

Viewpoint: Will Europe botch regulation of gene editing as it has GMOs?

Hans Christian Andersen's celebrated tale has served as an admirable metaphor for deception since its publication in 1837. It tells the tale of an Emperor who unknowingly parades naked before his subjects in a new suit of imaginary clothes sold to him by two swindlers. The truth is only revealed after a small child cries out, "But he has nothing on." The recent EU high-level conference on "Modern Biotechnologies in Agriculture – Paving the way for responsible innovation", highlighted that 180 years on from Andersen's classic tale, deception remains rampant.

EU Commissioner for Health and Food Safety, Vytenis Andriukaitis called the meeting to discuss whether new breeding techniques (NBTs) should be classified as conventional, and accordingly be left out from those regulations that are in force for genetically modified (GM) plants. We are talking about recently developed methods that enable controlled and precise gene-editing and have been already used to give plants desired properties, similarly to those encountered throughout evolution.

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There is a major difference between NBTs and GM methods. Many of these techniques do not introduce foreign DNA and often the resulting organisms have just a single nucleotide change to their DNA sequence: something that readily happens every time a DNA strand is naturally replicated.

New gene editing technologies are already revolutionizing every field in life sciences, from plant breeding to human medicine. Obviously, these technologies will be effectively used in plant breeding and benefit in finding ways to boost nutritious plant growth while helping to minimize pesticide use, thus perfectly assisting organic farming objectives.

But instead of discussing the conference's agenda, roughly 300 respected experts gathered and spent an entire day discussing unproven risks and the need for labelling organisms where NBTs are applied.

One of the priorities of the Estonian Presidency of the European Union is the development of an open and innovative economy. And I was proud to listen to the welcome speech given by Estonia's rural affairs minister Tarmo Tamm, where he clearly stated that in addition to conventional breeding, the EU needs research-based solutions that have the potential to speed up breeding in a sustainable manner.

It would not be wise nor would it keep anyone more safe if these new technologies are brushed off as 'dangerous' without any real consideration.

Nevertheless, we spent the day in Brussels discussing scientifically unproven myths and legends concerning GM plants and NBTs. "There is no monopoly for being green", Andriukaitis said to a Greenpeace representative at the meeting. I fully agree, I am 'green' as well, whenever possible I eat local unprocessed food, I am a hobby shepherd, and I am convinced that biodiversity is something we should

be concerned about, as it's vital to mankind's sustainable development.

However, concerning the campaign against NBTs there is no doubt that this is one of the biggest public lies currently circulating and I simply do not understand how it is possible that despite all the facts 300 experts gathered in Brussels and no one dared to say that the Emperor was actually naked.

We should consider whether we want Europe to become a History Theme Park show-casing a "Museum of Agriculture" or whether we should aim to increase Europe's competitiveness and be part of the next green revolution, possibly triggered by new innovative plant breeding techniques that will be a key component of sustainable development.

The EU and its institutions are perhaps the best possible platform that can be used to achieve this.

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