‘Plants for the Future’ European Technology Platform

Submission for the TRIS procedure: Opinion on the French decree proposal

The European Technology Platform ‘Plants for the Future’ (Plant ETP) is a stakeholder forum representing the plant sector from fundamental research to crop production and distribution. The Plant ETP promotes the flow of innovation to the market through the recommendation and support of research and innovation (R&I).

The Plant ETP hereby submits its opinion on the following three French decree proposals:

> **2020/280/F** – ‘Decree amending the list of techniques for obtaining genetically modified organisms traditionally used without any noted drawbacks with regard to public health or the environment’
>
> **2020/281/F** – ‘Order laying down the list of varieties mentioned in Article 2 of Decree [xx]’
>
> **2020/282/F** – ‘Order amending the Official Catalogue of Species and Varieties of Cultivated Crops in France (rape seeds and other crucifer seeds)’

As these proposals are based on the same ‘Brief statement of grounds’ provided by the notification details, they will be addressed together in this opinion and will hereafter be referred to as the ‘French decree proposal’. Please note that all descriptions herein refer to plant varieties, in some cases referred to simply as variety/varieties.

Executive summary

The Plant ETP urges the EU Commission to prepare a detailed opinion to the French decree proposal, so that its intent (i.e. what issue France intends to resolve), its scope and its reach become clarified. The Plant ETP members unanimously are of the opinion that the French decree proposal will negatively impact the entire agricultural (agri) value chain, is counterproductive to the goals set forth in the Green Deal, and that a full withdrawal is needed.

Recital 17 of Directive 2001/18 (hereafter referred to as the GMO Directive) determines that varieties obtained through mutagenesis are exempted from its scope due to the 'long safety record' of the technique. The French decree proposal challenges that mutagenesis has a long safety record when it is used in conjunction with *in vitro* cultivation, thereby discriminating between identical products, based solely on the environment in which they, or their progenitors, underwent random mutagenesis during product development.

The French decree proposal is a national initiative, that, if implemented in its current wording, will have a reach that goes beyond seed, grain and plant materials and would also raise uncertainty about their derived products. The decree is expected to impact research, breeding, production, sourcing and marketing across the agri-value chain both in and outside Europe. It will impact the free movement of goods within the EU and take away momentum in research and innovation (R&I) in plant biotechnology and breeding in the EU, fields that already lag behind other major world regions, such as China, Argentina and the USA. In France specifically, a competitive disadvantage will develop for French researchers, breeders and foremost farmers, as they will be deprived of a breeding technique, that over the past fifty years has been instrumental to develop today's varieties across the globe. French farmers will face a growing difficulty to maintain farm productivity and stay in business, while at the same time addressing the European sustainability and biodiversity objectives of the EU Green Deal.

The Plant ETP considers it plausible that the French decree proposal becomes enforced only partially when considering the implications on the agri-value chain and consumers, the technical impossibility to determine *post facto* whether varieties were directly and/or indirectly obtained using *in vitro* mutagenesis, and the provided list of proposed withdrawals of varieties from the French Official Catalogue of Species and Varieties of Cultivated Crops (hereafter referred to as the French national catalogue) that features primarily herbicide-tolerant varieties. The Plant ETP fears that even a partial implementation of the decree would lead both to product discrimination and legal uncertainty.

The Plant ETP opinion touches on two aspects: (A) a literature testimony highlighting the historic safe use of *in vitro* random mutagenesis; and (B) the foreseeable consequences of enacting the French decree proposal on the agri-value chain in France, the EU and outside the EU.

A - Testimony of historic safe use of random mutagenesis

Plant breeding depends on the availability of genetic diversity in elite breeding materials. To sustain progress, breeders refresh the genetic diversity in the breeding materials through pre-breeding activities using wild crop relatives and mutation breeding[1] (i.e. exposure of breeding materials to mutagenesis techniques followed by selection of desired features). Mutagenesis, whether by physical, chemical, or biological agents, leads to modifications of a plant's genetic material[2], thereby expanding the genetic diversity breeders can work with in the development of new varieties. The first records of induced mutagenesis in plants (barley and maize) date back to the late 1920s[3,4]. Around the same time, *in vitro* culture of plants, consisting of growing plant organs, tissues or cells on/in an artificial medium separate from the parent plant, was also developed[5].

In the 1960s and 1970s innovations in *in vitro* random mutagenesis were already well established and have led to varieties that are ubiquitously on the market today[6,7]. In this context, there is little novel innovation after 2001. Commercial applications occurred already in the 1990s. Publications from the late 1980s describe the development of herbicide-tolerant (imidazolinone) rapeseed, using mutagenesis in microspore cultures[8,9]. Of particular interest is that Clearfield® rapeseed (directly targeted by the French decree proposal) was developed using microspore mutagenesis and commercialised in 1995[10].

[1] FAO/IAEA. 2018. Manual on Mutation Breeding - Third edition. Spencer-Lopes, M.M., Forster, B.P. and Jankuloski, L. (eds.), FAO. Rome, Italy. 301 pp.

[2] Random mutagenesis techniques are defined for the purpose of this submission as any externally applied agents that can lead to heritable changes in the DNA without prior knowledge of the exact position of the resulting DNA change, and/or do not require prior knowledge of the DNA target sequence. In short, DNA can undergo a variety of chemical reactions that can result in DNA damage. These include hydrolysis, deamination, alkylation and oxidation. For each type of DNA damage, the cell has evolved a specific method of repairing the damage or eliminating the damaging compound. Depending on the efficiency and fidelity of the DNA repair processes within the cell, changes in the DNA sequence can occur. Irrespective of whether a mutagenic agent is applied *in vivo* or *in vitro*, to individual cells, tissues, organs, or whole organisms, the resulting DNA changes would only be determined by the nature of the chemical reaction between the mutagenic agent and the DNA. While the application of mutagenic agents can be done at different levels of cellular aggregation (cells, tissues, organs, or whole organisms), the activity of the mutagenic agent and its outcome, remains at the cellular and DNA level simply because the target of the mutagen is the DNA.

[3] Stadler L.J. (1928) Mutations in barley induced by X-rays and radium. *Science* 68, Issue 1756, pp. 186-187. DOI: 10.1126/science.68.1756.186

[4] Stadler L.J. (1028) Genetic Effects of X-Rays in Maize. PNAS 14 (1) 69-75; https://doi.org/10.1073/pnas.14.1.69

[5] Thorpe, T.A. (2007) History of plant tissue culture. *Mol Biotechnol* 37**,** 169–180. https://doi.org/10.1007/s12033-007-0031-3

[6] Broertjes C (1975). The development of (new) in vivo and in vitro techniques of significance for mutation breeding of vegetatively propagated crops. Presented at a conference in Tokyo in Sept 1974. https://inis.iaea.org/search/search.aspx?orig_q=RN:6218175.

[7] Broertjes C et al (1976). Mutation breeding of Chrysanthemum morifolium Ram. using in vivo and in vitro adventitious bud techniques. Euphytica, 25: 11-19.

[8] Swanson, E.B., M.P. Coumans, G.L. Brown, J.D. Patel & W.D. Beversdorf (1988). The characterization of herbicide tolerant plants in Brassica napus L. after in vitro selection of microspores and protoplasts. Plant Cell Rep 7: 83–87.

[9] Swanson EB et al (1989). Microspore mutagenesis and selection: Canola plants with field tolerance to the imidazolinones. Theoretical and Applied Genetics, 78: 525-530.

[10] Tan et al., Imidazolinone-tolerant crops: history, current status and future, Pest Manag Sci 61:246–257 (2005) at 249. DOI: 10.1002/ps.993.

In vitro tissue culture in plants was already widely used in the 1960s and enabled the streamlining of many techniques still used in conventional breeding today[11,12]. One such technique is protoplast fusion, also known as somatic hybridisation, which consists of isolating and fusing the protoplasts of different plant species or varieties[13]. Another such technique is induced mutagenesis, thereby demonstrating already in the early 1970s an interwoven link between *in vitro* tissue culture in plants and techniques for induced mutagenesis. The earliest found evidence of mutagen-treated plant cell cultures is a publication from 1976[14]. An extensive report from two FAO/IAEA meetings in 1983 and 1985, respectively, shows that these organisations were investing in pre- and post-culture induced mutagenesis in a wide range of crops already in the early 1980s[15].

Mutagenesis has since then been applied to a variety of plant tissues and cells, such as leaf explants, flowers, flower stalks, shoot tips, buds, crowns, anthers, microtubers, microspores, pollen, somatic embryos, immature and mature sexual embryos, young inflorescences, plant cells growing in liquid suspensions and callus. The relatively high rate of spontaneous somatic mutations observed in *in vitro* tissue culture further demonstrates the intimate relationship between *in vitro* techniques and induced mutagenesis[16,17]. In addition, there are also several examples of how induced mutagenesis can be applied both before and after *in vitro* culture[18].

The above literature résumé shows that the term '*in vitro* random mutagenesis' has an open definition and can technically speaking not be separated from tissue culture due to the unattributable occurrence of random mutations[19]. The full scope of the proposed French decree cannot be appreciated without addressing a number of questions, such as:

- How does the concept of "*in vitro* random mutagenesis" make a distinction between somatic mutations that arise through *in vitro* culture itself and the mutations that arise as a consequence of the mutagenic treatment?

[11] Keller WA, Arnison PG and Cardy BJ (1987). Haploids from gametophytic cells – recent developments and future prospects. In Plant tissue and cell culture. Proc. 6th Intl. Tissue Cult. Congr. Green CE et al (eds.), Inc. NY, pp. 223-241.
[12] Custers J.B.M. (2003) Microspore culture in rapeseed (Brassica napus L.). In: Maluszynski M., Kasha K.J., Forster B.P., Szarejko I. (eds) Doubled Haploid Production in Crop Plants. Springer, Dordrecht, https://doi.org/10.1007/978-94-017-1293-4_29.
[13] Sink K.C., Jain R.K., Chowdhury J.B. (1992) Somatic Cell Hybridization. In: Kalloo G., Chowdhury J.B. (eds) Distant Hybridization of Crop Plants. Monographs on Theoretical and Applied Genetics, vol 16. Springer, Berlin, Heidelberg
[14] *Sung ZR (1976). Mutagenesis of cultured plant cells. Genetics, 84: 51-57.*
[15] IN VITRO TECHNOLOGY FOR MUTATION BREEDING. REPORTS OF THE FIRST AND SECOND RESEARCH CO-ORDINATION MEETINGS ON IN VITRO TECHNOLOGY FOR MUTATION BREEDING ORGANIZED BY THE JOINT FAO/IAEA DIVISION OF ISOTOPE AND RADIATIONS APPLICATIONS OF ATOMIC ENERGY FOR FOOD AND AGRICULTURAL DEVELOPMENT HELD IN VIENNA, 31 OCTOBER-4 NOVEMBER 1983 AND 22-28 AUGUST 1985
[16] Larkin, Scowcroft (1981) Somaclonal variation — a novel source of variability from cell cultures for plant improvement. Theoretical and Applied Genetics 60: 197-214.
[17] Predieri S (2001). Mutation induction and tissue culture in improving fruits. Plant Cell, Tissue and Organ Culture, 64: 185-210.
[18] Radin DN and Carlsson PS (1978). Herbicide-tolerant tobacco mutants selected in situ and recovered via regeneration from cell culture. Genet. Res. Camb., 32: 85-89.
[19] Ruiter, R., Van den Brande, I., Stals, E., Delauré, S., Cornelissen, M. and D'Halluin, K. (2003), Spontaneous mutation frequency in plants obscures the effect of chimeraplasty, Plant Molecular Biology 53, 675-689.

- Is the choice of mutagenic agent relevant, e.g. would treatments with a plant growth regulator, that is known to cause mutations, also lead to products that would be covered by the proposed French decree?
- Is the timing of application of the mutagenic agent of relevance? The current interpretation of the proposal is that it concerns treatments during *in vitro* culture. In this case would mutagenesis prior to or after *in vitro* culture be acceptable?
- How is the 'novelty' or 'long history of safe use' of a technique to be interpreted? Given that the close connection between induced mutagenesis and *in vitro* culture is known since the early 1970s, is it then not safe to conclude that this technology was no longer novel in 2001?
- How are the categories 'plant material' and 'plant cells' to be defined? Do they refer to differentiated versus undifferentiated cells? Or rather multiple cells (plant organs) versus single cells? Will microspores be covered? Pollen? Somatic embryos? Cell cultures in liquid suspension?

The Plant ETP would like to challenge the French decree proposal on its implication that *in vitro* random mutagenesis does not have a long history of safe use. Indeed, plant varieties obtained using *in vitro* mutagenesis have been cultivated for decades, and their derived products have entered - in accordance with local rules and regulations - feed and food chains across the globe without any noted attributable negative impacts on human health and the environment, and this well before 2001.

The Plant ETP therefore does not see a justification to single out '*in vitro* random mutagenesis' as a method that in the French Environmental Code would subject organisms obtained through these techniques to the requirements of the GMO Directive, suggesting that this method has not been readily used in a number of conventional applications and does not have a long history of safe use.

B – Foreseeable consequences if the French decree proposal is enacted

By amending Article D531-2 of the French Environment Code, the French decree proposal would lead to plant varieties having been obtained using *in vitro* random mutagenesis as non-exempted GMOs, while these same varieties will remain exempted in the rest of the EU. This will have a number of impacts, as described below:

1. <u>Discrepancy with EU law</u>

   The French decree proposal aims at deleting specific varieties from the French national catalogue, while more generally regulating varieties obtained through *in vitro* random mutagenesis as GMOs.

   According to Article 15, Paragraph 2 of Council Directive 2002/53/EC on the common catalogue of varieties of agricultural plant species:

'*Member States may revoke the acceptance of a variety: (a) if the laws, regulation and administrative provisions adopted in pursuance of this Directive are not complied with; or (b) if, at the time of the acceptance or during examination, false or fraudulent particulars were supplied concerning the factors on the basis of which acceptance was granted*.'

Neither of these two conditions are referred to by the proposed French decree. Therefore, a removal of these varieties from the French national catalogue would appear to infringe on EU law.

Moreover, a distinction between *in vivo* and *in vitro* mutagenesis has not been made at the EU or Member State level when implementing the seed legislation on plant reproductive material, or when putting in place the GMO Directive. This distinction was also not made in the ruling of the European Court of Justice (case C-528/16) of 25 July 2018. Therefore, the proposed amendment of the list of techniques for obtaining GMOs, traditionally used without any noted drawbacks with regard to public health or the environment (draft notification 2020/280/F), sets a precedence by introducing a material difference between *in vitro* and *in vivo* (random) mutagenesis. Such a difference is not supported by any scientific rationale and/or evidence.

Article 3(1) of the GMO Directive stipulates that the Directive shall not apply to organisms obtained through the techniques of genetic modification listed in Annex I.B. The Plant ETP notes that the list of exempted technique described in Annex I.B follows the disclaimer:

'Techniques/methods of genetic modification yielding organisms to be excluded from the Directive, on the condition that they do not involve the use of recombinant nucleic acid molecules or genetically modified organisms ***other than those produced by <u>one or more</u> of the techniques/methods listed below***'.

As both *'(1) mutagenesis'* and *'(2) cell fusion (including protoplast fusion) of plant cells of organisms which can exchange genetic material through traditional breeding methods'* are listed in Annex I.B, the combination of those two techniques is also exempted from the scope of the GMO Directive. However, one cannot separate cell fusion or protoplast fusion from *in vitro* culture, as the cells or protoplasts need to be isolated from the plant (see section A). Annex I.B therefore clearly implies that mutagenesis in combination with *in vitro* culture is exempt from the scope of the GMO Directive.

There is no indication or legal grounds in the GMO Directive that the exemption of Article 3(1) should not apply to *in vitro* random mutagenesis, as opposed to other forms of (random) mutagenesis. By redefining 'mutagenesis', the French decree proposal provides a national interpretation of the scope of the GMO definition, and thereby undermines, at the French national level, the harmonised scope of Article 3(1) and Annex I.B of the GMO Directive. The French decree proposal is therefore technically arbitrary, because it lacks any technical explanation, justification or precedence, and is legally flawed.

The proposed French decree sets furthermore a precedence for differential interpretation of the GMO Directive across the EU Member States. If each EU Member State were to differentially interpret which techniques are in/out of the scope of the GMO Directive, it would result in a non-harmonised regulatory framework and cause legal uncertainty both in and outside the EU. In this respect the Plant ETP highly supports the ongoing TRIS procedure that aims at harmonising EU legislation and calls for the complete withdrawal of the French decree proposal.

2. Effects on the EU single market

The proposed French decree is expected to interfere with the free movement of goods, particularly seeds, grains and products derived thereof, both within the EU and internationally. If seeds, grains, plants and their derivatives, obtained from varieties that have undergone *in vitro* random mutagenesis, should be regulated as GMOs in France, while the same varieties remain exempted from the scope of the GMO Directive in the rest of the EU and internationally, France would have to significantly restrict import of such products, thereby creating an internationally unique barrier to trade.

The Plant ETP would consider that a strict enforcement of the proposed French decree would not be workable as outlined below in part B.3. This applies amongst others to the import of products: France would need to conduct a systematic monitoring and testing of all seeds, grains, plants and their derived products entering its territory. France would have to do so for a broad panel of different products and product volumes, in the absence of information about whether these products classify as GMOs under the proposed French decree, and in the absence of any detection method (see also section B.3 for more details).

3. Issues of enforceability

If the proposed French decree were to be implemented in its current wording, seeds, grains, plants and their derived products, obtained by *in vitro* random mutagenesis, would be regulated as GMOs in France, and not in other Members States or in the rest of the world. The Plant ETP believes that if such a proposal was implemented, it should be the sole responsibility of France to enforce it. For this, France would need to know which plant varieties have undergone *in vitro* random mutagenesis, either recently, or as part of mutation breeding within their pedigree, in order to exclude them from its national catalogue, as well as from the food and feed value chains, including imports. The Plant ETP raises two issues regarding the enforceability of such an exclusion:

- Mutagenesis has been applied to create genetic variation in crops for almost a century (as described in section A). The breeder's exemption[20] enables breeders worldwide to freely use

[20] UPOV convention and implemented in the EU by Council Regulation (EC) No 2100/94 of 27 July 1994 on Community plant variety rights

protected varieties as sources of initial variation to create new varieties, thereby combining and enhancing desirable traits. Due to this common practice, it is expected that most, if not all, current plant varieties originate from germplasm that, at some point in its breeding history, has undergone some type of mutagenesis.

- There has historically been no regulatory requirements in Europe or internationally to maintain records about the methods used to develop a variety, other than for transgenesis. Unless specified by the breeder/researcher, it cannot be determined *post facto* whether a variety was obtained through *in vivo* or *in vitro* random mutagenesis, or any other mutagenesis technique.

It is therefore technically impossible for France to make a comprehensive retroactive assessment of which of the current varieties are 'free of *in vitro* mutagenesis'. This unknown will create legal uncertainty for business operators that might unintentionally bring unauthorised GMOs to the French market.

Due to the difficulty to enforce the French decree proposal, France may opt to remove varieties from the French national catalogue for which there are doubts concerning their ancestry. However, this is highly undesirable as it would result in a substantial reduction of the varieties available in the French national catalogue and come at a detriment to international trade (as described in B.2), as well as the entire agri-value chain (as described in B.4).

4. Threat to sustainable agriculture and competitiveness in France

If the French decree proposal were implemented and enforced as described in B.3, French consumers would see an increase in food pricing and a reduced diversity in offerings and choices, while French agri-value chain players would see a loss of competitiveness. The Plant ETP lists here some of the expected consequences the proposed French decree will have on the different agri-value chain players:

- In the agri-value chain, many of the French farmers operate with small profit-margins and this situation will worsen when farmers loose access to crop varieties with desirable traits. With each summer being increasingly warmer and drier than the previous year, farmers need access to the best and most resilient crop varieties. Removing resilient/desirable crop varieties from the French common catalogue will result in French farmers becoming disadvantaged and less competitive than farmers outside France and may turn their businesses unprofitable. The loss of access to crops with desirable traits would also hinder the ability of French farmers to transition to more sustainable agriculture.
  It should be noted that the French decree proposal will allow farmers to harvest and market their produce this year, even if it would be deleted from the French common catalogue as a

result of the decree, or be considered GMO in the newly proposed definition. However, there remains a risk that farmers may need to destroy some of their future harvests, due to the adventitious presence of these retroactively unauthorised GMOs, and with that their respective income.

- In addition to the financial loss related to the loss of competitiveness, French raw material processers and food and feed producers would also face sourcing and logistical issues when importing raw materials from outside France as described in B.2. Typically, sourcing strategies have an international dimension, and are set up to allow for best quality/price ratios, for purchase volumes leading to minimal inventory and maximal infrastructure usage throughout the year, and for a predictable, continuous supply. By interfering with sourcing, the French decree proposal would put further economic strain on agri-value chain players, and lead to an increase of liquidations and consolidations.

- French public and private research would also be negatively affected by the proposed French decree. The Plant ETP raises concerns about the effect on the exchange of research materials as part of international research collaborations. French researchers would not be able to freely exchange research material that has undergone *in vitro* random mutagenesis, a technique often used for gene discovery research. It might also prove difficult to gather the information needed to determine whether *in vitro* or *in vivo* random mutagenesis was conducted to obtain certain research materials (as described in section B.3). If such information is available, we note that it is by no means comprehensive and complete. Furthermore, special GMO permits and associated tests would be needed to use and to grow research materials obtained using *in vitro* random mutagenesis in controlled, closed environments. This might lead to operational restrictions for institutes that are not GMO-certified or have limited space and/or budget to expand infrastructure. Most importantly, the decree proposal would put an end to field trials using such materials, as France does not allow GMO field trials on its territory. The above combined implications of the decree proposal are therefore expected to isolate both public and private research in France, and to lower the capacity to innovate.

- French seed breeders will also be affected by the French decree proposal, due to loss of competitiveness on the international market and restrictions to their breeding programs in France (described in previous bullet). The ban on field trials of crop varieties having undergone *in vitro* random mutagenesis, either directly or through its pedigree, would render it impossible for French breeders to properly select desirable traits based on outdoor field trials. If the French decree proposal were to be enacted, French seed breeders, or breeding companies with a focus on the French market, would have to separate breeding programs for

the French market. Depending on the crop species, this might economically not be viable and restrict the availability of varieties for French agriculture. It would require French breeding companies to restart their breeding programs with "trusted" materials, implying a period of at least five to eight years during which no or few new varieties would reach the market. A wave of liquidation, consolidation and relocation of French breeding companies would be expected.

5. Risk of discrimination

The Plant ETP raises its concerns regarding the potential for product discrimination if the French decree proposal were enacted. As described in part B.3, the enforceability of the decree would require removing varieties from the French national catalogue without the necessary information to indiscriminately determine which varieties have undergone *in vitro* random mutagenesis.

Based on the listings provided, it appears that the proposed decree is not enacted in its entirety, because of which specific products are being discriminated against. The French decree proposal targets specific herbicide-tolerant varieties, such as the herbicide-tolerant Clearfield® oilseed rape varieties, that, if the decree proposal were enacted, would be deleted from the French national catalogue.

The French decree proposal may furthermore trigger a second type of discrimination as it would imply different safety concerns for two identical products, depending on the environment to which the parental or progenitor lines were temporarily exposed (i.e. *in vitro* or *in vivo*). To make such a distinction has no scientific basis and is subjective. Constitutionalisation of unscientific justifications will open the door to more of such actions, and set a precedence for Member States to interpret the scope of the EU GMO Directive to fit national interests, leading to a non-harmonised regulatory framework in the EU and open product discrimination.

6. Risk to EU innovation and the Green Deal

The Plant ETP supports European R&I by providing a multi-stakeholder perspective, in order to advocate for policies that benefit the entire agri-value chain. The EU is often considered a world leader in science. Its aversion to certain enabling innovations in the plant biotechnology field is expected to slow down the R&I in agriculture and render EU breeding and farming internationally less competitive, causing it to fall behind countries like the USA, Argentina and China.

The global trend in agriculture is to stepwise embrace big data and R&I approaches to maximally use scientific data on plants, disease and pests, soil, water, weather and climate to develop better varieties, better agronomic practices and better cropping systems, thereby ultimately enabling farmers to optimise their production in a sustainable way. The French decree proposal, if enacted in

its current wording, will put additional strain on this development, impacting the entire European agri-value chain by removing the French demand for state-of-art varieties, thereby significantly interfering with the necessary focus, critical scale, and EU-wide cooperation in European R&I.

The demanding targets of the EU Green Deal require smartly managed, multi-year investments in R&I. For this, Member States must act together in a unified manner and R&I needs to be supported both at the EU and national level. The French decree proposal, through its rejection of a well-established and safe breeding method, is in direct opposition with this. If enacted, it would directly affect breeding innovation and efficiency processes in France, with a domino effect on the rest of the EU. This would slow the pace at which new varieties can be bred compared to international efforts, leading to a loss of competitiveness of all EU agri-value chain players, as well as directly reducing European self-sufficiency and the sector contribution to the Green Deal targets.

Conclusion and call for action

The French decree proposal is expected to impact negatively the entire agri-value chain in France as well as in the EU. This includes academia, breeders, farmers, traders, raw material processors, end product producers, retailers and consumers. Furthermore, if implemented, it would set a precedence for Member States to interpret EU legislation to their own benefit and lead to a non-harmonised EU regulatory framework.

The implications of the proposed French decree could have such a wide reach on France itself that it is difficult to envisage how France intends to enforce it. Currently the focus of the proposed French decree seems to be on herbicide-tolerant oilseed rape varieties. However, the wide scope of the French decree proposal leaves the entire agri-value chain in legal uncertainty.

The Plant ETP and its members urge the EU commission to take action to prevent the French decree proposal from being enacted.