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Swings and roundabouts: French public policy on agricultural GMOs since 1996

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Abstract

Until 1996 French public policy on the use of genetically modified organisms (GMOs) in agriculture and food was broadly supportive, and there was essentially no public debate in France on this topic. But in the winter of 1996-1997, seemingly out of nowhere, a controversy emerged in the media and the wider public sphere. This was sparked off by the arrival of the first imports of transgenic soya and maize from the USA, and further inflamed by a series of contradictory governmental decisions taken with respect to the commercialisation of a specific transgenic maize, the pest-resistant Bt176. In response, government policy began to change in order to introduce a more precautionary approach to environmental and health risks and more transparent and participative decision-making procedures. But the controversy did not abate and by the end of 1998 public policy on GMOs was in disarray. In June 1999, demonstrating a complete reversal of its 1996 position, the French government called for (and in effect obtained) a moratorium at the level of the European Union (EU) on any further authorisations for the commercialisation of GMOs. Thus, whereas France was, in June 1996, one of the EU Member States with the most supportive policy toward the introduction of GM crops and food onto the market, by June 1999 the situation was entirely reversed and France was one of the most obstructive EU Member States. This reversal in public policy with regard to GMOs was influenced by the increasingly visible public controversy about GMOs in France. Ironically, however, this controversy was itself sparked off and fuelled, in large part, by a succession of measures taken by state authorities which were perceived to be incoherent and even contradictory. This facilitated the actions of anti-GMO movements and forced key actors in the agrofood industry to pre-empt the government by establishing their own cautious line with regard to GM food products.

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1. Introduction

Until June 1996 France was, within the European Union (EU), the Member State with the most supportive policy toward the introduction of GM crops and food onto the market. By June 1999, the situation was entirely reversed and France was one of the most obstructive EU Member States. This is exemplified by the fact that at a European Council of Ministers on 25 June 1996 France was the only government to support the application by the ag-biotech firm Novartis for the authorisation to commercialise a pest-resistant genetically modified maize (Bt176). But at the meeting of this same Council on 25 June 1999, the French government called for (and in effect obtained) a moratorium at the level of the European Union (EU) on any further authorisations for the commercialisation of GMOs. The fact that the political orientation of the French government changed in 1998 does not provide a sufficient explanation for this reversal in policy. Both the Juppé (centre-right) and the Jospin (left-green) governments took, at different times, decisions which implied either high or low levels of support for the commercialisation of agricultural GMOs. We therefore need to look in more detail at the way in which the French GMO debate evolved, especially in the period 1997-1999. Key events are summarised in Box 1.

Until 1996 there was essentially no public debate in France about the use of genetically modified organisms (GMOs) in agriculture or food, and French public policy was broadly supportive of the development these products. The media showed very little interest in the topic, there were no significant campaigns by French non-governmental organisations (NGOs) representing environmental or consumer interests, no debate in agricultural circles,

and no visible controversy among scientists about the risks associated with GMOs. In the period 1996-1998, all of this changed. At the end of 1996, seemingly out of nowhere, a controversy about GMOs emerged in the media and in the wider public sphere. New and diverse actors became involved, including not only environmental and consumer NGOs, but also farmers, food retailers, and scientists. The national regulatory system, which had functioned smoothly for the previous ten years, fell apart. Government policy on agricultural GMOs began to change in response to demands for a more precautionary approach to environmental and health risks and for more transparent and participative decision-making procedures. But the controversy did not abate and by the end of 1998 public policy on GMOs was in disarray and transgenic crops had become a focal point for broader controversies about science, technology, and environmental risks in France. The government eventually reacted by adopting a relatively hard line - in comparison to other EU Member States and even more so in the face of pressure from the USA - against the continued introduction of GMOs on the market and into the environment. I will argue in this paper that this reversal in policy was a reaction to an increasingly visible controversy on GMOs in France but that, ironically, this controversy was in large part sparked off and fuelled by a series of contradictory decisions taken by public authorities.

Box 1: Key events related to French public policy on GMOs	
November 1994	Ciba-Geigy (which later fused with Sandoz to create Novartis) submits application for commercialisation of Bt176 to French Competent Authority (Ministry of Agriculture).
March 1995	Following a favourable assessment by its scientific advisory committee (CGB), the French government transmits the application to the Commission of European Communities (CEC). Seven Member States raise objections. Protracted procedures follow during the following 12 months, including referral to 3 European level scientific committees, but these fail to resolve the conflict between Member States.
3 April 1996	CEC authorises for the first time the importation of a GM crop (Monsanto's GM Round-up Ready soya).
25 June 1996	Unmitigated support: at meeting of European Council of Environmental Ministers, France is the only Member State to support the application by Novartis for the commercialisation Bt176.
November 1996	First imports of GM soya from the United States into the European Union, accompanied by the launch of a European-wide anti-GMO campaign by Greenpeace.
18 December 1996	European Commission announces decision to authorise the commercialisation of Bt176 (formalised on 23 January 1997).
4 February 1997	French government issues legislation to authorise commercialisation of Bt176.
12 February 1997	1st U-turn, Juppé Decision: French government decides not to authorise the cultivation of GM hybrids derived from Bt176 in France.
Feb.-March 1997	Austria, Luxembourg and Italy invoke the "safeguard clause" of Directive 90/220 (Article 16) to ban the commercialisation of Bt176 maize in their territories.
May 1997	Change of government following French parliamentary elections.
27 November 1997	2nd U-turn, Jospin Decision: French government announces decision to authorise the cultivation of Bt176 maize hybrids in France (formalised on 5 February 1997).
5 February 1998	French government authorises cultivation of 3 hybrids derived from Bt176.
20-22 June 1998	Citizens' Conference on the use of GMOs in food and agriculture.
30 July 1998	Mitigated support - and partial moratorium: French government decides to authorise the commercial release of two new lines of GM maize (Agrevo's T25 and Monsanto's Mon810), and the cultivation of 12 GM hybrids (derived from Bt176 and Mon810). But announces moratorium for GM oilseed rape and sugar beet.
25 September 1998	3rd U-turn, Supreme Court ruling against the government: <i>Conseil d'Etat</i> suspends the authorisation for cultivation of Bt176 maize issued on 5 February 1998.
16 November 1998	French government invokes Article 16 of Directive 90/220 to ban the commercialisation of 2 GM oilseed rape varieties in France (application of moratorium)
11 December 1998	<i>Conseil d'Etat</i> confirms suspension of the authorisation for cultivation of Bt176 maize and refers the case to the European Court of Justice.
25 June 1999	De facto European moratorium: at the European Council of Ministers, French delegation signs (with Italy, Greece, Denmark and Luxembourg) a declaration to suspend new authorisations for the commercialisation of GMOs.
21 March 2000	European Court of Justice responds to the <i>Conseil d'Etat</i> .
22 November 2000	4th U-turn, Supreme Court ruling in favour of government: following the ruling of the European Court of Justice, the <i>Conseil d'Etat</i> validates the authorisation for cultivation of Bt176 maize issued on 5 February 1998.

2. Pre-1997: unmitigated support

To start with, it is important to emphasise that France was, until 1997, the EU Member State favoured by applicants for both experimental and commercial releases¹ of GMOs into the environment. By 1996, 386 experimental releases of GMOs had taken place in France, accounting for over 30% of all releases in the EU. Similarly, out of the first 15 EU applications for commercial release of GMOs, 9 were deposited in France (Khan, 1996). This reflected the fact that government policy was seen to be broadly in favour of the use of GMOs in agriculture and food. Potential conflicts seemed to have been resolved through the construction of an apparently effective "science-based" regulatory system (Gotweiss, 1998; Roy, 2000; Roy and Joly, 2000).

Box 2 **Novartis Bt176 Maize: the product**

Bt176 is a genetically modified maize in which the following genes have been introduced:

- A Bt-toxin gene (two copies) that confers resistance to several insect pests, and in particular to the European corn borer.
- A gene which confers resistance to a herbicide (glufosinate ammonium or Basta, produced by Novartis). This characteristic is not part of the commercial interest of the GM maize in Europe since glufosinate is not currently authorised for use on maize crops in the EU.
- A gene for resistance to the antibiotic ampicillin. This selective marker gene serves no function in the plant product: it was a tool used by scientists in the laboratory during the elaboration of the GM maize.

In 1994, Novartis² submitted an application for the commercial release of a genetically modified insect-resistant maize called Bt176, described in Box 2. This was the first European application for the full commercial release of a major crop. Following the favourable advice of their scientific advisory committee (the *Comité de Génie Biomoléculaire*, CGB), the French authorities supported the application. In accordance with the procedure laid out in Part C of Directive 90/220³, the French government therefore forwarded the application to the

¹ The term "commercial release" of GMOs is used throughout this paper as a shortcut to refer to the process of "placing on the European market of products containing GMOs", as defined in Part C of Directive 90/220.

² The application was actually submitted by Ciba-Geigy, which fused with Sandoz in 1996 to become Novartis. In December 1999, Novartis and AstraZeneca announced the spin off and merger of Novartis Crop Protection and Seeds businesses and Zeneca Agrochemicals to create a new ag-biotech firm, Syngenta, which is now responsible for the commercialisation of Bt176 and other Novartis GM maize lines.

³ Council Directive 90/220 on the deliberate release into the environment of genetically modified organisms. *Official Journal of European Communities*, L117, 8 May 1990, p. 15-27.

Commission of European Communities (CEC) in March 1995. Seven Member States raised objections to this proposal. This led to lengthy protracted negotiations between the European Commission and the European Council, including referral to the "Article 21 Committee" and re-submission of the case to three EU-level expert committees. But these failed to resolve the conflict. As already mentioned, France was, in the end, the only Member State to vote in favour of the proposal at a European Council meeting on 26 June 1996.

At this point, following the rules laid out in Directive 90/220, the European Commission was entitled to impose its proposal to authorise the commercialisation of Bt176, because the European Council had not rejected it unanimously, and this was indeed the route taken by the Commission. Thus, despite the explicit opposition of 13 out of 15 Member States (one abstained), the Commission decided, in December 1996, to authorise the commercialisation of this GM maize⁴. A key factor was the commercial and political pressure on this issue: in December 1996 ships containing GM maize from the USA were already waiting to unload their cargoes in European ports. The European Parliament later claimed that minutes from the European Commission meeting of 18 December revealed "in a worrying manner, that economic and commercial pressures were given precedence over considerations of public health and the protection of the environment"⁵.

Once the European Commission had given its approval, France, as the original notifier for the proposal, was expected to ratify this decision into national law (but see section 7). The Agriculture Minister duly signed the consent for the commercialisation on 4 February 1997⁶. Under Directive 90/220, this automatically meant that the commercial release (i.e. import, sale and consumption) of this GM maize was authorised throughout the EU (but see box 4). However, cultivation of GMOs can be subject to additional national seed registration legislation⁷. This is the case in France: in order to be allowed to cultivate GM maize in France, each hybrid derived from Bt176 still had to be registered by the Ministry of

⁴ The decision was announced in December 1996 and formalised on 23 January 1997 (Commission Decision 97/98/CE).

⁵ European Parliament resolution of genetically modified maize (R4-3035/97) voted on 8.4.97 (407 for, 2 against, 19 abstentions).

⁶ *Arrêté du 4 février 1997 portant autorisation de mise sur le marché de lignées de maïs (Zea mays L.) génétiquement modifiées protégées contre la pyrale et présentant une tolérance accrue aux herbicides de la famille du glufosinate-ammonium.*

⁷ As this case study shows, seed registration has become an additional regulatory hurdle for placing on the market of transgenic crops. For an EU-wide discussion of this issue see Levidow and Carr (2000) and the final report of the EU-funded research project "Safety regulation of transgenic crops: completing the internal market?", co-ordinated by David Wield at the Open University, UK, available at www-tec.open.ac.uk/cts/bpg.htm.

Agriculture in the Official Catalogue of Varieties. Novartis had indeed submitted 3 such hybrids for registration in the Catalogue, and this should have been a banal administrative follow-up procedure to the market consent for Bt176 signed on 4 February.

3. First U-turn: Juppé Decision

Yet, to the great surprise of everybody concerned, Prime Minister Alain Juppé announced, on 12 February 1997, that the government would not authorise the cultivation of the Novartis maize in France: in other words, the three hybrid varieties of maize derived from Bt176 would not be added to the Official Catalogue of Varieties. No official reason was ever given for this decision. It is generally accepted that Prime Minister Alain Juppé was influenced by the then Minister for the Environment, Corinne Lepage, and that this decision was taken at the last minute, when the appropriate decree had already been drafted and was about to be signed by the Minister of Agriculture. Lepage had been strongly opposed to the commercialisation of this GM maize, but had until then been a lone voice in government. In February 1997, having consulted a number of experts, including the few who were expressing doubts about the safety of this GM maize, she wrote a letter to Prime Minister Juppé emphasising the environmental risks associated with GM crops (Lepage, 1998a, p.48-51; Lepage 1998b).

An important contextual element was the arrival of the first GM food imports into the European Union during the autumn and winter of 1996/97, which were accompanied by the launch of a pan-European anti-GMO campaign by Greenpeace. In France, activists blockaded cargo ships and warehouses containing GM soya and maize at French harbours. Greenpeace argued that transgenic crops were covertly entering Europe and our food without the informed consent of consumers, since the imported seeds were not labelled and would be used in the production of 60% of transformed food products. This argument was facilitated by the fact that EU-level regulations about the labelling of GM food products had not yet been issued, and that even when they were finally adopted in January 1997⁸, they were considered to be not comprehensive enough by consumer and environmental NGOs. Furthermore, the food production and distribution industries also argued that the regulations were insufficiently clear and too difficult to implement.

⁸ The CEC Novel Food Regulation (258/97), which requires labelling of some GM-derived foods, was adopted on 27 January 1997 and came into force on 15 May 1997. This meant that it did not apply to the GM soya and maize lines authorised before that date - and these represented the majority of GM food derivatives on the market during 1997-1998. This legislative gap was later filled in by CEC Regulation 1139/98 of 26 May 1998.

This line of argument resonated well with consumer NGOs, who began to put pressure on food producers and distributors. The controversy had been launched, and the issue was taken up by the mainstream national press. Furthermore, Europe was still in the aftermath of the BSE crisis sparked off in March 1996 by the UK Minister for Health announcement that BSE may well have transferred to humans. The national daily *Libération* published a front page article with the headline "Beware of mad soya!" (01/11/96). From then on, the parallel between GMO and BSE was established.

Scientists, industry representatives and government officials often deplore this amalgam, claiming that it is a result of inaccurate and alarmist media reporting. According to them "there is no link between GMOs and BSE", and some even exclaim that prions contain no DNA! In this way, they fail to see that the link between these two issues is not, in the mind of ordinary citizens or the media, a biological issue, but a social one. Focus group research with members of the public in France and in other European countries has shown that the BSE affair is referred to systematically as a typical case-study which exemplifies the public experience of such risk issues, and that they used this experience as a frame of reference to make sense of the emerging GMO controversy. Key aspects of this public interpretation of the BSE affair were (i) that it is impossible to anticipate all harmful consequences of a new activity or product, especially in the long term; (ii) that in a context of uncertainty, economic interests override health and safety considerations; (iii) that even when evidence about harmful effects begins to accumulate, preventative action is delayed and even bypassed by illicit activity. Furthermore, focus group participants expressed the feeling that both BSE and GMOs represent important changes in the agrofood production system which were hidden from consumers; and that both are associated with an intensive and industrial model which seeks increased productivity at all costs, to the detriment of other qualitative values which they increasingly cherish. (For further details of this research on public perceptions of agricultural GMOs in Europe, see Joly et al. 2000; and Pabe, 2001).

The Juppé Decision meant that the commercial release (i.e. import, sales and consumption) of GM maize Bt176 was authorised throughout the European Union, including France, but that cultivation was prohibited in France (other Member States were free to pass - or not - national legislation to authorise cultivation on their territories). This position was criticised from all sides as being totally incoherent (environmental and consumer NGOs, farmers unions, other

professional agricultural institutions, and biotechnology companies). For Novartis, after all the hurdles they had overcome to get this far, "it was as if the sky had fallen on our heads"⁹.

This decision was the one event which most catalysed the ensuing controversy on GM crops. It marks the transition in the public policy on GMOs for food and agriculture in France, from the pre-1996 period, to the post-1996 period. Reinforcing this change of context, Axel Kahn, who had been chair the *Comité du Génie Biomoléculaire* (CGB) since 1986, resigned in protest at the government's decision the very next day (13 February). This expert committee, which is responsible for advising the government on the risks associated with the environmental release of GMO, had actively supported the application throughout the procedure. Khan's departure signalled the beginning of a range of changes in the national GMO regulatory system.

4. Second U-turn: Jospin Decision

Prime Minister Alain Juppé and his centre-right party (RPR) lost the parliamentary elections of May 1998. The socialists, in alliance with the Communist and Green parties, won and Lionel Jospin became Prime Minister. He appointed Dominique Voynet, leader of the Green Party, as Minister for the Environment. In line with the French constitution, Jacques Chirac (RPR) remained President even though his party no longer held power in Parliament, a situation known as "cohabitation" in France.

On 27 November 1997 - emphasising the incoherence of the previous government's decision - the new left-green government announced that would authorise the cultivation of the Novartis maize. Note that a right-wing government banned the (cultivation of the) GM maize, and a left-wing government authorised it; and that this was despite the fact that the Green party, a member of the new coalition in government, had explicitly expressed its anti-GMO position during the electoral campaign.

This decision was formalised on 5 February 1998 when three hybrid varieties of GM maize derived from the Bt176 line were added to the Official Catalogue of Varieties¹⁰. In order to

⁹ Interview with senior manager at Novartis, 5 February 1999.

¹⁰ *Arrêté du 5 février 1998 portant modification du Catalogue officiel des espèces et variétés de plantes cultivées en France (semences de maïs).*

demonstrate government consensus and openness on the issue, a press conference was held with the Prime Minister and all four relevant Ministers (Agriculture, Environment, Health and Research). Public participation in decision making, transparency, and the precautionary principle were key concepts emphasised throughout the press releases¹¹. The cultivation of the Bt176 maize varieties would be authorised, but GM crops other than maize would not be accepted (notably not oilseed rape and beet). Permission to grow GM maize was to be temporary, for only three years, and a procedure would be set up to monitor the health and environmental impacts of the commercial cultivation of GM maize in France. This is referred to as "*biovigilance*" in French. At the same time, the government announced a number of measures aimed to improve transparency for the public:

- (i) The government would launch a broad public debate on GMOs (via a Consensus Conference).
- (ii) The participation of environmental and consumer NGOs in the CGB would be strengthened.
- (iii) GM food products would be clearly labelled.

5. Public debate and consultation

Following the declaration of 27 November 1997, the government was criticised for organising a public debate after taking the key policy decision about the Novartis maize. Critics included not only NGOs, but also industry and social science researchers involved in analyses of public participation in technology assessment (Assouline, 1998). It was therefore important that the government be seen to be waiting for the outcome of the organised public debate before taking any further decisions. Between November 1997 and July 1998, government policy on GMOs was therefore on hold, despite significant pressure from the USA.

This created the context for an important opening out period: different policy options seemed possible and all the major stakeholders mobilised and established their positions more explicitly. New actors also emerged in the public debate, both for and against the use of GMOs. These actors expressed themselves through the media, through NGO-led direct actions (destruction of GM fields; removal of products suspected of containing GM ingredients from supermarket shelves...), and also through three parliamentary initiatives

¹¹ Press releases of 27/11/97 from Ministry of Agriculture and Prime Minister's Office.

undertaken by the *Office Parlementaire d'Evaluation des Choix Scientifiques et Technologiques* (OPECST¹²):

- (i) Private hearings of over 200 experts held in 1997-1998
- (ii) Public Hearings of experts held in May 1998 (Le Déaut, 1998a)
- (iii) Citizens' Conference held in June 1998

The Citizens' Conference was organised following the model of Danish Consensus Conferences (Joss and Durant, 1995). A group of 15 ordinary citizens were selected and given two weekends of information about GMOs. The citizens' panel then elaborated a set of questions and a selection of experts they wanted to consult. A third weekend constituted the conference itself, when the panel asked their questions directly to the experts, in front of an invited audience (composed essentially of media and interested parties). After 2 days of debate, the panel retired for 24 hours to produce a report with their conclusions and recommendations. Contrary to expectations, the citizens' report¹³ did not adopt a general position for or against the use of GMOs in agriculture and food. Indeed, although this seemed to have been feared (or hoped for) by different actors, such a result is not typical of consensus conferences. A relatively large number have now been held around the world (Marris and Joly, 1999), and the result is generally, just as in France, a considered analysis of the conditions under which citizens feel the technology should be developed and controlled in order to maximise the potential societal benefits and minimise potential harmful impacts. The French panel requested, in particular:

- "Clear, reliable and accountable" labelling policy, including the separation and traceability of GM and non-GM products throughout the food chain.
- The participation of representatives of society in the regulatory system.
- New laws to ensure liability and responsibility in case of harm detected in the future.
- Greater investment in public sector research on the ecological risks associated with GMOs.
- Greater state funding of public research in general in order to "guarantee its independence with regard to private sector research and the influence of multinationals".
- More specifically, the panel requested that antibiotic marker genes, such as the one present in the Bt176 maize, should be not be used for the construction of GM plants.

¹² The OPECST is the French Parliamentary Office for Technology Assessment.

¹³ Available at <http://www.senat.fr/opecst>. For a more detailed analysis of this French Citizens' Conference, see Joly et al. (2000) and Marris and Joly (1999).

- The report also stated that "until these conditions are satisfied, part of the panel believes that a moratorium would be advisable".

Jean-Yves Le Déaut, socialist deputy and President of the OPECST, led all three initiatives and published his recommendations in July 1998 (Le Déaut, 1998b). Overall, he was enthusiastic about the economic and social benefits which could be derived from agricultural biotechnologies, and worried that France and Europe more generally might "fall behind" other nations - in particular the USA and Japan - with respect to technological advances in this field. His position was that the use of GMOs should be authorised, but that measures should be taken to improve risk evaluation procedures and information for the consumer. In this respect, he broadly supported most of the recommendations of the citizens' panel (except the one about the antibiotic marker gene).

6. Mitigated support and partial French moratorium

On 30 July 1998, the government "on the basis of these [OPECST] initiatives", announced its position, which was essentially the same as in November 1997. Government policy would be based on three key principles "strict application of the precautionary principle; a necessary vigilance for the large-scale use of GMOs; and increased transparency for consumers and citizens"¹⁴. Specific decisions or engagements were as follows.

- 1) Some GM crops were considered to be more acceptable than others, mostly based on an assessment of their propensity to transfer genes to surrounding wild plants. On this basis, GM maize would be authorised but not GM oilseed rape or sugar beet. Thus:
 - (i) The government announced that the commercialisation of two new lines of GM maize (T25 and Mon810) would be authorised. This was done on 3rd August¹⁵. On the same day the government also authorised the cultivation of 12 new GM hybrid varieties, 6 derived from Mon810 and 6 from Bt176¹⁶.

¹⁴ Press Release from the Prime Minister's office dated 30/07/98.

¹⁵ *Arrêté du 3 août 1998 portant consentement écrit, au titre de l'article 13, paragraphe 4, de la directive 90/220/CEE du 23 avril 1990, des décisions 98/293/CE et 98/294/CE du 22 avril 1998 concernant la mise sur le marché de maïs génétiquement modifiés (Zea mays L. T25 et Mon 810)*

¹⁶ *Arrêté du 3 août 1998 portant modification du Catalogue officiel des espèces et variétés de plantes cultivées en France (semences de maïs)*

- (ii) The government announced its intention to apply a two-year moratorium on the commercialisation and the cultivation of all GM plants, "such as oilseed rape, which present a risk of crossing with other species". Two strategies have been utilised to implement this moratorium. Firstly, France has refused to ratify European Commission authorisations that had originally been notified by France (this involves breaking the rules set out by Directive 90/220 and the European Commission has complained to France about this). Secondly, in November, France invoked the "safeguard clause" (Article 16, see Box 3) of Directive 90/220 to ban from its territory 2 lines of GM oilseed rape which had received EU-level authorisations¹⁷.
 - (iii) GM plants containing antibiotic resistant genes would be considered on a case-by-case basis. The risk was considered to be minor, especially compared to the increase in antibiotic resistance caused by the use of antibiotics in human and veterinary medicine, and in animal feed.
- 2) Measures would be taken to ensure "transparent and pertinent" information for consumers. This included a commitment to the labelling of GM food products and to setting up a national system for the traceability of GM plants.
- 3) Biovigilance would be reinforced, and the risk evaluation procedures for GMOs would be reformed in order to increase transparency.

7. Third U-turn: the Supreme Court intervenes

In February 1998, Greenpeace had lodged an appeal to the *Conseil d'Etat* (the highest administrative court in France) against the authorisation to cultivate the Novartis Bt176 hybrids (issued by the Ministry of Agriculture on 5th February 1998 following the Jospin Decision). Two other environmental NGOs (Ecoropa and Friends of the Earth), a left-wing farmers union (the *Confédération Paysanne*) and three individual citizens later lodged similar appeals. These appeals argued that the authorisation was illegal on the basis that the risks had not been properly evaluated, that the correct administrative procedures had not been followed and that, overall, the precautionary principle had not been adhered to.

¹⁷ Arrêté du 16 novembre 1998 portant suspension de la mise sur le marché de colza génétiquement modifié au titre de l'article 16 de la directive 90/220/CCE du 23 avril 1990, suite à la décision no 96/158/CE du 6 février 1996.

On 25 September 1998, the *Conseil d'Etat* decided to support the appeals and suspended the authorisation. On 11 December 1998, the *Conseil d'Etat* confirmed its decision and referred the case to the European Court of Justice, asking for clarification about the relative powers of national and EU authorities. In particular, the *Conseil d'Etat* asked whether, according to Directive 90/220 (and in particular Article 13.4¹⁸), the French government would have been entitled not to authorise the commercialisation of the GM maize, given that it was the Member State which originally sent the proposal to the European Commission with a favourable opinion (and therefore whether France is entitled to revoke that authorisation).

This decision was considered very significant in legal and environmental policy circles, especially because the *Conseil d'Etat* explicitly accepted the argument that the precautionary principle had apparently not been sufficiently applied. This decision was clearly controversial: the *Conseil d'Etat* went against the recommendations of its own rapporteur on the case, the *Commissaire du Gouvernement* Jacques-Henri Stahl who strongly supported the Novartis case and argued that the appeal should be rejected. The decision was commented on in several legal revues¹⁹ and in major newspapers²⁰. The *Conseil d'Etat* even took the unusual step of issuing a press release (on 11th December) to outline its decision.

The *Conseil d'Etat* deferred its final decision on the appeals until it received an answer from the European Court of Justice, which was expected to take about two years (see Box 3). In the meantime, the government authorisation for the cultivation of the 3 GM maize hybrids derived from Bt176 (issued on 05/02/98) remained suspended. On the other hand, the import, sale and consumption of Bt176 maize was not affected and was still authorised. The commercialisation of the 2 other maize lines authorised on 3 August 1998 (T25 and Mon810) were also still authorised in France, as was the cultivation of the 12 GM maize hybrids (derived from Bt176 and Mon810) authorised on the same day. But in the autumn of 1998 the same environmental organisations submitted appeals against these authorisations also.

¹⁸ Article 13.4 of Directive 90/220 states that: "Where the Commission has taken a favourable decision, the competent authority that received the original notifications shall give consent in writing to the notification so that the product may be placed on the market and shall inform the other Member States and the Commission thereof."

¹⁹ See Malafosse (1998), Remond-Gouilloud (1999). The specialised economic daily *Les Echos* also published commentaries by lawyers: by Thieffry on 29/10/98, and Pitoun et Razfindratandra on 19/03/99.

²⁰ See *Le Monde*, 13-14 December, p.8 and 13 (see also 20-21 and 27-28 September). Note that on 20th September *Le Monde* wrongly predicted that the *Conseil d'Etat* would not accept the appeal.

Not surprisingly, given this uncertain legislative context, very few French farmers decided to grow any of these GM maize varieties for the 1999 season. In 1998, approximately 1600 hectares of GM maize hybrids derived from Bt176 had been cultivated in France, and about 20 000 tonnes were harvested. This was very much less than Novartis had hoped and planned for. Farmers, and their co-operatives, were wary of deciding to buy these seeds during the spring of 1998, at the height of the public debate and policy uncertainty about GMOs. In September 1998 the decision by the *Conseil d'Etat* made it illegal to buy seeds and therefore to sow the crop, but not to sell the product of this first harvest. Nobody quite knows what happened to this harvested maize. The government claimed to have stored it pending further decisions, but some of it probably entered the food chain (for animal feed and starch production). Cultivation of 12 other GM maize hybrids were authorised in August 1998, but only a minute quantity of these varieties, 74 hectares, was grown in 1999. For 2000 the estimates were even lower. The *Conseil d'Etat* decision had no bearing on other EU member states, but Spain is the only country where significant commercial quantities of GM maize were grown, at least in 1998 and 1999.

Box 3: Postscript on *Conseil d'Etat* decision

The European Court of Justice issued its ruling on 21 March 2000 (Case C-6/99, available at www.curia.eu.int), stating that: "The Court decides that Member States which have forwarded a dossier to the Commission with a favourable opinion for placing a GMO on the market are bound by their opinion and must apply the Commission's decisions. However, new information indicating that a GMO constitutes a risk for human health and the environment allows that procedure for placing a GMO on the market to be stopped pending a fresh Commission decision [by invoking Article 16 of Directive 90/220]". Thus, the Court rules that the French government had no choice but to implement the CEC's decision - unless it could argue that it had received or become aware of new information since forwarding the dossier to the Commission.

On 22 November 2000, the *Conseil d'Etat* announced that, given the ruling of the European Court, it would validate the authorisation for the cultivation of Bt176 issued by the government in February 1998, thereby rejecting the appeals of the NGOs. This decision was highlighted by the media and anti-GMO NGOs as being contradictory to the wishes of the public and a responsible application of the precautionary principle. Since the announcement came at the peak of a renewed French crisis surrounding BSE, links were again made between the two affairs: "The *Conseil d'Etat* legalises the madness of GMOs" (press release by the *Confédération Paysanne*, 22/11/00). Novartis (now Syngenta) was keen to point out that in practice this new ruling made no difference, since the company had no plans to sell any GM maize seeds in France for the time being, given that farmers were not prepared to grow them: "We have decided to concentrate on trying to create the conditions for a serene public debate on GMOs" (radio interview with Syngenta manager, 22/11/00).

8. Final nail in the coffin? Council of Ministers June 1999

At a European Council of Ministers on 24-25 June 1999, the French government called for an EU level suspension of all further authorisations for the commercial release of GMOs. This position was promoted by the Environment Minister Dominique Voynet, whose position within the governmental coalition had been reinforced by the results of the elections for the European Parliament on 13 June, when her Green Party obtained 10% of the votes. In the end, only four countries fully supported the French position, but this was sufficient to create a de facto moratorium. And in any case 7 other countries signed a separate declaration which also urges for caution with regard to the commercialisation of GMOs. This means that, largely due to the strength of the position adopted by France, no more authorisations for the commercial release of GM crops and foods would be issued in the EU for the time being. The European Commission was still free to over-rule the European Council, as it had in December 1996 with regard to the authorisation for Bt176, but this has not happened.

9. Other evolutions in French GMO policy

The discussion so far has focused exclusively on French government policy with regard to the commercial release of GM products and the cultivation of GM crops. Other elements of policy toward the management and evaluation of risks associated with GMOs need to be emphasised: policy on labelling and a move towards broader participation in decision making on risks.

9.1 Policy on labelling

The French government has demonstrated increasingly strong support for legislation to ensure comprehensive labelling of GM food and feed, largely in opposition to the dominant trend within the EU. It is interesting to note that French public policy makers have considered that labelling can be entirely compatible with a positive policy towards the introduction of GM foods on the market, even though the biotechnology and agrofood industries (and the US authorities) regard strict requirements for labelling of GM foods as an anti-GMO position. The French governmental position on labelling is exemplified by the following points:

- (i) The government insisted on passing two decrees in February 1997²¹ to require labelling of food and feed derived from GMOs before it would authorise the commercial release of Bt176²².
- (ii) The emphasis on traceability and labelling in government declarations of 27 November 1997 and 30th July 1998. This element was indeed strengthened between these dates, possibly reflecting the fact that strong explicit demands emanated from the Citizens' Panel on these issues, and from the wider public debate in France during 1998.
- (iii) The lack of effective labelling and traceability rules for GMOs and GMO-derived products was the main argument used by the French government to impose a de-facto moratorium on all new commercial authorisations of GMOs at the European Council of Ministers on 24-25 June 1999.
- (iv) On 29 March 1999 Prime Minister Jospin asked the Secretary of State for consumer affairs to look into the issue of labelling and traceability, organise a "dialogue with consumers", and come up with propositions for government action²³. She decided to implement this mandate by asking three consumer NGOs to organise a series of 60 public debates throughout France, in order to collect the views of the public and feed them back to government²⁴. The role given to these NGOs in itself exemplifies the search for new procedures to incorporate citizens into decision making, as discussed below.

9.2 Towards broader participation in decision making on risks

There are signs that a very different general philosophy, compared to that which had dominated from 1986 to 1996, began to emerge with regard to decision-making on risk issues. This includes a broader definition of the risks that need to be addressed, an acknowledgement that these need to be assessed by a wider range of scientific disciplines and a greater commitment to incorporating societal views in the evaluation of agricultural biotechnologies. These changes are exemplified by:

²¹ *Avis aux opérateurs économiques de la filière alimentaire (NOR : FCEC9700029V)* and *Avis aux opérateurs économiques de la filière de l'alimentation animale (NOR : FCEC9700030V)*, *Avis Divers* in *Journal Officiel*, 2 February 1997, p.1833.

²² See footnote 8.

²³ See *Allocution de M. Lionel Jospin, Premier ministre, en clôture du Colloque Biovision* and Press Release from Prime Minister's office entitled "*Organismes génétiquement modifiés*", both dated 29/03/99.

²⁴ See <http://www.finances.gouv.fr/ogm>.

- (i) The heterogeneous composition of the *Comité de Biovigilance* created in February 1998: 50% of the members are non-scientists; and members include anti-GMO groups such as Greenpeace, the *Confédération Paysanne*, and a consumer organisation. The remit of this committee is to monitor the environmental and health impacts of the commercial release of GMOs²⁵. Given the mixed composition of this committee, the definition of these impacts has been broadened, including for example the impact on neighbouring farms which wish to remain GMO-free.
- (ii) The organisation of the Citizens' Conference on GMOs in June 1998.
- (iii) The public debates on GMOs mandated by the Secretary of State for consumer affairs (mentioned above).
- (iv) The new composition of the CGB established on 7 July 1998, which included, for the first time: scientists with expertise in toxicology, pests, population genetics; and scientists who had expressed views against the environmental release of GMOs; and a more active NGO representative.

More radical reform of the CGB has also been proposed. The Citizen Panel recommended that a new advisory commission should be established within the CGB, which would be composed of non-scientific representatives of society. This idea was taken up by Le Déaut in his recommendations (Le Déaut, 1998a:95), and also in a report commissioned by the Prime Minister on the precautionary principle (Kourilsky and Viney, 2000). It has won support in policy circles, but the issue of how to articulate such lay judgements with expert judgements has been the source of controversy. So far no measures have been taken to establish such a Commission.

10. International factors

In order to keep the picture simple, EU-level decisions and decisions by other EU Member States have not been discussed so far, even though they have of course influenced impacts French government policy. Relevant EU-level developments include:

- (i) The ban on Bt176 established by Austria and Luxembourg since March 1997 (see box 4).
- (ii) Delayed, unclear and ineffective labelling legislation at the EU level (see footnote 8).

²⁵ Since there has been next to no commercial release of GM crops in France, the work of this committee has necessarily been very limited.

- (iii) Strict labelling legislation established independently by Member States (e.g. Germany in 1998).
- (iv) The ongoing process of revising Directive 90/220 which regulates the deliberate release of GMOs into the environment.
- (v) The adoption of the controversial European Patent Directive in July 1998.

Box 4: Austria invokes Article 16 to ban Bt176

In February and March 1997 Austria, Luxembourg and Italy invoked Article 16 of Directive 90/220 to ban Bt176 GM maize from their territories (import, sale, consumption and cultivation). Italy later withdrew its decision but the ban still holds today in Austria and Luxembourg, despite the fact that, according to Article 16, the issue should have been resolved within three months.

Article 16 of Directive 90/220 states that: (1) "Where a Member State has justifiable reasons to consider that a product which has been properly notified and has received written consent under this Directive constitutes a risk to human health or the environment, it may provisionally restrict or prohibit the use and/or sale of that product on its territory. It shall immediately inform the Commission and the other Member States of such action and give reasons for its decision."; (2) "A decision shall be taken on the matter within three months in accordance with the procedure laid down in Article 21."

Wider international factors have also been important, in particular: battles between the EU and the USA with regard to the importation of bananas and hormone-treated beef (and the role of the WTO in these disputes) and negotiations for the Protocol on Biosafety of the Convention on Biological Diversity. In each case, conflicting positions between the European Union and the United States were brought to the fore.

11. Conclusions: inconsistency in public policy fuels the debate

I would argue that the swings and roundabouts in French public policy on GMOs described in this paper have been a major factor in the French debate. Thus, the reversal in French public policy was influenced by the increasingly visible public controversy about GMOs but, ironically, this controversy was itself sparked off and fuelled, in large part, by a succession of measures taken by state authorities which were perceived to be incoherent and even contradictory. The initial decision not to authorise the cultivation of Bt176 sparked off the controversy. Then, each succeeding U-turn brought new fuel to the debate. Bt176 has been at the heart of this dynamic, but the delayed, incomplete and unclear European legislation with regard to labelling also played an important role.

The fact that the initial decision and the successive measures taken by public authorities were perceived to be incoherent and contradictory encouraged the development of a variety of arguments and positions from all the concerned actors. It also facilitated the actions and arguments of anti-GMO social movements and forced key actors in the agrofood industry to establish their own cautious line with regard to GM food products. Disagreements between different sections of government (especially between the environment and agriculture ministries) were also highlighted, and shown to be deeper than distinctions between the two governments which succeeded each other during this period. Faced with such uncertainty in public policy, private sector actors chose to determine their own independent policy, in effect pre-empting public policy. The first to react were large-scale food distributors - especially those which sell their own brands (e.g. Carrefour) - who chose, as early as 1998, to exclude GM ingredients from their products²⁶. We have also seen that by 1999 ag-biotech firms had chosen not to market GM maize seeds in France despite the fact that some had been authorised.

One thing which added to the perception of incoherence was the fact that the involvement of extra-governmental state authorities such as the OPECST and the *Conseil d'Etat*, were often not recognised as being independent from the executive. Thus, although the *Conseil d'Etat*

²⁶ For an in depth discussion of the mobilisation of non-governmental actors in the French GMO debate, including environmental groups, consumer groups, farmer representatives, public research institutions and the agrofood industry, see Joly et al. 2000.

decision of September 1998 was a ruling against a measure taken by the executive, this was not necessarily understood by the actors in the debate - and even less by members of the general public. This was revealed in our focus groups: participants frequently expressed the view that the government itself had first authorised and then banned the Bt maize. Some focus group participants also pointed out the incoherence of the decision to authorise the import and sale of GM maize, while at the same time prohibiting its cultivation. Overall, the picture which emerged was that governmental decision-makers did not have a clearly thought out policy and view about the potential health and environmental impacts, and this was a source of concern.

EU policy seems to have been influenced by the new French position, and has since June 1999 followed a far more cautious line with regard to GMOs than it had previously. By the end of 1999, public policy on GMOs in the EU was extremely confused, but broadly represented a slow-down in the commercialisation of GMOs used in agriculture and food. The established regulatory regime had failed to operate smoothly and a number of Member States were demanding that a different approach be adopted, which would be more precautionary, would give more choice to consumers and would encourage more participation in decision-making by citizens. This new EU policy line was supported in international negotiations at the WTO meeting in Seattle in December 1999 and at the Biosafety Protocol meeting in Montreal in January 2000. These developments are likely to have far-ranging commercial, scientific and political impacts within Europe, and also with regard to relations between the EU and the USA, where most GM crops are currently cultivated.

12. References

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