009/2008 of 2.12.2008 A001/2008 and A002/2008 of 4.12.2008
2009	A010/2007 of 23.1.2009 A004/2008 and A005/2008 of 21.4.2009 A010/2008 and A011/2008 of 8.10.2009
2010	A018/2008 of 15.3.2010
2011	A001/2010, A005/2010, A006/2010 and A007/2010 of 18.2.2011
2012	A009/2011 of 17.1.2012 A001/2012 of 10.10.2012
2013	A003/2007 and A004/2007 of 20.9.2013 (second decisions for the same cases further to remittal from the Court of Justice) A007/2011 of 23.4.2013

Year	Appeal case number and Board of Appeal decision date
2014	A006/2013 of 13.1.2014 A004/2013 of 4.4.2014 A008/2013 of 1.7.2014 A007/2013 of 2.7.2014 A016/2013 of 11.9.2014 A010/2013 of 26.11.2014
2015	A007/2009 of 24.2.2015 A002/2010 of 24.2.2015 A003/2010 of 24.2.2015 A002/2014 of 24.2.2015 A001/2015 of 15.12.2015 A002/2015 of 15.12.2015
2016	A001/2014 of 3.3.2016 A003/2014 of 3.3.2016 A005/2014 of 22.4.2016 A006/2014 of 29.4.2016 A007/2014 of 29.4.2016 A008/2014 of 29.4.2016 A006/2015 of 15.8.2016 A009/2015 of 22.8.2016 A005/2007-RENV of 2.9.2016 A006/2007-RENV of 2.9.2016 A007/2007-RENV of 2.9.2016
2017	A005/2016 of 16.8.2017 A007/2016 of 14.9.2017
2018	A001/2017 of 13.3.2018 A009/2017 of 15.10.2018
2019	A010/2013-RENV of 27.2.2019 A007/2018 of 17.5.2019

The detailed decisions of the Board of Appeal are available in the CPVO case-law database, on the CPVO website.

18. CONFLICTS OF INTEREST

In 2019 the CPVO continued its participation in the activities of the interagency task force on conflicts of interest organised by DG Health and Food Safety, with the aim of implementing the European Commission 'Guidelines on the prevention and management of conflicts of interest in EU decentralised agencies' (for members of the management board, executive directors and experts on scientific committees or other similar bodies and members of boards of appeal) of December 2013.

Apart from the decision-making process relating to the core business of the CPVO, there are other decisions and procedures in the CPVO in which impartiality and objectivity are very important, such as employment procedures, public procurement and providing funds for R & D projects. Regarding employment procedures in particular, CPVO staff members are subject to the staff regulations, which contain several provisions addressing situations of conflicts of interest. Nevertheless, over the years, procedures, provisions in agreements and declarations of absence of conflicts of interest have been introduced to remind the persons concerned about the importance of acting independently, with transparency and with integrity.

Having taken the European Commission guidelines into consideration, the AC adopted during its meeting in October 2015 a CPVO policy on prevention and management of conflict of interest. The policy was amended in 2017 and the proposed changes were approved by the AC at its first annual meeting of March 2018.

MAIN ACRONYMS, INITIALISMS AND ABBREVIATIONS

Acronym/initialism/abbreviation	
A	
AC	Administrative Council of the CPVO
AGES	Österreichische Agentur für Gesundheit und Ernährungssicherheit / Austrian Agency for Health and Food Safety (Austria)
AIPH	International Association for Horticultural Production
B	
BR	Basic regulation: Council Regulation (EC) No 2100/94 of 27 July 1994 on Community plant variety rights
BSA	Bundessortenamt / Federal Plant Variety Office (Germany)
C	
Ciopora	International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties
COY	Combined over year: a statistical method to analyse over-years results in species with multiannual testing
Coboru	Centralny Ośrodek Badania Odmian Roślin Uprawnych / Research Centre for Cultivar Testing (Poland)
CPVO/OCV	Community Plant Variety Office / Office communautaire des variétés végétales
CPVR	Community plant variety rights
CREA	Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria / Council for Agricultural Research and Agricultural Economics Analysis (Italy)
CREA-DC	Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria – Difesa e Certificazione / Council for Agricultural Research and Agricultural Economics Analysis – Research Centre for Plant Protection and Certification (Italy)
D	
DGAV	Direcção-Geral de Alimentação e Veterinária / Portuguese National Authority for Animal Health
DNA	deoxyribonucleic acid
DPO	data protection officer
DUS	distinctness, uniformity and stability
E	
ECO-PB	European Consortium for Organic Plant Breeding
EDPS	European Data Protection Supervisor
EO(s)	examination office(s)
EPO	European Patent Office
Euroseeds	European Seed Association
EU	European Union
EUIPO	European Union Intellectual Property Office (until 22.3.2016: Office for Harmonization in the Internal Market (Trade Marks and Designs))
G	
GAIA	A distinctness support software developed by the French examination office (GEVES)
GEVES	Groupe d'Étude et de contrôle des Variétés et des Semences / French Variety and Seed Study and Control Group (France)
I	
ICTAC	Information and communication technology Advisory Committee of the EU agencies

Acronym/initialism/abbreviation	
INIA	Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria/ National Institute for Agricultural and Food Research and Technology (Spain)
IP	intellectual property
IPRs	intellectual property rights
IT	information technology
K	
KASpar	a novel homogeneous fluorescent genotyping system from KBioscience
N	
NÉBIH	Nemzeti Élelmiszerlánc-biztonsági Hivatal/ National Food Chain Safety Office (Hungary)
NIAB	National Institute of Agricultural Botany (United Kingdom)
O	
OAPI	Organisation Africaine de Protection Intellectuelle/ African Intellectual Property Organisation
OECD	Organisation for Economic Cooperation and Development
OEVV	Oficina Española de Variedades Vegetales/ Spanish Plant Variety Office (Spain)
OJ	<i>Official Journal of the European Union</i>
P	
PBR	plant breeders' rights
Plantum	Branchevereniging voor de sector zaden en jonge planten/ Dutch Association for the Plant Reproduction Material Sector
PVP	plant variety protection
PVR	plant variety rights
Q	
QAS	Quality Audit Service
R	
R & D	research and development
S	
SNP	single-nucleotide polymorphism
T	
TLO	technical liaison officer
TP	technical protocol
U	
UKSUP	Ústredný kontrolný a skúšobný ústav poľnohospodársky/ Central Controlling and Testing Institute in Agriculture (Slovakia)
ÚKZÚZ	Ústředního kontrolního a zkušebního ústavu zemědělský/ Central Institute for Supervising and Testing in Agriculture (Czechia)
UPOV	International Union for the Protection of New Varieties of Plants



CPVO

Community Plant Variety Office

3 boulevard Maréchal Foch - CS 10121
49101 ANGERS CEDEX 2 - FRANCE
Tel. +33 (0)2 41 25 64 00 - Fax +33 (0)2 41 25 64 10
cpvo@cpvo.europa.eu - cpvo.europa.eu

 CPVO Youtube channel

 @CPVOTweets

 Community Plant Variety Office

Служба на Общността за сортовете растения

Oficina Comunitaria de Variedades Vegetales

Odrůdový úřad Společenství

EF-Sortsmyndigheden

Gemeinschaftliches Sortenamnt

Ühenduse Sordiamet

Κοινοτικό Γραφείο Φυτικών Ποικιλιών

Community Plant Variety Office

Office communautaire des variétés végétales

Ured Zajednice za zaštitu biljnih sorti

Ufficio comunitario delle varietà vegetali

Kopienas Augu šķirņu birojs

Bendrijos augalų veislių tarnyba

Közösségi Növényfajtá-hivatal

L-Uffiċju Komunitarju dwar il-Varjetajiet tal-Pjanti

Communautair Bureau voor plantenrassen

Wspólnotowy Urząd Ochrony Odmian

Instituto Comunitário das Variedades Vegetais

Oficiul Comunitar pentru Soiuri de Plante

Úrad Spoločenstva pre odrody rastlín

Urad Skupnosti za rastlinske sorte

Yhteisön kasvilajikevirasto

Gemenskapens växsortsmyndighet



Publications Office
of the European Union