

OPEN LETTER : SERIOUS CONCERNS ABOUT THE EU COMMISSION PROPOSAL ON NEW GENOMIC TECHNIQUES

The European Commission has launched a proposal for the (de-)regulation of new genetically modified organisms (GMOs) or New Genomic Techniques (NGTs). As academics, from interdisciplinary fields working in the areas of food, agriculture and sustainability, we are very concerned about the quality of this legislative proposal, the process by which it came into being, and the social, economic and environmental impacts it will have, should it be adopted. Moreover, we have serious questions about the way in which climate and sustainability goals are being used to justify this (de-)regulation.

● Democratic decision-making

As the intended large-scale deregulation of GMOs represents an irreversible change to our eco- and food systems, we are convinced that this proposal should be treated with the utmost caution. The attempt to rush this proposal through before the European elections, without thorough health, environmental and socio-economic impact analysis or significant public debate, is downright worrying.

Studies show that a very large proportion of European citizens believe that new GMOs (NGTs) should be regulated in a similar way to other GMOs.¹ According to a recent Ipsos poll, only 3% of those surveyed thought neither labelling nor safety tests were necessary.² However, abolishing labelling and safety tests is exactly what is on the table with the current proposal. In 2022, more than 400,000 European citizens signed a petition urging the EU to keep safety testing, transparency and labelling for all GMOs.³ In March 2023, 340 organisations wrote to Commissioner Timmermans with the same demand.⁴ In other words, **the Commission is coming up with a proposal that is not supported by the European people, but nevertheless threatens to become legislation without their participation or even their knowledge.** Citizens thus risk facing a *fait accompli* which they do not support. Citizens' trust in European politics is already low. This proposal threatens to further undermine that trust.

Moreover, **the development of the Commission's proposal is biased and can hardly be called democratic.** Stakeholder groups from the agricultural sector,⁵ non-governmental environmental organisations and European lobby watchdog groups repeatedly denounced the fact that critical voices were systematically

¹ Rathenau Instituut (2023). *Aanpassen onder voorwaarden – Hoe Nederlanders denken over nieuwe genomische technieken in voedingsgewassen*. Den Haag. Auteurs: Habets, M., I. Pirson, P. Macnaghten en P. Verhoef.

² The Greens/EFA. (2021). GM crops and consumer rights. [<https://extranet.greens-efa.eu/public/media/file/1/6910>].

³ <https://demeter.net/keep-new-gm-food-strictly-regulated-and-labelled/>

⁴ Open letter: regulation of new genomic techniques <https://friendsoftheearth.eu/wp-content/uploads/2021/03/New-GMOs-letter-300320.pdf>

⁵ Open Letter European Coordination Via Campesina. Supporting the deregulation of new GMOs amounts to destroying GMO-free agriculture. [Online publication](#) 04.09.2023

ignored in the drafting of the proposal, even though they were merely defending general interests such as healthy food, a liveable agriculture and a healthy living environment.⁶ The stakeholders who were well heard by the European Commission appear to be mainly actors with a direct financial interest in deregulation.⁷

- **Lip service**

Underlying the proposal is a rather arbitrary distinction between Category 1 and 2 plants, with the latter group broadly remaining subject to the current regulations, while the former is fully deregulated. However, the Commission's criteria for assigning new GM plants to Category 1 are arbitrary and without scientific foundation. There is no evidence to justify the assumption that a new GM plant with less than 20 intended genetic modifications of the types described by the Commission will be any safer or less risky than a new GM plant with more than 20. On the contrary, scientists point out that risk does not depend on the number of genetic modifications, but on what they do. Yet the proposal does not require any investigation of unintended and/or genome-wide effects that may arise from the intended genetic modifications. A recent study by the German Federal Agency for Environmental Protection (BfN) showed that 94% of NGT plant applications which are currently in the pipeline would fall into Category 1, even though they may be very different in their biological properties and effects from the non-GM parent⁸ As a result, under the current proposal, virtually none of the new GM products in the commercialisation pipeline will have to be labelled or undergo safety tests.

The importance of this arbitrary distinction cannot be underestimated and lies at the heart of several other forms of misleading argumentation in the Commission's proposal. **Lip service is paid to important rights and principles, while these will be violated by the proposal in actual fact.** For example, reference is made to the need to guarantee consumers' right to information (Article 38 of the Charter), while subsequently this right is only applied to Category 2 NGTs (i.e. the smallest group of new GMOs). The importance of the precautionary principle is stressed, while the same precautionary principle is completely removed for the largest group of Category 1 NGT. For this group, hardly any options are built in to check potential health or environmental effects before food is marketed or even afterwards to trace the cause of any harm if something goes wrong. A recent analysis prepared by 30 German legal experts shows that the proposal **violates the Lisbon Treaty and the Cartagena Protocol** exactly because it **does not respect the precautionary principle.**⁹

The proposal is also marked by tensions, or even contradictions, in other areas. For instance, it recognises that the use of GMOs is incompatible with the definition of organic farming, as defined both by the sector itself and in European legislation (Regulation (EC) 2018/848"). At the same time, the organic sector rightly notes that **remaining GMO-free in organic farming risks becoming impossible** in practice under the current proposal.¹⁰ Yet the Green Deal aims to significantly expand the share of organic farming in Europe.

⁶ EU Commission proposes to deregulate new GMOs in spectacular submission to the biotech industry. [Online publication](#) 05.07.23

⁷ Corporate Europe Observatory. Researchers with vested interests lobbying to undermine GMO safety rules. [Online publication](#) 28.09.22

⁸ Federal Agency for Nature Conservation (BfN) Where does the EU Commission's path lead to? Analysis of case studies. [Online publication](#). 07.09.23.

⁹ Legal Opinion. Commission proposal for a regulation on new genomic techniques (NGT): in violation of the precautionary principle [Online publication](#) 14.09.2023

¹⁰ IFOAM Resolution of the organic movement in favour of a system-based approach of innovation and sustainability – Keep Organic GMO-free. [Online publication](#). 21.06.2023

- **Safety and Precision**

The concept of safety is conspicuous by its absence in the proposal, even though it is the cornerstone of existing GMO legislation. Curiously, the issue of risk assessments is hardly addressed directly. The proposal merely states that the new GMO techniques are more precise and can produce GMOs that are barely distinguishable from conventionally obtained crops. The problem is that this too easily links different concepts: precision cannot simply be equated with safety. A precise shooter is not necessarily a safe shooter. It depends on what the shooter is aiming at. Moreover, in this case, the shooter's target is DNA, which is still largely uncharted territory. As the European Commission acknowledges, unintended changes are common with these new GMO techniques (both at the intended site of the intervention and elsewhere in the genome). These accidental changes differ in the location and frequency at which they occur from random changes made with random mutagenesis, which fall outside current GMO legislation.¹¹ Scientists from the European Network for Social and Environmental Justice ENSSER concluded, after analysing the existing scientific knowledge, that the current proposal does not take into account the unintended damage that new techniques such as CRISPR/Cas introduce into the genome.¹² However, the Commission brushed aside their concerns. At the same time, the proposal itself recognises that even within category 1 NGTs, major changes can happen that can significantly alter the structure and composition of the food and therefore its nutritional value or the amount of unwanted components. The novel food legislation will apply here, at least to the extent it concerns intended effects. For the current proposal, it is especially important that it shows that with a limited number of changes in DNA, significant changes to the food can still occur.

Besides greater precision, the main argument to cast aside safety concerns is that Category 1 NGTs could theoretically also occur via conventional breeding techniques or naturally, or at least this is what proponents claim. However, just because a plant has similar traits does not mean that the process by which these new organisms are produced would no longer matter. On the contrary, scientists have argued that process-induced unintended changes may present risks to health or the environment.¹³ To safeguard European consumers and the environment, proper screening for unintended effects is necessary. For this reason, existing European GMO legislation regulates the genetic modification processes itself. While that legislation has worked well for years, it is now in danger of being undermined in the space of a few months by the Commission's proposal. The questions that underpinned the drafting of European GMO legislation in the 1990s – such as the right of Member States not to authorise the cultivation of GMOs, long-term impact monitoring, and labelling for consumers – are as relevant as ever.

Moreover, again, a contradiction creeps into the proposal: on the one hand, these organisms are assumed to be equivalent to plants that could have arisen naturally or through conventional breeding techniques. On the other hand, these crops are considered so innovative and radically different that they can be patented by the developer. Both claims cannot be true. But one thing is certain: All new GMOs are patented (both the

¹¹ Testbiotech. Background. New genetic engineering: EU Commission proposal for new regulation endangers nature, the environment and our future livelihoods. [Online Publication](#) 31.08.2023

¹² Analysis statement by ENSSER (European Network of Scientists for Social and Environmental Responsibility) on the EU Commission's new GM proposal. Here for Annex 1 on NGT "equivalence criteria" [Online publication](#). 07.07.2023

¹³ <https://enveurope.springeropen.com/articles/10.1186/s12302-020-00361-2>; <https://www.mdpi.com/2673-6284/10/3/10>; <https://www.mdpi.com/2223-7747/10/11/2259/htm>

technologies and the products) and there is no reason to assume that this will change within the foreseeable future.

- **Sowing GMOs, reaping patents**

Patents are a crucial issue to be considered in the proposed deregulation of new GMOs. The ability to patent seeds may be even more important than the introduction of the new traits themselves. Indeed, conventionally grown seeds cannot be patented as easily. This is a thorn in the side of the seed industry. Genetically modified organisms may be the Trojan horse and open the door to possibly patenting all seeds in the future, not just genetically manipulated ones. A recent report by European environmental organisations shows that a search for the term “CRISPR-Cas plant” in international patent application databases yielded no less than 20,000 results.¹⁴ These are often broad patent applications covering all plants with a particular trait, regardless of how the plants are obtained – including via conventional breeding techniques.

It is sometimes argued that the deregulation of GMOs is necessary to also give smaller biotechnology companies and startups a chance. They would not be able to afford expensive safety tests, so the argument goes. Apart from the moral question of whether we should deregulate safety legislation to give smaller market players more economic leverage, this is also too simplistic as a representation. Multinational agrochemical companies typically buy the most promising startups to gain access to their patents. More importantly, this argument only considers small ‘biotech’ companies. Patenting seed threatens the very existence of a much larger group of independent breeding companies and farmers. For this reason they have been fighting patents on plant material for many years. A recent research report concluded that deregulation of a large number of new GMOs will make agriculture in Europe even more dependent on the big multinationals, exactly because of the existing intellectual property structures.¹⁵

- **Comprehensive liberalisation**

Here we seem to be getting close to what the proposal is mainly about: removing barriers to market forces for a Europe eager to be competitive in the world. This is also explicitly cited as one of the central objectives in the proposal. It is about creating a so-called unhindered playing field for the biotech industry, which prefers to operate free from time-intensive risk analyses and safety checks. But, is far-reaching liberalisation and deregulation, regardless of the effects on people and the environment, really what Europe wants to stand for? The proposal to follow the United States, China, the United Kingdom and Argentina in a logic of hyper-liberalisation reads as a remarkable weakness. The logic at stake goes beyond GMO deregulation per se. It is about who or what Europe wants to be: **an advocate of sound environmental, agricultural and health policies or a follower in a competitive race to the bottom?**

- **Climate and Sustainability**

¹⁴ Dolan et al. 2022. Report “Exposed. How biotech giants use patents and new GMOs to control the future of food”. GLOBAL 2000 – Friends of the Earth Austria, Friends of the Earth Europe, Corporate Europe Observatory (CEO), Arche Noah, IG Saatgut – Interessengemeinschaft für gentechnikfreie Saatgutarbeit and Arbeiterkammer Wien

¹⁵ Ely, Adrian, Patrick van Zwanenberg, Elise Wach and Dominic Glover, 2023. The possible deregulation of certain GMOs in the EU: What would the implications be? A pathways analysis. Brussels, BE: The Greens/EFA group in the European Parliament. [Online Publication](#) 03.07.2023

Of course, many commentators will claim that the deregulation proposal is not just about innovation and competitiveness, but also about climate goals, pesticide reduction, and sustainability. However, it is exactly this invocation of sustainability goals to weaken the GMO legislation that worries us most. Using climate and sustainability goals to achieve deregulation and commercialisation of new GMOs feels like an ill chosen joke. Definitely because fundamental pillars of every sound sustainability policy, such as the precautionary principle and proper international regulation, are removed at the same time. The German Federal Environmental Protection Agency study, which we cited earlier, shows that about 30% of NGT applications in plants target consumers (such as allegedly blood pressure-lowering tomatoes). 20% targets industrial efficiency. Only a small number of the investigated NGT plant applications would potentially play a role regarding sustainability, and even for those applications it is far from given that they can actually make a difference. In essence, these applications ignore that the sustainability of an agricultural and food system mainly depends on the whole-system level of interactions between plants, humans and the environment, and to a much lesser extent on the genetics of a particular crop.¹⁶ Drought resistance and disease and pest resistance can be achieved much more efficiently and sustainably by changing the entire farming system according to agroecological principles.¹⁷

We conclude that sustainability goals are being opportunistically used to win over citizens and politicians, thereby serving the economic interests of the biotech industry, in a form of greenwashing. It is remarkable that the European Commission makes this possible just as certain companies are having to withdraw their sustainability claims (from climate neutrality to the contribution to carbon offsetting) from their advertising, because they cannot substantiate the claims with facts.¹⁸ Similarly, the sustainability promises around new GMOs are unlikely to live up to the claims. But this may be of little concern to the biotech industry: by the time this becomes clear, it may be too late to reverse deregulation.

The stakes should not be underestimated. Once genetically manipulated organisms are released into our environments and food systems, they cannot simply be taken out again in the event that environmental or health problems appear. It might even become impossible to simply identify or trace the origins of environmental and health problems. This is of great concern in a society in which health and environmental problems are increasingly the result of complex, interacting and often largely invisible causes. This is obviously not of concern to the agro-chemical industry as it allows them to escape responsibility. This brings us to our last point: when seeds and genetic material falls even further into the hands of agribusiness, it will become ever more more difficult for governments and farmers to guarantee robust, sustainable and fair food systems.

In this sense, this is an irreversible decision. We therefore urge you to express your strong reservations **and reject the Commission's proposal.**

We look forward to your response.

¹⁶ De Schutter, O. 2010. "Agroecology and the Right to Food". Report submitted to Human Rights Council by the Special Rapporteur on the right to food, Olivier De Schutter. [Publication Online](#)

¹⁷ Altieri, Miguel A., Clara I. Nicholls, Alejandro Henao, and Marcos A. Lana. "Agroecology and the design of climate change-resilient farming systems." *Agronomy for sustainable development* 35, no. 3 (2015): 869-890.

¹⁸ <https://www.ft.com/content/53f84f03-1f1c-4240-977f-9de0e4893377>
<https://www.theguardian.com/environment/2023/sep/19/do-carbon-credit-reduce-emissions-greenhouse-gases>

FIRST SIGNATORIES (alphabetically)

1. Adrien Tofighi-Niaki, Senior Climate Researcher, Institute of Environmental Science & Technology, Autonomous University Barcelona (ES)
2. Alberto Bernués, PhD, Director of Research, Agrifood and Technology Centre of Aragón (ES)
3. Alberto Matarán Ruiz, PhD in Environmental Sciences, Professor, in the Department of Urban and Spatial Planning, University of Granada (ES)
4. Alice Dal Gobbo, PhD, Assistant Professor at the Department of Sociology and Social Research, University of Trento (IT)
5. Andrea Beste, PhD, Institute for Soil Conservation & Sustainable Agriculture (GE)
6. Andreas Fangmeier, PhD, Professor Emeritus at the Institute for Landscape and Plant Ecology, University of Hohenheim (GE)
7. Andy Stirling, PhD, Professor of Science and Technology Policy, Science Policy Research Unit, University of Sussex (UK)
8. Angelika Hilbeck, PhD, Researcher, Department of Environmental Systems Science, ETH Zurich (CH)
9. Anneleen Kenis, PhD, Lecturer Political Ecology & Environmental Justice, Brunel University London (UK); Senior Research Fellow (FWO) at the Department of Earth and Environmental Sciences, KU Leuven and the Centre for Sustainable Development, Ghent University (BE)
10. Ariel Shalleh, PhD, Distinguished Visiting Scholar in the Centre on Labour, Sustainability and Global Production, Queen Mary University of London (UK); Visiting Professor, Faculty of Humanities, Nelson Mandela University (ZA)
11. Arnim Scheidel, PhD, Institute of Environmental Science and Technology (ICTA-UAB), Autonomous University of Barcelona (ES)
12. Arturo Escobar, PhD, Professor of Anthropology, University of North Carolina, Chapel Hill (US)
13. Barbara Van Dyck, PhD, Associate Professor at the Centre for Agroecology, Water and Resilience, Coventry University (UK)
14. Brian Wynne, PhD, Professor Emeritus and former Research Director of the Centre for the Study of Environmental Change, Lancaster University (UK)
15. Carolina Yacamán, PhD, Professor in the Department of Geography, Universidad Autónoma de Madrid (ES)
16. Clelia Sirami, PhD, Director of Research in Landscape Ecology, French National Institute for Agriculture, Food, and Environment (INRAE) (FR)
17. Cyril Dutech, PhD, Research Fellow in Evolutionary Biology, French National Institute for Agriculture, Food, and Environment (INRAE); UMR BIOGECO, Bordeaux (FR)
18. Daniel López García, PhD in Agroecology, Institute of Economics, Geography and Demography, Spanish National Research Council (ES)
19. Danielle Wilde, PhD, Professor Sustainability Transitions University of Southern Denmark (DK)
20. Edith Lammerts van Bueren, PhD, Professor Emeritus in Organic Plantbreeding, Wageningen University (NL)
21. Eduardo Aguilera, PhD, Postdoctoral Researcher, Universidad Politécnica de Madrid (ES)
22. Elisa Oteros-Rozas, PhD in Ecology, Postdoctoral Researcher, University of Seville (ES)
23. Elisabeth Bücking, PhD, ECOROPA (GE)
24. Esteve Corbera, PhD, ICREA Research Professor, Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona (ES)
25. Eva Gelinsky, PhD, Independent scientist (CH)
26. Eve Fouilleux, PhD, Senior Research Director at the French National Institute for Scientific Research, CNRS (FR)
27. Fabienne Barataud, PhD, Research engineer, French National Institute for Agriculture, Food, and Environment (INRAE) (FR)
28. Federico Demaria, PhD, Professor in Ecological Economics, University of Barcelona (ES)
29. Frieder Otto Wolf, Ex-MEP, Professor of Philosophy, Freie Universität Berlin (GE)

30. Georgina McAllister, PhD, Assistant Professor in Stabilisation Agriculture, Centre for Agroecology, Water and Resilience, Coventry University (UK)
31. Gill H. Boehringer, Honorary Professor, Macquarie University Law School (AU)
32. Giuseppe Longo, PhD, Professor and Research Director at CNRS (Emeritus) at the Cavallès interdisciplinary centre of École Normale Supérieure (ENS), Paris (FR)
33. Gloria Isabel Guzmán Casado, PhD, Professor at the Department of Geography, History and Philosophy, Universidad Pablo de Olavide (ES)
34. Inge Konik, PhD, Senior lecturer at the Department of Philosophy, Nelson Mandela University (ZA)
35. Isabel Goldringer, PhD, Senior Scientist, Institut Diversité, Ecologie et Evolution du Vivant (FR)
36. Isabel Ruiz Mallén, PhD, Associate Professor at the Universitat Oberta de Catalunya (ES)
37. Jacques Testart, PhD, Honorary Senior Scientist at the National Institute for Research in Health, Inserm (FR)
38. Jérôme Enjalbert, PhD, Senior Scientist in Diversity Management for Agroecology, French National Institute for Agriculture, Food, and Environment (INRAE) (FR)
39. Joost Dessein, PhD, Associate Professor, Department of Agricultural Economics, Ghent University (BE)
40. José Luis Yela, PhD, Associate Professor of Zoology and Conservation Biology, Faculty of Environmental Sciences and Biochemistry, University of Castilla-La Mancha, Toledo (ES)
41. Judy Carman, PhD, Director of the Institute of Health and Environmental Research (AU)
42. Julia Wright, PhD, Associate Professor in Agroecological Futures, Centre for Agroecology Water and Resilience, Coventry University (UK)
43. Julie Hermesse, PhD, Professor in Environmental Anthropology, UCLouvain (BE)
44. Katja Tielbörger, PhD, Professor at the Plant Ecology Research Group, University of Tübingen (GE)
45. Kees Zoeteman, PhD, Professor Emeritus in Sustainability Policy, Tilburg University (NL)
46. Leticia Santos de Lima, PhD, Institute of Environmental Sciences and Technologies (ICTA), Universitat Autònoma de Barcelona (ES)
47. Luigi Pellizzoni, PhD, Full Professor in Sociology of the Environment and Territory at the Department of Political Sciences, Scuola Normale Superiore, Florence (IT)
48. Maarten Loopmans, PhD, Professor in Human Geography and Political Ecology, Department of Earth and Environmental Sciences, KU Leuven (BE)
49. Marco Fama, PhD, Research Fellow in Economic Sociology, University of Bergamo (IT)
50. Marjolein Visser, PhD, Professor in Agrarian Systems and Agroecology, Agroecology Lab, Université libre de Bruxelles (BE)
51. Marta Soler Montiel, PhD, Full professor, Department of Applied Economics, Universidad de Sevilla (ES)
52. Maud Bernard-Verdier, PhD, Evolutionary and Integrative Ecology, Freie Universität Berlin (GE)
53. Michael Antoniou, PhD, Professor of Molecular Genetics and Toxicology, King's College London (UK)
54. Michel Pimbert, PhD, Professor at the Centre for Agroecology, Water and Resilience; Director of the Institute for Sustainability, Equity and Resilience at Coventry University (UK)
55. Moritz Hunsmann, PhD, Research Fellow, French National Institute for Scientific Research (CNRS) (FR)
56. Myriam Dumortier, PhD, Professor at the Faculty of Bioscience Engineering Ghent University and Senior Researcher at INBO (Research Institute for Nature and Forest), (BE)
57. Nina Isabella Moeller, PhD, Associate Professor at the Department of Sociology, Environmental and Business Economics, University of Southern Denmark (DK)
58. Patrick Mulvany, Honorary Research Fellow, Centre for Agroecology, Water and Resilience, Coventry University (UK)
59. Paul C. Struik, PhD, Professor Emeritus in Crop Physiology, Wageningen University & Research (NL)
60. Petra Benyei, PhD, Instituto de Economía, Geografía y Demografía, Spanish National Research Council CSIC (ES)
61. Pierre Stassart, PhD, Professor in Environmental Sociology, Liège University (BE)
62. Pierre-Henri Gouyon, PhD, Professeur émérite, Muséum National d'Histoire Naturelle (FR)
63. Raquel Ajates, PhD, Research Fellow working on open source seeds and food policy, Universidad Nacional de Educación a Distancia (ES)

64. Saurabh Arora, PhD, Senior Lecturer in Technology and Innovation for Development, University of Sussex (UK)
65. Sebastien Barot, PhD, Director of Research at IRD (Institut de Recherche pour le Développement), and at IEES- Paris (Institut d'Ecologie et des Sciences de l'Environnement-Paris (FR)
66. Thierry Lescot, PhD, Agronomist – Researcher, CIRAD (FR)
67. Tina Heger, PhD, Researcher, Restoration Ecology, Technical University of Munich (GE)
68. Ulrich Schmutz, PhD, Professor for Organic Horticulture and Ecological Economics, Coventry University (UK)
69. Vishwas Satgar, PhD, Associate Professor in International Relations, University of the Witwatersrand (ZA)
70. Volaire Florence, PhD, Centre d'Ecologie Fonctionnelle et Evolutive, French National Institute for Agriculture, Food, and Environment (INRAE) (FR)
71. Wouter Van Hove, PhD in Bio-engineering Sciences, expert in sustainable breeding systems and publicist on GMOs, agriculture and food systems (BE)
72. Yuti Chernajovsky, PhD, Professor Emeritus of Molecular Medicine, Queen Mary, University of London (UK)