

## **Genome editing: Germany's Bioeconomy Council calls for new EU legislation**

**Germany and EU should help to shape bio-innovations**

On 25 July 2018, the European Court of Justice clearly ruled that new products created by using CRISPR and similar techniques must go through the time-consuming approval process prescribed under EU genetic engineering legislation. However, regardless of this, genome editing technologies are developing rapidly on an international level. The German Bioeconomy Council proposes a more differentiated assessment of the technologies and calls upon policy-makers to modernise genetic engineering legislation. Otherwise, Germany would remain out in the cold in this "biological revolution" and would have no say in shaping the necessary international regulations.

The German Bioeconomy Council is convinced that genome editing will catalyse important innovations in the bioeconomy. Prof. Christine Lang, Co-Chair of the Bioeconomy Council observes a breakthrough of these technologies in science and commerce: "Throughout the world, we are already seeing the development of new medicines, climate-compatible and resilient crops, health-promoting foodstuffs and environmentally friendly production methods using CRISPR and the like."

Her Co-Chair on the Council, Prof. Joachim von Braun, adds: "The bioeconomy can and must make a significant contribution to the Sustainable Development Goals. Germany supports measures to improve global nutrition and to foster equality of opportunity, climate protection and nature conservation. Its contribution to these goals will primarily lie in innovations, which can also be used internationally."

However, the solution cannot be to give blanket approval to the new technologies. In its position statement, the Council also refers to the risks of excessively rapid or uncontrolled proliferation of such technologies. "In its current form, EU genetic engineering legislation cannot do justice to the opportunities and challenges of the technologies. We need an amendment to bring it in line with advances in the field. It is important to have a regulation that distinguishes between mutations and gene transfers and provides for risk-oriented approval and release procedures," says Prof. Christine Lang, summing up the requirements.

**The new Council recommendations suggest guidelines for amending the legislation plus specific accompanying measures:**

- Legislation that is more suited to the many different applications of the new technologies, from simple mutations right through to complex genome editing, and their different risk assessments; for example, graduated licensing and approval procedures for different classes of risk.
- Official registration and monitoring of Good Practice in commercial and academic applications of genome editing technologies.
- In view of international trade and global supply chains, mandatory product labelling is not sensible, since modifications cannot always be scientifically or technically detected or proven. In order to promote consumer information and transparency, the infrastructure for voluntary certification (e.g. "GMO-free") should be strengthened.
- Public research funding must be increased for applications of high social relevance.
- Similarly, it is necessary to fund accompanying research, especially into the potential impacts upon biodiversity and also social and economic developments (e.g. ethics, patenting).
- It is necessary to develop new forms of dialogue for a constructive social debate.
- International exchange and collaboration must be intensified, in order to guarantee greater transparency and regulatory harmonisation.

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**About the Bioeconomy Council of the Federal German Government:**

The Bioeconomy Council advises the Federal German Government on the implementation of the National Research Strategy Bioeconomy 2030 towards a biobased economy. It is the Council's aim to establish a cross-sectoral knowledge-based bioeconomy. It generates sustainably created products and services, thus combining economic growth with the objective of environmental compatibility. The Federal Ministry of Education and Research (BMBF) and the Federal Ministry of Food and Agriculture (BMEL) established the Bioeconomy Council as an independent advisory board to the Federal Government in 2009. The two co-chairs, Prof. Dr. Christine Lang and Prof. Dr. Joachim von Braun, lead the Council. The central task of the 17 members of the council, whose expertise covers a wide spectrum of the bioeconomy, is to search for ways and means towards sustainable solutions and to present their findings in a global context. The Council encourages an open dialogue with the general public. It also provides recommendations on how education and training as well as research and development can best be promoted. The Council's activities are aligned with both long-term objectives and current political requirements.

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