

A framework for a good review practice of existing evidence of potential impacts of genetically modified plants

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The European regulatory framework for the market authorization of genetically modified plants (GMP) and products derived thereof demands a comprehensive risk assessment (RA). Even though a lot of safety research has been conducted on GMPs, it is very difficult for stakeholders, risk assessors and the general public to fully overview existing outcomes which are hence not entirely considered in decision-making.

The EU-funded research project GRACE (GMO Risk Assessment and Communication of Evidence) identifies the need to impartially compile existing evidence of potential impacts, including risks and benefits, caused by the deliberate release of GMPs on human and animal health, the environment and socio-economy. Evidence synthesis will be based on the outcomes of national, EU and international research activities.

Systematic evidence synthesis approaches are already established in other research fields to support evidence-based decision-making. They represent powerful tools to collect,

evaluate and summarize accessible research results in order to address a specific scientific issue in a transparent, reproducible and unbiased manner. Thus, their adaption to and implementation in the impact assessment process for GMOs and products derived thereof aims to increase the transparency and support the updating of science-based decision-making processes.

GRACE aims to identify and to integrate the most appropriate evidence synthesis approaches in a unified framework for the impact assessment of GMPs by drawing on and adapting existing concepts and general guidelines.

A set of research questions referring to health, environmental and socio-economic impacts will be reviewed by GRACE and stakeholders will be actively involved. Review teams and stakeholders are supported in preparing and using reviews through an open-access database that mirrors the entire evidence synthesis process. The database will be permanently established beyond the lifetime of the GRACE project.