Veille citoyenne d'information sur les OGM et les semences

More words, always words…

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For several years, *Inf'OGM* has been working to monitor and decipher the words used by multinationals and legislators in discussions about GMOs, industrial property or the digitisation of living organisms. The choice of words is by no means insignificant, and naming a subject, a tool or elements of nature contributes to a good understanding of the issues at stake... or to maintaining confusion!


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In this new series of articles, *Inf'OGM* addresses the case of several terms deliberately used by manufacturers, the European Commission and certain legislators for strategic purposes. For example, we will look at the confusion between tools (*e.g.* Crispr), techniques (*e.g.* mutagenesis) and methods (*e.g.* technical protocols for genetic modification), the issue of precision, targeting and control of genetic modification techniques, and the equivalence of plants. These articles complement the cases already discussed in the past, which we summarise in this first article.

The artificialisation of nature in order to appropriate it

In early 2021, as debate began to emerge over the legal status of digital sequence information (genome or proteome sequences stored on computers), *Inf'OGM* addressed the semantic issue of "*genetic resources*"[i].

This expression, used originally in 1967 at the International Conference on Crop Plant Exploration and Conservation, organised by the FAO, was taken up at the Earth Summit in Rio in 1992 by the Convention on Biological Diversity (CBD). This international convention establishes that a '*genetic resource*' is '*genetic material of actual or potential value*', also linking it to non-physical intangible components such as traditional knowledge. In 2014, the Nagoya Protocol differed slightly from this definition by referring to '*the genetic and/or biochemical composition of genetic resources*'. But the term '*resources*' itself is at the heart of a utilitarian view of nature. As Annick Bossu and Christophe Noisette explained in their article published by *Inf'OGM*, this term places '*living organisms in an extractivist industrial vision [...] as a material goods*'. When the adjective '*genetic*' is added, it encompasses all living things, plants, animals and micro-organisms, reducing them to genetic sequences alone. Similarly, the patent directive refers to 'biological material'.

Due to the improvements in the storage conditions for physical resources and the ability to sequence genetic sequences quickly and cheaply, then store them in computers, the doors to the appropriation of living organisms (*via* patents) are opening a little wider. Indeed, dematerialising organisms by recording certain sequences of their genome, certain proteins, etc. in computer databases makes these sequences accessible to companies, which aim to make a market out of them. Even if they do not find what they are looking for, algorithm factories will find ways to respond to the expectations of manufacturers. As a symbol of the importance of words, for these companies, '*genetic resources*' recorded in a computer cannot be described as '*physical*'. According to European and North American industries and governments, they have no connection with biological samples. They should therefore not be subject to the protection of biological diversity, established in particular by the CBD, even though the patents that these companies apply for on the basis of digitised sequences apply to the living organisms that make up that biological diversity...

'*Microorganism*', a term used to enable patents on organisms

In July 2023, the European Commission announced that it would propose a regulation concerning GMO plants obtained using new techniques of genetic modification. In this wording, the term '*plants*' was then interpreted unambiguously, with the clarification that this text would not apply to micro-organisms and animals. In September 2025, however, *Inf'OGM* reported that some micro-organisms were indeed covered by this proposal, explaining that the legal concept of the term '*micro-organism*' varies from one text to another, to the extent that it can even refer to complete organisms that are not '*micro*' at all[ii].

As a starting point for semantic monitoring, in 1990 the European legislator defined a microorganism as '*any microbiological entity, cellular or non-cellular, capable of replication or of transferring genetic material*'. This definition was adopted as part of the directive regulating the use of genetically modified microorganisms. In another context, that of patents, it was in 1995 that the European Patent Office (EPO) decided that this term also applied to isolated plant and animal cells, even though they are incapable of reproducing and transferring genetic material on their own, without the array of chemicals used in laboratories. However, for the EPO, '*the term '*micro-organism*' includes bacteria and other generally unicellular organisms with dimensions beneath the limits of vision which can be propagated and manipulated in a laboratory, including plasmids and viruses and unicellular fungi (including yeasts), algae, protozoa and, moreover, human, animal and plant cells*'. This list of examples of micro-organisms according to the EPO, which is broader than the one found in European legislation, allows multinationals to extend the scope of patents to any complete organism that has been obtained from plant or animal cells isolated in the first stage.

However, it is an international text from 1977 that offers the broadest, if not absurd, definition of what a microorganism is. The Budapest Treaty, signed by 91 states, regulates the deposit of microorganisms as samples within international depositary authorities. In its annex listing the '*microorganisms*' that can be deposited as samples, this treaty lists bacteria, viruses, protozoa... but also DNA, RNA, plasmids (*i.e.* molecules that by definition are not alive), embryos, nematodes (worms), and even seeds.

Paradoxically, multinationals may defend the opposite position when their interests require it. For example, within the Cartagena Protocol, which regulates the transboundary movement of GMOs, some companies argue that they want "*to exclude from the scope [of the Cartagena Protocol] certain products derived from modern biotechnologies, such as RNAi pesticides, vaccines, viruses… because they are not themselves living organisms, even though they are disseminated with the aim of modifying the genome or epi-genome of living organisms*", according to Guy Kastler in an analysis published by *Inf'OGM*[iii]. Legally considering certain products to be micro-organisms in order to obtain patents, while at the same time claiming that they are not organisms in order to avoid the obligations of GMO regulation... A real art in itself…

The legal definition of a GMO at the heart of political negotiations

Since December 2024, European Union Member States have been debating the semantics of the very definition of a GMO, which has been legally established since 1990[iv]. This work clearly reflects that the interpretation of words, taken together or separately, is of great importance when it comes to legal texts, as they define what the law applies to.

On the initiative of the Netherlands, a discussion has therefore begun on several words in the definition of a GMO provided by Directives 2001/18 (GMOs) and 2009/41 (GM microorganisms), namely '*an organism [or microorganism], with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination*'. Which words are Member States raising questions about in terms of interpretation? According to the Netherlands, several words need to be discussed in order to align the approaches taken when implementing the definition of a GMO.

Thus, the expression '*has been modified*' could be interpreted in two different ways. For some Member States, all descendants of a GMO would also be GMOs, while for others, the descendants could be considered non-GMOs. The expression '*in a way that does not occur naturally*' is also debated. Some States interpret it as referring to the technique, while others consider that it refers only to the genetic modification obtained. In the latter case, this would be a significant reversal in

the application of European legislation on GMOs, which has always been implemented taking into account both the genetic modifications obtained and the way in which they have been obtained.

One final expression deserves attention, namely '*with the exception of human beings*'. According to the Netherlands, some Member States consider that human cells and tissues can be regarded as GMOs if genetically modified, because these human cells, like human tissues, are not '*human beings*' in the strict sense of the term! Such an interpretation would open the door to genetic modifications, initially on human tissues. And then...

The examples of semantics we have just seen already illustrate that the interpretation of words is still of great importance in the strategy aimed at appropriating living organisms while avoiding as many regulatory frameworks as possible, even if it means arguing everything and its opposite depending on the forum for discussion. In future articles, we will see how semantics continues to be a tool for circumventing existing frameworks and, in the case of GMOs, even deregulating them.

i Annick Bossu and Christophe Noisette, « « *Ressource génétique* » : une mauvaise expression », *Inf'OGM, le journal*, n°162, January/March 2021.

ii Denis Meshaka and Eric Meunier, « "Microorganism": uncertainty in wording as a legislative strategy? », *Inf'OGM*, 10 October 2025.

iii *Ibid.*

iv Eric Meunier, « The European Union discusses its definition of a GMO », *Inf'OGM*, 16 April 2025.

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