Genetically modified crops are on the market since 1994. Since the beginning of the 1990ies many dossiers for the market authorization of GM crops have been reviewed. In Europe more than 30 different GM crops are authorized for import and processing into food and feed and three crops have an authorization for cultivation. In the United States even much more crops have been deregulated.

All of the dossiers contain detailed information on the composition of these GM crops when compared with their conventional non-GM counterpart. Additionally there are many data available from toxicological and feeding studies. In many cases certain significant differences can be seen, especially in the composition of crops. But in almost all cases these fall within the ranges known from conventional varieties and have no biological relevance. Data from the so-called stacked events that are the result of conventional crosses between single events, show that significant differences in composition in a single event, may disappear when the single event is mixed with a different genetic background. Additionally data stemming from omics studies point to the fact that genetic background, soil and climate, and farming practices are much more important in determining the composition of a crop, than genetic modification is.

What do all these data actually tell us? Do these data tell us that breeding as such, whether conventional or through GM, may alter the composition of a crop? Does it tell us that GM does not alter the composition of a crop in any other way than plain breeding does? That is, other than introducing an additional protein in cases where this is the intention, such as in a herbicide tolerant crop or an insect resistant crop?

And what is it that we conclude from this experience? Can we simplify the risk assessment for certain GM crops? I think we can. Certainly for certain stacked events for which in Europe the authorities still require full regulatory dossiers. But perhaps also for modification of crops through for instance cisgenesis there may be good reasons not to require too much.

In this paper concrete examples and overviews of data will be given from regulatory dossiers and published scientific studies about different GM crops. It will raise the questions given above and more, and will try to justify why for certain types of GM crops regulatory simplification should no longer be a taboo.

Keywords: risk assessment, experience, regulatory simplification