



EUROPEAN COMMISSION  
SECRETARIAT-GENERAL

Directorate D  
SG D.3 – Resource Efficiency

Brussels, 6 June.2018

SP(2018) 392

NOTE TO MEMBERS OF THE COMMISSION

**Subject: European Parliament. Meeting of the Committee on the Environment, Public Health and Food Safety (ENVI). Brussels, 16-17 May 2018**

**Summary record**

Out of  
scope

[Redacted content]

*The public hearing on New Breeding Techniques, organised by AGRI in association with ENVI on 17.5 discussed and debated the use of New Breeding Techniques. The Committee concluded that the discussions will continue, especially on the legal issues.*

*signed*

Personal data

[Redacted signature]

Further information: [REDACTED], SG D3

Personal data

Out of  
scope

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**1.3 Public hearing on New Breeding Techniques organised by AGRI in association with ENVI**

The Hearing was chaired by MEP Czesław Adam Siekierski, Chair of the Committee on Agriculture and Rural Development, and MEP Pavel Poc, Vice-Chair of the Committee on the Environment, Public Health and Food Safety.

Programme was organised in two panels, introduced by three expert presentations each, followed by Q&A sessions:

Panel 1: Use of New Breeding Techniques

- [REDACTED], [REDACTED] Plantum, the Seed Association in the Netherlands,
- [REDACTED], engineer at "France Limousin Sélection" and responsible for R&D at "Pole de Lanaud",
- [REDACTED], INRA [REDACTED],
- Q&A session.

Personal data

• Panel 2: New Breeding Techniques and the EU Legislative Framework

- [REDACTED], [REDACTED] "Rijk Zwaan Zaaiteelt en Zaadhandel B.V.",
- [REDACTED], [REDACTED] at the Federal Office of Consumer Protection and Food Safety,
- [REDACTED], [REDACTED] Bio Consom'acteurs,
- Q&A session.

Panel 1: Use of New Breeding Techniques (NBTs)

- [REDACTED] - Innovation in plant breeding and societal goals

highlighted the important role played by plants for humans and economy and the need for all farmers, growing either conventional, organic or GM crops, to have good seed. He referred to the evolution of breeding practices and to the need to develop new varieties tackling modern challenges (e.g. more resistant and requiring less chemicals). New techniques offer several advantages: products similar to conventional breeding but with faster development process, less side effects, more accessible to small companies, providing opportunities to address goals of the new CAP and UN sustainable development goals.

- - Use of New Breeding Techniques applied to cattle

focused on the opportunities offered by NBTs in the animal breeding sector. “France Limousin Sélection” is an association, managed by farmers, aiming at the genetic improvement of the bovine race «Limousine». New techniques offer the possibility to (i) modify genes responsible for useful traits that have not been successfully modified so far; (ii) maintain genetic gain and genetic diversity and select low frequency desirable traits; (iii) increase efficiency of breeding programs of livestock production with a long cycle like cattle. Gene editing will only complement conventional breeding programs and not substitute them. also stressed that if genome edited animals are considered as GMOs, EU breeders will lose competitiveness at international level. Social and breeders acceptance is also needed for the success of these techniques. He explained that breeders are in favour of genome edited breeds, but not of their patentability.

- - Fact checking on New breeding techniques

questioned the concept that mutagenesis is the continuation of traditional breeding. He stressed that, as for transgenic GMOs, there are numerous unintended effects resulting from new techniques and they are not predictable and identifiable. Various detection methods are available, but they have a number of limits. Risk assessment guidelines are missing. also highlighted that there are methods to identify the technique used for the genetic modification. He considered that language used for communicating on this issue is often misleading. He concluded that NBT products should be encompassed by the GMOs legislation and risk assessment guidance should be updated to cover NBTs.

- Q&A session. MEPs’ interventions:

- MEP J.S. Agnew (EFD<sup>2</sup>, UK) stressed the need that NBTs be able to develop tolerance to diseases in animals and plants rather than resistance.
- MEP A. Schreijer-Pierik (EPP, NL) asked how the European Parliament can make the right steps and draw a line between “what we want and what we do not”, considering the heated, rarely scientific, debates in the EP.
- MEP T. Waitz (Greens/EFA, AT) referred to the loss of biodiversity, the disappearance of thousands of species, the development of tolerance and resistance. He said that while there are no problems in speeding up gene analysis, there are concerns on genetic modifications. He asked about possibilities to use normal genetics and how to ensure consumer information through traceability and labelling.
- MEP B. Belder (ECR, NL) asked for specific examples of applications and requested the Commission for follow-up on legal clarity on NBTs.

- MEP A. Hazekamp (GUE/NGL, NL) referred to the lobbying of industry, the need of consumers to be informed about “what they are eating” and the need for traceability and labelling. She asked how industry intends to implement traceability under the current legislation which she said is adequate for this purpose.
- MEP J. Bové (Greens/EFA, FR) underlined that there are new forms of genetic manipulation, with however the same traits as GMOs, i.e. resistance to herbicides, pesticides. He asked confirmation that NBTs should be regulated under the GMO legislation.
- MEP J. Huitema (ALDE, NL) underlined that agriculture implies changing nature for our benefits and that breeding is beneficial for both conventional and organic farmers (e.g. phytophthora for organic potatoes in NL). He called for a genuine and open discussion on impact of patents, effect on the environment, ethical implications and consumers’ needs, taking into account that NBTs are producing organisms different from GMOs.
- MEP P. Jahr (EPP, DE) asked: (i) whether, with the need for modernisation, we can draw a line between natural and non-natural; (ii) how we can ensure independence for farmers and SMEs; and (iii) how we can improve protein production in the EU.
- MEP J.P. Denanot (S&D, FR) emphasised the need to consider the level of social acceptance as well as competitiveness. He underlined the need to consider social and legal aspects to set the limit between GMOs and non-GMOs.
- MEP S. Melior (S&D, DE) stressed the need to consider biodiversity and ethical aspects and to involve scientists in the debate. She asked whether traceability can be ensured with NBTs, in particular with CRISPR/Cas.
- MEP P. Loiseau (ENF, FR) highlighted the problem of monitoring products imported from non-EU countries where NBTs are being used (e.g. US decided not to regulate these products). He also requested the Commission to clarify how to ensure that these products do not enter the EU market.
- MEP G. Balas (S&D, FR) stressed that the legal status of NBTs should be clarified. He asked what are the unintended effects and the impacts on the environment of these techniques, what should be recommended for traceability and what should be expected from legislation.
- MEP E. Andrieu (S&D, FR) underlined that so far, profits went only to certain people within society. He called for a case-by-case assessment of legislation.
- MEP M. Häusling (Greens/EFA, DE) stressed the need for risk assessment and for labelling to inform farmers and consumers. He asked for more concrete information on unintended effects and potential risks and for clarification on whether patenting is protected or not, since this is important for breeding.
- MEP L.M. Flanagan (GUE/NGL, IE) advocated the possibility to learn from the past, rather than always rely on technology.

Answers:

Personal data

- ██████████ replied that many mutations may occur as unintended effects, also with CRISPR/Cas, and that, in this respect, it is important to sequence the full genome of the organism. He explained that there may be

Personal data

long-term effects and that risk assessment guidance has to be updated, especially on epigenetics. He insisted that traceability is possible and that there is a need to look at the overall benefits for society.

- [REDACTED], on the concepts of “natural” and “not natural”, replied that agriculture and plant breeding are not “nature”, but they are “natural”, because “we learn from nature”. Regarding mutations, he explained that they can be good or bad and that some NBTs use the natural repair mechanism of the cell.
- [REDACTED] explained that there is a need to conserve rare breeds and genetic diversity, that genetic technology could help in this respect and that very reliable traceability system are available in the EU.

## Panel 2: New Breeding Techniques and the EU Legislative Framework

- [REDACTED] - New Breeding Techniques and the EU legislative framework  
[REDACTED] presented the vegetable seed market. He referred to the long history of plant breeding. The comprehensive EU legal framework entails extensive checks that ensure safe and affordable food to citizens. He called for the need to provide legal clarity on NBTs and a worldwide level playing field to allow vegetable companies to compete. [REDACTED] referred to non-EU countries that have already taken a decision on NBTs. He claimed that these techniques cannot be distinguished from conventional techniques. Therefore, it would be difficult for companies to enforce the GMO legislation if NBT products were considered GMOs. He concluded calling for the EU to act to provide legal clarity to farmers, breeders and consumers.
- [REDACTED] - Genome Editing – Where precaution meets innovation  
[REDACTED] provided an overview on the state of play on genome editing and the work done since 2007 on the legal status of NBTs. He explained the interpretation given by the German Federal Office of Consumer Protection and Food Safety, which considers that some NBT products are GMOs, while others are not or are exempted. He also explained the Office’s interpretation of the conclusions by the Advocate General Bobek on the mutagenesis case submitted to the CJEU. [REDACTED] underlined that the precautionary principle does not mean zero risk and that the refusal to use NBTs also bears some risk. He mentioned that legislation, other than GMO legislation, may be applicable to NBT products. He also explained that off-target effects do occur with genome editing but they are much less than those obtained with chemical or radiation mutagenesis.
- [REDACTED] - The use of new breeding techniques  
[REDACTED] highlighted that food is a fundamental part of wellbeing and health and explained the missions of her organisation. In the last 10 years there has been an increase in consumption of organic products. In the view of the organisation, she underlined that organic producers and consumers need the guarantee that products are without pesticides and GMOs and that there is a need for a legal framework to support this. She emphasised that NBTs should be considered GMOs and should be subject to evaluation and authorisation before being placed on the market, with traceability and labelling requirements. [REDACTED] also stressed that producers are responsible to guarantee the right of

choice of consumers and that new programmes for public research should be promoted.

- Q&A session. MEPs' interventions:
  - MEP J.S. Agnew (EFD<sup>2</sup>, UK) underlined that the equation between NBTs and GMOs in the legislation is unwise, as it is difficult to distinguish NBTs from conventional breeding, but the legislation can succeed in ensuring labelling and traceability of NBT products.
  - MEP P. De Castro (S&D, IT) asked whether it is correct that NBTs differ from GMOs because they result in intra-species modification and not in transfer of genetic material between species.
  - MEP A. Hazekamp (GUE/NGL, NL) asked how organic farmers can have access to seeds which are not patented and how to ensure that patents are not violated.
  - MEP M. Scott Cato (Greens/EFA, UK) stressed that in the medical sector genome editing is considered genetic modification with recognised off-target effects which raise safety concerns. She asked what these off-target effects are and what the consequences on food produced with these techniques. She also asked why these techniques should be treated differently in the agricultural sector where the exposure is much higher than in the medical sector.
  - MEP A. Schreijer-Pierik (EPP, NL) referred to the opinion of the Advocate General and stressed that genome edited products are different from GMOs. She called for a serious debate and stressed the need to decide on the way forward.
  - MEP H. Dorfmann (EPP, IT) referred to the need not to make the same mistakes as with GMOs. He asked [REDACTED] how much of their R&D is spent on NBTs.

Personal data

Answers:

- [REDACTED] replied that good seed for organic farmers should be seeds that are not contaminated by other seeds and that consumers of organic products do not want the use of NBTs in these products.
- [REDACTED] explained that many studies show that CRISPR/Cas has less unintended effects than classical breeding. Classical breeding has a safe history of use which justifies exclusion from the legislation. Therefore he questioned why products similar to those should be regulated.
- [REDACTED] stressed that patentability and legal status are two separate discussions. He expressed the view that plant breeders' rights are the most suitable form to protect and share innovation and that, especially in the vegetable sector, the International licensing platform is very useful to give each other access to new inventions.

Conclusions

- MEP Pavel Poc concluded that the Committee will continue giving maximum attention to this topic, keeping in mind the need to ensure health, food safety and environmental safety.
- MEP Czesław Adam Siekierski confirmed the need to have a comprehensive understanding for the future and that NBTs will be used successfully to benefit

