



Fact sheet: The impact of the EU Commissions' legal interpretation of the Dir. 2001/18/EC on EU breeding companies

Seeds are at the origin of all our food. Without R&D investment in plant breeding technologies, many of the foods we consume today would not even exist or they would at least not be that healthy or tasty. In the last century plant breeding has gone through several technological evolutions and New Breeding Techniques (NBTs) are the next step in this continuum. Today, the European plant breeding sector is threatened by a lack of regulatory clarity on the correct interpretation of Directive 2001/18/EC. Until legal clarity is reached, the commercial application of these innovative solutions is hampered.

The EU plant-breeding sector

In 2012, the value of the EU seed market reached around € 7 billion¹. The EU market represents 20% of the global market. It ranks n°3 after the United States (27%) and China (22%), well ahead of the fourth market (Brazil, 6%).

In this context, a group of five Member States (France, Germany, Italy, Spain and the Netherlands) represents two thirds of the EU market. EU seed companies are highly diversified, according to their size (turnover, number of employees), crops portfolio, geographical area covered and activities carried out.

Small and Medium-Sized Enterprises (SMEs) represent a high share of the EU seed sector. The largest numbers of SMEs are found in three Member States: Poland, Romania and Hungary.

Approximately 4800 companies are located in these three Member States and more than 90% of these companies are SMEs².

Impact of the EU regulatory framework on breeding companies

The European plant breeding industry is a world leader in terms of innovation. Of the more than 7000 companies in the EU, a significant portion are SMEs, which are widely recognised as a major driver of innovation and economic growth due to their ability to turn research and knowledge into new commercial products.

Member States	N. of seed companies ³
Poland, Romania	Around 2000
Hungary	Around 800
United Kingdom	Around 600
France, Italy, Germany, Netherlands, Slovakia	Between 120 and 350
Other Member States	Less than 60

Source: Elaboration by EP PolDep B, based on data from the European Commission Impact Assessment [SWD\(2013\)162](#), 2013.

Seed companies employ around 50,000 people in Europe (80% in the above mentioned Member States). The countries with the highest number of people employed are France, Romania, the

² DG Internal Policies (2013) 'The EU seed and plant reproductive material market in perspective: A focus on companies and market shares' link [here](#).

³ All activities, including plant breeding, production and marketing.

¹ Source: Data from the [European Seed Association](#).





Netherlands, Poland, Germany and Italy (in decreasing order).

Many of these companies depend on NBTs to remain competitive in the future. When NBTs fall under the scope of the Directive 2001/18/EC; many SMEs will not be able to withstand the competition of companies outside the EU. This would ultimately result in the abandon and the relocation of their activities, with important implications on jobs, R&D and economic growth in Europe.

The France seed sector in numbers

- 73 breeding companies
- 244 production companies
- 19,000 seed producers (farmers)
- 23,000 retail outlets (Coops, agri-supermarkets, trading...)
- 9000 employees
- 3,2Md€ in revenues of which 1,75Md€ for internal market
- Export trade balance 841M€
- 15% of turnover invested in R&D

Source: Coop de France - FNSEA - GNIS JA - UFS⁴

Impact on R&D

Plant breeding companies are highly research intensive and spend between 10 to 25 percent of their turnover on R&D (Louwaars, 2009). Furthermore, the European plant breeding sector accounts for nearly 50 percent of all global research on NBTs (Lusser et al. 2012). With an average R&D investment level of 10% per year, the

⁴ Nouvelles Techniques d'Amélioration des Plantes (2015) - Contribution Coop de France - FNSEA - GNIS - JA - UFS auprès du Comité Economique Ethique et Social du Haut Conseil aux Biotechnologies. Link [here](#).

total R&D investment value is estimated at around €700 million per year. A loss of 30% of the R&D in the EU would mean a loss in investment in high level equipment and jobs amounting to €210 million.

The unfair competition in the breeding sector

Both the EU Commission's Joint Research Centre⁵ and the European Food Safety Authority⁶ concluded that in most cases the products obtained through the use of NBTs cannot be distinguished from conventionally bred crops and detection is not possible. This creates an advantage for foreign companies which export to Europe.

European plant breeders should operate in a favourable legal environment that allows the development and commercialization of products using NBTs, without weakening the competitiveness of the small and medium plant breeding companies.

If NBTs will fall under the scope of the Dir. 2001/18/EC, the costs and tools required to develop and market new products will constitute an unfair barrier to smaller companies.

About the NBT Platform

The NBT Platform is a coalition of SMEs, industry and members of prominent academic and research institutes. Its aim is to provide policy makers and stakeholders with clear and precise information on NBTs and to generate awareness about their benefits for the European economy and society as a whole.

More information on www.nbtplatform.org, or contact us via info@nbtplatform.org.

⁵ JRC (2011) New plant breeding techniques State-of-the-art and prospects for commercial development.

⁶ EFSA (2012) Scientific opinion addressing the safety assessment of plants developed through cisgenesis and intragenesis. EFSA (2012) Scientific opinion addressing the safety assessment of plants developed using Zinc Finger Nuclease 3 and other Site-Directed Nucleases with similar function

