

## **Genome editing**

# **Improving legislation and starting flagships to better address climate, environmental, food and health challenges**

4<sup>th</sup> Informal meeting, online, 14.5.2021

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*Brussels, 4.10.2021*

**The European Plant Science Organisation (EPSO) invited policy makers to join EPSO members in a 4<sup>th</sup> informal meeting exchanging views on the current situation of genome editing (GE) in Europe and possible next steps to enable Europe to better address climate change, achieve food and nutritional security, and establish a sustainable agriculture in Europe and world-wide.**

After an introduction, there was a tour de table: participants from 16 countries and European level were 18 scientists, 27 policy makers from governmental bodies and 2 Members of the European Parliament (MEPs). They discussed which steps could they take to bring the discussion forward on the EU legislation and facilitating potential flagships. The meeting was held under Chatham House Rules.

**In the first part of the meeting**, participants discussed the **current legislation - how it could be improved** in the short and in the longer term.

**Two MEPs** presented their personal views regarding the regulatory framework and its disadvantages, particularly regarding farmers and trade issues. They expressed the hope that the Commission will present an initiative to update the legislation. It was pointed out that the Commission decided not to act on its own, meaning that sufficient interest must be expressed by Member States and stakeholders. In essence, the Commission should receive substantial input from these sides.

The question of IP rights under the current and possible updated legislation regarding GEs was discussed, also with respect to Plant Breeders' Rights. This was also put in context of competition in the marketplace and between trading partners and blocks.

It was widely seen that there is a need to free public discussion from myths and untruths about GEs and to bring the discussion into the realm of fact-based analysis of the risk-benefit matrix for the GE approaches.

**Views from the various ministry participants were presented.** Given the recent report date (the EC study was published 29.4.2021), it was seen as too soon to assess the possibility of progress thereafter. It was suggested that one way forward would be to have regulations in line with the ECJ Advocate's report predating the 2018 ECJ decision. These could govern methods for variety approval, i.e., that the NGTs could be regulated in the DUS (distinctiveness, uniformity and stability) testing protocol. There is a need for a risk-proportionate legal tool.

Another ministry representative pointed out that not only the precautionary principle, but also the proportionality principle, must be invoked when considering regulation of GEs. Others remarked that

the current legislation is clearly no longer fit for purpose, and beside proportionality, flexibility is needed. More precisely, differential risk assessment is needed for the specifics of the genetic changes – this is in essence moving closer to a product-based, rather than process-based system, where methods that do not insert DNA into the genome must be excluded from regulation as GMOs.

Many said that they welcomed the Commission report, but that they now look to the EC for further action.

However, some ministries in some member states appeared satisfied with the current legislative regime. Objections to changes appeared to emanate from the Organic sector, which does not differentiate between GMOs and GEs.

In some member countries, evaluation of the Commission report was still at a preliminary stage, and no position had yet been formed.

The question of the EU's trading partners for agricultural products not regulating GEs as GMOs, and the problems it raises for imports was discussed. It was pointed out that DEFRA in the UK had a consultation on the position of GEs in March, and a response based on that process will be given in June. Liberalisation of GE regulation could be seen as a "Brexit dividend" for UK researchers, breeders, producers and farmers.

It was **summarized** that the primary way forward is to: 1) engage with the EC to suggest ways forward to improve the legislation in Europe so that GE can be utilized to address climate change, environmental sustainability and Food and Nutritional Security; 2) have more comprehensive communication and narratives that illustrate how GE can contribute benefits to society; 3) perform more national consumer surveys based on the Norwegian questionnaire to compare appreciation of new technologies to address societal challenges across Europe.

### **In the 2<sup>nd</sup> part of the meeting, Flagships towards GE products were discussed:**

A brief discussion of the known European stakeholder and consumer surveys on GE was held, particularly those of Norway, Sweden, and Switzerland, which have been completed. It appears that the more consumers know about GE, the more positive they are about it. GE for environmental or health benefits was more strongly supported than that for colour / shape properties in food. The views on whether GE was seen as GM appears strongly linked to the phrasing of the question. Many ministry colleagues asked for the questionnaire template kindly offered by the Norwegian colleagues to consider a similar consumer survey in their respective countries and compare the outcomes across Europe later on.

An overview was presented of various research initiatives ongoing in the Europe in which GE is used or planned to be used.

### **Conclusions and actions**

Participants agreed to continue the open dialogue between the science and policy participants from this meeting. Ministry participants kindly offered to contact ministry colleagues from countries not participating in the meeting yet, but interested in the issue, to contact EPSO expressing their interest to join the next such informal meeting.

The 5<sup>th</sup> meeting will be held end October / early November 2021 and will focus on a discussion about the EC roadmap (inception impact assessment), a follow-on of the report, expected to be published end September with a public consultation of around 4 weeks.

It will further discuss encouraging flagship projects towards genome edited products with consumer benefits for the European market and ensuring equal opportunities for all approaches to contribute to and to be combined to better address climate change, achieve food and nutritional security, and establish a sustainable agriculture in Europe and world-wide.

EPSO offers to collaborate with policy makers to develop appropriate future-ready regulations that enable the European public sector, small- and medium-sized companies and farmers to contribute more comprehensively to food and nutritional security and to use all available tools to reduce the environmental impact of agriculture. Notwithstanding the technical options retained, EPSO supports a science-based revision of the present European legislation establishing a more proportionate product-based risk assessment. EPSO is also willing to contribute to the societal debate on genome editing and to communicate in a fact-based and yet accessible manner about innovative plant science and its societal role.

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## About EPSO

EPSO, the European Plant Science Organisation, is an independent academic organisation that represents more than 200 research institutes, departments and universities from 32 countries, mainly from Europe, and 2.600 individuals Personal Members, representing over 26 000 people working in plant science. EPSO's mission is to improve the impact and visibility of plant science in Europe, to provide authoritative source of independent information on plant science including science advice to policy, and to promote training of plant scientists to meet the 21st century challenges in breeding, agriculture, horticulture, forestry, plant ecology and sectors related to plant science. <https://epsoweb.org> | EU Transparency Register Number 38511867304-09

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## Annex References

EC: [Study on new genomic techniques](#), 29.4.2021  
Court of Justice of the EU: Judgment in Case C-528/16, 25.7.2018. [EN Press Release](#); [Ruling in EN](#): Advocate General's Opinion in Case C-528/16, 18.1.2018. [EN Press Release](#): [Opinion in English](#)

EPSO on EC strategies, Food and Nutritional Security ...:

- EPSO concepts, research areas and their contributions to the EU Green Deal – the Farm to Fork and the Biodiversity Strategies – presented at the meeting
- [EPSO welcomes the European Commission's study regarding the status of novel genomic techniques \(NGTs\) under European Union law](#), 30.4.2021
- EPSO: [Genome editing – Improving legislation and starting flagships to better address climate, environmental, food and health challenges](#), Report 3<sup>rd</sup> informal science and policy meeting, 16.2.2021
- EPSO: [Statement on the Draft Strategic Research and Innovation Strategy by the Biodiversity Partnership Consortium](#), 29.1.2021
- EPSO: [Online Workshop Implementing a Plants and Microbiomes Strategy in Europe, 13-14.1.2021 started, 13.1.2021](#)
- EPSO: [Statement on the Farm to Fork Strategy by the European Commission](#), 2.6.2020

Surveys

- The **Norwegian** Biotechnology Advisory Board (2020).
  - Norwegian consumers' attitudes toward gene editing in Norwegian agriculture and aquaculture. [www.bioteknologiradet.no/filarkiv/2020/04/Report-consumer-attitudes-to-gene-editing-agri-and-aqua-FINAL.pdf](http://www.bioteknologiradet.no/filarkiv/2020/04/Report-consumer-attitudes-to-gene-editing-agri-and-aqua-FINAL.pdf)
  - Questionnaire available upon request
- First outcome from the **Swedish** survey was presented at our meeting link from publication / report?
- Survey on NGTs in **Finland**
  - report <https://julkaisut.valtioneuvosto.fi/handle/10024/163143> ;
  - Blog <https://www.vttresearch.com/en/news-and-ideas/it-time-introduce-new-genetic-techniques-europe-well>
- ETH study in **Switzerland**: Angela Bearth, ETH / CH
  - Saleh , R, Bearth, A, Siegrist, M ( )2021) . How chemophobia affects public acceptance of pesticide use and biotechnology in agriculture. Food Quality and Preference 91, <https://doi.org/10.1016/j.foodqual.2021.104197>
  - The video of a workshop: [https://geneticresearch.scnat.ch/en/events/uuid/i/4b5f727d-b532-5e04-8b79-02f4ad2fd78c-CRISPR\\_and\\_food\\_production](https://geneticresearch.scnat.ch/en/events/uuid/i/4b5f727d-b532-5e04-8b79-02f4ad2fd78c-CRISPR_and_food_production)

Please refer to the Annex II and III o the [2<sup>nd</sup> meeting report](#) for

- Regulations and obligations for conventional breeding and variety testing
- Regulations and obligations for GMO breeding and testing in the EU.