

Contract No: 6914

## **GMO-COMPASS**

**GMO Communication and Safety Evaluation Platform**

Specific Support Action



**Sixth Framework Programme  
Priority 5: FOOD QUALITY AND SAFETY**

## **Final Activity Report**

Period covered: from **01/2005** to **02/2007**

Date of preparation: **20/03/2008**

Start date of project: 01 January 2005

Duration: 26 months

Project coordinator: Kristina Sinemus

Project coordinator organisation: Genius GmbH

## Consortium members

Partic. Role	Partic. No.	Participant name	Participant short name	Country	Date enter project	Date exit project
CO	1	Genius GMBH	Genius	Germany	month 1	month 26
CR	2	Transgen	Transgen	Germany	month 1	month 26
CR	3	TÜVNORD Ensys Hannover GmbH & Co KG	TÜVNORD EnSys	Germany	month 1	month 26

### Project website:

[www.gmo-compass.org](http://www.gmo-compass.org)

### Executive Summary

GMO-COMPASS aimed at the establishment of an European consumer-oriented website ([www.gmo-compass.org](http://www.gmo-compass.org)) providing easily comprehensible information on issues of safety evaluation of GMOs and GMO-products. The information on risk analysis, assessment and risk management was embedded in the general GMO debate closely linked to political, legal and socio-economic aspects along the food chain.

GMO-COMPASS complements the existing information supply and transparency measures of EU institutions and state bodies as well as the websites of lobby groups and scientific institutions. The consumer has been reached by offering science-based information due to the expectations of laypersons embedded in a balanced reporting including counter-expertise and views of non-scientists.

### WP1 (Strategy for the EU-wide implementation of GMO-COMPASS)

An Advisory Board has been set up (task 1) that supported the establishment of the website by addressing the diverse key aspects of the GMO debate.

In order to report and mirror the specific cultural distinctions in the EU countries a network of seven local correspondents has been implemented (task 2). In the two years the local correspondents from diverse EU member states reported about the national GMO debate.

In order to reach the consumers in the EU countries in their own languages and social/cultural environments GMO-COMPASS should be mirrored on several national platforms. A strategy report on the medium and long term implementation of GMO-Compass has been worked out (task 3, deliverable 3, see attachment). This concept comprises a status quo analysis of potential national partners, their resources and platforms to establish GMO-Compass on the long run (Deliverable 3).

During the project runtime GMO-Compass established close co-operations with the German information portals [www.biosicherheit.de](http://www.biosicherheit.de) and [www.transgen.de](http://www.transgen.de). The portals have exchanged relevant information and articles and have contributed to a GMO database, which has been published in English and German language.

The animation “The Authorisation Process in Motion!” produced by GMO-Compass has been translated into German and is now also available on [www.transgen.de](http://www.transgen.de),

#### WP2: Establishment of the website [www.gmo-compass.org](http://www.gmo-compass.org)

The website provides easily understandable information on approval procedures and safety assessments for GMOs in the EU. Information on particular GMOs and GMO-products are linked with background information and general topics of relevance (see [www.gmo-compass.org](http://www.gmo-compass.org))

#### WP 3: On-line Discourse Consumers/Stakeholders

On September 11, 2006 GMO-Compass initiated an online discourse on “The Future of GM Crops in Europe – Coexistence with Conventional and Organic Farming” that lasted four weeks. Participants from 20 different (mostly European) countries took part, which contributed 106 posts. In sum, the online discourse had 428 registered users and 26.790 views has been counted in the four fora and 22 topic specific area, respectively.

#### WP4: Media Relations /off-line and on-line marketing

An intensive off-line and on-line marketing (e.g. content co-operations with consumer- and commercial food related websites, co-operations with consumer organisations ) lead to a remarkable publicity of the webpage. Approximately 10.000 external websites are referring to GMO-Compass (Google search). Between January 2007 and February 2007 the website was visited by approximately 250.000 users, who viewed about 2.610.00 pages. At the end of the reporting period, the information portal has been visited by about 1.000 users per day and more than 12.000 pages have been viewed per day (average). The visitors came from a wide range of countries (approximately 130 different countries) within Europe and beyond.

#### WP 5: Management of the Consortium activities

The co-ordinator led the management board, co-ordinated the project and contacted the European Commission. A regular contact between the consortium members was enabled not only by meetings but also by the establishment and usage of an online project management / editorial tool ([intern.gmo-compass.org](http://intern.gmo-compass.org)).

# 1 Project objectives and major achievements

## 1.1 Rationale and project objectives

After the upcoming end of the de facto moratorium it can be expected that genetically modified plants will be grown, harvested, and processed in member states of the EU. Additionally, the EU has decided on a new legal framework for the labelling of GMOs and GMO products.

Looking into the future the European consumer will increasingly be confronted with food products labelled with regard to the application of GMOs. Thus, the public interest in questions concerning GMOs and food and feed products made from GMOs will rise. A key topic will be the safety of these products.

The European consumers expect safe high-quality foods. However, they doubt whether GMO products can fulfil this requirement. The open public is not aware of the scientific basis of the approval procedure anchored in the Community law. Many consumers, public actors, and lobbyists cannot follow the decisions on the approval of GMOs and GMO products. Although important documents resulting from the process of approval as well as summaries of the safety assessments can be publicly accessed, they hardly affect the public formation of opinion.

This point is where GMO-COMPASS comes into play. The objectives are:

### ➤ **Stronger presence of knowledge based information in the public discussion**

So far, science-based information on the safety of GMO products and the approval procedure within the Community reaches its target group, the European consumer and the open public, only insufficiently. Likewise, research outcomes concerning safety aspects of GMOs as supported by EU framework programmes and national programmes are hardly known to the public. The public perception of these facts is rather selective: signs of safety concerns evoke a much larger reaction than science-based explanations. This intensifies a feeling of uncertainty in many consumers.

Information offers need to better adapt to the demand than they did up to now – this means to fit the expectations, needs, interests, and knowledge backgrounds of the consumers. Strong efforts are necessary to deliver scientific information on safety aspects of GMOs and on the foundations of state control to the public and to receive an appropriate perception. This is where GMO-COMPASS intends to contribute. Within this project, suitable concepts will be developed and realised.

### ➤ **Comprehensible information for *informed consumers***

One of the central approaches of the European food policy is the informed consumer, who makes an individual buying decision based on adequate information (*informed choice*). For science-based aspects to contribute to these decisions, they have to be easily

comprehensible and traceable for the consumer.

Within the frame of GMO-COMPASS scientific information will be presented appealingly and easily understandable. However, it is not the goal to enforce certain buying decisions (acceptance of GMO food), but to provide an adequate foundation of information to enable a proper decision-making. GMO-COMPASS aims at contributing here by offering consumers the possibility to use their freedom of choice with regard to GMO food deliberately and competently.

### ➤ **Trust through transparency**

Transparency and openness when dealing with risk analysis, risk assessment, and risk management of GMOs are the declared basis within the legal framework of the Community. Nevertheless does the simple publication of the documents of the approval process not automatically lead to more trust in science-based regulatory practice. One problem is that these documents are written from the perspective of experts and are poorly understood outside the scientific community.

In particular with questions of the safety assessment of GMOs, a dialogue between science and society is required. GMO-COMPASS is intended to perform this task.

### ➤ **A platform for dialogue and discussion on “Green” biotechnology**

The positions and opinions of laypersons and experts, the public and the scientific community differ mainly in questions about food safety. This applies to risk perception, expectations on safety and quality of food, and the implementation of the precautionary principle. GMO-COMPASS will create an Internet-based platform for a broad and open discussion of these questions. Interested consumers, stakeholders, multiplier, and experts will be invited to join the debate.

## **1.2 Main achievements**

### (1) Building up the GMO-Compass website

In order to reach the consumer suitable technical and textual information concepts as well as communication and marketing strategies (off-line and on-line marketing) were developed, implemented, and put to test. In the two years English- and German-spoken versions of GMO-COMPASS were developed and improved, respectively ([www.gmo-compass.org](http://www.gmo-compass.org) and [www.transgen.de](http://www.transgen.de)).

An Advisory Board supported the establishment of the website by addressing the diverse key aspects of the GMO debate. They reflected diversity in disciplines, fields of interest and nationalities. In order to report and mirror the specific cultural distinctions in the EU countries a network of local correspondents was implemented. In the two years local correspondents from diverse EU member states reported about the national GMO debate. They presented the EU-angle of the GMO-COMPASS project and supported the transfer of GMO COMPASS

to diverse European localities..

## (2) Increasing public dialogue

The website has been combined with a virtual platform for an open dialogue. A moderated on-line discourse was initiated and provided a dialogue between consumers, scientific experts and stakeholders on risk perception and consumer expectations on food quality and safety of GMO. Suitable marketing measures (off-line and on-line marketing) had accompanied the on-line discourse.

## 1.3 Important problems and corrections

### **Deliverable 3: Strategy report on the medium and long term implementation of GMO-Compass**

The strategy report on the medium and long term implementation of GMO-Compass (M22, report see attachment) was postponed to the end of the project.

It was recognised that no suitable partner websites in the EU country members are available (according to a list of criteria defined by the consortium and the investigation that haven't taken place, see attachment: Deliverable 3). Due to that reason the consortium decided to continue with the exploration of other alternatives.

However, realising the above mentioned restriction of the establishment of a pan-European GMO-Compass platform, the consortium also used the available resources to maximise the dissemination level of GMO-Compass during the project period (see D3 report).

In order to reach the consumers in the EU countries in their own languages, we also propose to expand the central website of GMO-Compass by a core multilingual information system (e.g, English, French, German, Spanish and Italian) and to allow consumer information platforms in other EU countries to mirror/translate the content of GMO-Compass (or parts of it) on their own platforms (as a regulated franchise system coordinated by the editorial office). By this means the dissemination level and multilingualism would be significantly improved.

### **Deliverable 4: Going online (website)**

The launch of the website was delayed (M6 → M12) due to a change of the project managers (Sebastian Schulte left the company and was replaced by Christoph Löwer). On this account the project runtime was extended (February 2007).

## 2 Work package progress

### 2.1 WP1- Strategy for the EU-wide implementation of GMO-COMPASS

#### 2.1.1 Objectives and progress

In the long-run the information and communication options on [www.gmo-compass.org](http://www.gmo-compass.org) shall be available to consumers in many European countries. Therefore a concept for the EU-wide implementation and operation of the website had to be developed. It was intended to mirror contents and components of [www.gmo-compass.org](http://www.gmo-compass.org) in diverse national languages and to integrate them into established national web based platforms.

#### Task 1: Establishment of an Advisory Board

- *Responsible partners: Genius*
- *Scheduled date: January 2005*
- *Actual date: January 2005*
- *Deliverables: Establishment of an Advisory Board reflecting diversity in disciplines, fields of interests and nationalities*
- *Achievement: 100% (Advisory Board established)*

The strategic and operational execution of WP 1 had to be accompanied by an Advisory Board. Representatives of diverse disciplines, field of interests and nationality reflecting the diversity in views should support the project covering the diverse aspects of the GMO debate including addressing the key aspects of food safety and quality along the food chain.

A advisory board was established at the beginning of the project. Its members were:

- Simon Barber (EuropaBio, Belgium)
- Karin Metzloff (EPSO, Belgium)
- Morten Gylling (Danish Research Institute of Food Economics, Denmark)
- Vivian Moses (Kings College, United Kingdom)
- Jochen Schiemann (Federal Biological Research Centre, Germany)
- Barbara Gallani (BEUC, Belgium)
- from 2006: Suzy Renckens (EFSA, Italy) as an observer

Two meetings of the Advisory Board (AB) have taken place in Darmstadt (May 2005) and in Brussels (February 2006). Thus no general corrections have been recommended by the AB concerning the editorial concept and output, a third meeting did not take place (in agreement with the AB members). However, the Management Board kept regularly contact with the members of AB during the whole project period. EFSA continued to check the scientific quality of GMO-Compass articles related to the safety evaluation of this authority.

## Task 2: Establishment of a network of local correspondents

*Responsible partners: Genius*

*Scheduled date: 1 April 2005 – 31 December 2006 and 1 February 2006 – 31 December 2006, respectively*

*Actual date: 1 April 2005 – 31 December 2006 and 1 February 2006 – 31 December 2006, respectively*

*Deliverables: Identification, evaluation, installation and co-ordination of local correspondents in seven EU member states (first year: GB, NL, SF, A and D; second year: E, I and SLO)*

*Achievement: 100 %*

In order to represent the GMO debate in the different EU member countries with their different social and cultural environments a network of local correspondents has been established.

They are members of the editorial team (see WP2). They were responsible to deliver reports, stories and dossiers reflecting the GMO debate in their own country (e.g. legal situation, GMO cultivation, socioeconomic aspects in the public discussion). The reports had been edited and translated into English and German by the editorial office (see WP 2).

The local correspondents were:

- Dr. Jeremy Sweet, UK, Cambridge
- Dr. Ursula Hunger, Austria, Dialog Gentechnik, Vienna
- Dr. Sirpa Pietilä, Finland, Maininki, Helsinki
- Ank Jansen, The Netherlands, Schuttelaar & Partners, The Hague
- Mojca Milavec, Slovenia, National Institute of Biology; Ljubljana
- Giorgos Sakellaris, Greece, Institute of Biological Research and Biotechnology, Athens
- Lorena Muñoz, Spain, Innovations and Life Sciences, Madrid

The local correspondents have been asked to use more than 50 % of their project capacity for marketing of the website and to support the upcoming online discourse. There was a regular contact to all local correspondents and an exchange of relevant news and articles and an intensive press work for marketing of the website.

## Task 3: Concept for medium and long term implementation of GMO-Compass

*Responsible partners: Genius*

*Scheduled date: 1 April 2005 – 31 December 2006*

*Actual date: 1 April 2005 – 28 February 2007*

*Deliverables: Strategy report on medium and long term implementation*

*Achievement: 100 %*

In order to reach the consumers in the EU countries in their own languages and social/cultural environments GMO-COMPASS should be mirrored on several national platforms. WP1 has delivered a concept / report for an EU-wide implementation of GMO-



COMPASS (status quo analysis of potential national partners, their resources and platforms to establish GMO-Compass on the long run (Deliverable 3, see attachment). Additionally, the potential for future funding of the internet platform has been explored .

GMO-Compass has successfully established tight links to the German internet platforms TransGen.de (for example, the animation “Authorisation process in motion” and a comprehensive GMO database was integrated on the national website [www.transgen.de](http://www.transgen.de), see below) and Biosicherheit.de ([www.biosicherheit.de](http://www.biosicherheit.de) / [www.gmo-safety.eu](http://www.gmo-safety.eu)). GMO-Compass also cooperated with the EU funded research project Co-Extra (GM and non-GM supply chains: Their coexistence and traceability; [www.coextra.eu](http://www.coextra.eu)).

#### **TransGen.de:**

- The two portals have exchanged relevant information and articles and have contributed to a GMO database, which has been published in English and German language on both portals (<http://www.gmo-compass.org/eng/gmo/db/> and <http://www.transgen.de/zulassung/>).
- The animation “The Authorisation Process in Motion!” on GMO-Compass has been translated into German and is now also available on [www.transgen.de](http://www.transgen.de) (<http://www.gmo-compass.org/flash/popup.php?lang=eng> and <http://www.gmo-compass.org/flash/popup.php?lang=ger>)
- The database “plants, food and food additives” of TransGen.de has been expanded in cooperation with GMO-Compass and will be translated into English and published on the GMO-Compass website. This database will offer more detailed and easy searchable information on the composition of processed foods and the potential use of genetic engineering in the corresponding production processes.
- Expansion of range: TransGen.de is visited by a large amount of Austrian and Swiss people. Additionally TransGen/GMO-Compass is cooperating with the FIBL (Forschungsinstitut für biologischen Lanbau / Research Institute for Organic Farming) and has supported the establishment of the Swiss specific information platform TransGen.ch (<http://www.transgen.ch/>) .

#### **Biosicherheit.de:**

- The GMO-Compass newsletters has been used to distribute outcomes of biosafety research and articles on bioSicherheit.de relating to the public debate on biosafety topics.
- The editorial office has contributed articles on biosafety topics that were published on GMO-Safety.eu (e.g., Cotton pest develops resistance to Bt plants: "evolution in action"; <http://www.gmo-safety.eu/en/news/618.docu.html> / Bt plants: no evidence that they are harmful to bees, <http://www.gmo-safety.eu/en/news/610.docu.html>).

### **Co-Extra.eu:**

Co-Extra, an EU funded research project (2005-2009), aims at the provision of new tools for enabling co-existence between GM and non GM (conventional and organic) crops and tracing of genetically modified organism (GMO) materials and derived products, along the food and feed chains.

- The workpackage 8 of Co-Extra (dialogue and communication) and GMO-Compass have started to exchange relevant news articles that have been published on both websites.
- A greater number of news articles of Co-Extra will be translated in different European languages (Spanish, Greece, Dutch, French and Slovene); (see [www.coextra.eu](http://www.coextra.eu))

### **International outreach**

Right from the start, GMO-Compass aimed to improve the dissemination level by co-operation with international news services in the area of agro-biotechnology. Several of them were contacted and a vivid exchange of relevant information and articles has been achieved. The following news services regularly disseminate GMO-Compass articles via their newsletters:

- AgBioView (AgBioWorld, [www.agbioworld.org](http://www.agbioworld.org))
- CropBiotechUpdate (International Service for the Acquisition of Agri-biotech Applications, ISAAA, <http://www.isaaa.org/>)
- CheckBiotech (<http://www.checkbiotech.org/>)
- Agricultural Network (International Food Safety Network at Kansas State University AgNet, <http://foodsafety.ksu.edu/en/>)
- SeedQuest (Global Information Services for Seed Professionals, <http://www.seedquest.com/>)

#### *Impact of co-operation (readers of these news services – website and/or newsletter)*

- Cropbiotech Update (278,000 subscribers/readers)
- Checkbiotech (ca. 150.000 subscribers/readers)
- AgBioView (ca. 60.000 subscribers/readers)
- SeedQuest (ca. 50.000 subscribers/readers)

A major step of our efforts to expand the dissemination of information of GMO-Compass flags the transfer of GMO-Compass articles by ISAAA's news service (newsletter). CropBiotech Update provides news in Arabic, Bahasa Indonesia, Bangla, Chinese, France, Italian, Portuguese, Spanish and Vietnamese language.

The list below shows a selection of GMO-Compass news distributed by this service:

- HORIZONTAL TRANSFER, HUMAN HEALTH EXPLORED  
[http://www.isaaa.org/kc/CBTNews/2006\\_Issues/Feb/CBT\\_Feb\\_17.htm](http://www.isaaa.org/kc/CBTNews/2006_Issues/Feb/CBT_Feb_17.htm)
- HERBICIDE RESISTANT ALFALFA SOLD TO US FARMERS  
[http://www.isaaa.org/kc/CBTNews/2006\\_Issues/March/CBT\\_March\\_17.htm](http://www.isaaa.org/kc/CBTNews/2006_Issues/March/CBT_March_17.htm)
- CO-EXTRA PROJECT ON CO-EXISTENCE AND TRACEABILITY OF GMOs  
[http://www.isaaa.org/kc/CBTNews/2006\\_Issues/Nov/CBT\\_Nov\\_24.htm#17](http://www.isaaa.org/kc/CBTNews/2006_Issues/Nov/CBT_Nov_24.htm#17)
- CULTIVATION OF GM POTATO IN THE EU - A NEAR POSSIBILITY  
[http://www.isaaa.org/kc/CBTNews/2006\\_Issues/Dec/CBT\\_Dec\\_01.htm](http://www.isaaa.org/kc/CBTNews/2006_Issues/Dec/CBT_Dec_01.htm)
- STUDY SHOWS GROWING ACCEPTANCE OF GREEN BIOTECH IN SWITZERLAND  
[http://www.isaaa.org/kc/CBTNews/2006\\_Issues/Dec/CBT\\_Dec\\_15.htm](http://www.isaaa.org/kc/CBTNews/2006_Issues/Dec/CBT_Dec_15.htm)
- Ten Years of Labeling In Europe  
<http://www.isaaa.org/kc/cropbiotechupdate/online/default.asp?Date=2/2/2007>
- CORNERSTONE PAPER FOR AMENDED GENE TECH ACT GETS APPROVAL  
<http://www.isaaa.org/kc/cropbiotechupdate/online/default.asp?Date=3/9/2007>

Further examples of GMO-Compass articles disseminated by such news services are:

- Indian Company Develops Home-grown Bt-Cotton  
[http://www.agbioworld.org/newsletter\\_wm/index.php?caseid=archive&newsid=2559](http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2559)
- Genetically Modified Plants and the Environment  
[http://www.agbioworld.org/newsletter\\_wm/index.php?caseid=archive&newsid=2500](http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2500)
- GM and Human Health  
[http://www.agbioworld.org/newsletter\\_wm/index.php?caseid=archive&newsid=2508](http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2508)
- Ten Years of Labelling in Europe: Few Products, But A Lot of Discussion  
[http://www.agbioworld.org/newsletter\\_wm/index.php?caseid=archive&newsid=2644](http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2644)
- Cute Animation of EU GMO Approval Process  
[http://www.agbioworld.org/newsletter\\_wm/index.php?caseid=archive&newsid=2471](http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2471)
- GMO Communication and safety evaluation platform  
<http://www.seedquest.com/News/releases/2006/february/14989.htm>
- Cultivation of GM potato in the EU - A near possibility  
<http://www.seedquest.com/News/releases/2006/november/17693.htm>
- European Ag Ministers agree to coexistence of biotech, non-biotech and organic crop production  
<http://www.seedquest.com/News/releases/2006/may/15839.htm>
- ¿La conferencia austriaca Libertad para elegir se ajustará a su título?  
<http://www.seedquest.com/News/releases/2006/april/15403.htm>

## 2.1.2 Deviations

### Deliverable 3: Strategy report on the medium and long term implementation of GMO-Compass

The strategy report on the medium and long term implementation of GMO-Compass (M22, report see attachment) was postponed to the end of the project.

It was recognised that no suitable partner websites in the EU country members are available (according to a list of criteria defined by the consortium in D3). Due to that reason the consortium decided to continue with the exploration of other alternatives.

However, realising the above mentioned restriction of the establishment of a pan-European GMO-Compass platform, we also tried to use the available resources to maximise the dissemination level of GMO-Compass during the project period (see D3 report).

In order to reach the consumers in the EU countries in their own languages, we also propose to expand the central website of GMO-Compass by a core multilingual information system (e.g, English, French, German, Spanish and Italian) and to allow consumer information platforms in other EU countries to mirror/translate the content of GMO-Compass (or parts of it) on their own platforms (as a regulated franchise system coordinated by the editorial office). By this means the dissemination level and multilingualism would be significantly improved.

### Deliverable list

Del. no.	Deliverable name	Date due	Actual delivery date	Nature	Dissemination level	Participant No
D1	Advisory Board	1	1	O	PU	1
D2	Network of local correspondents	4-14	4-14	O	PU	1
D3	Strategy report on GMO-Compass transferability*	22	27	R	PU	1

\* Postponed according to consortium decision at 15<sup>th</sup> Nov. 2006

## **2.2 WP 2: Establishment of the website [www.gmo-compass.org](http://www.gmo-compass.org)**

### **2.2.1 Objectives and progress**

*Responsible partners (consortium): Genius, TransGen, TÜV NORD EnSys*

*Scheduled date: 1 January 2005 – 31 December 2006*

*Actual date: 1 January 2005 – 28 February 2007*

*Achievement: 100 %*

The website had to be designed to provide easily understandable information on approval procedures and safety assessments for GMOs in the EU. Information on particular GMOs and GMO-products had to be linked with background information and general topics of relevance. The goal was to embed the information on risk analysis, assessment and risk management in the general GMO debate. Political, national, legal and socioeconomic aspects along the food chain should be closely linked and presented in form of condensed information packages.

#### Task 1: Editorial conception

The realised editorial conception of the GMO-Compass website is following the above defined objectives and comprises several kinds and levels of information (GMO product-related, issue-related, background information, research outcomes) and different journalistic styles e.g. news, interviews, database, stories or compact (pocket-) information. The reporting includes links to counter-expertise and views of non-scientists (see summary of editorial output in task 4 below and <http://www.gmo-compass.org/>)

## GMO COMPASS: Contents – Navigation Structure

- News/Current Affairs
  - o News messages
  - o Stories
  - o National reports
- Grocery Shopping
  - o Fruit and Vegetables
    - Tomato
    - Chicory
    - Papaya
    - (Apple)
    - (Grapes)
  - o Crops/Grain/Cereals (Row Materials)
    - Soy
    - Maize
    - Rape seed
    - Potato
    - Sugar beet
    - Wheat
    - Rice
    - (Cotton)
  - o Processed Food, Ingredients
    - Baking goods
    - Sweets
    - Fats, Oils
    - Frozen goods
  - o Food from Animals
    - Milk
    - Eggs
    - Meat
- Applied Biotechnology
  - o Agri-biotechnology (Approach/Methods)
  - o Enzymes, Additives: vitamin B2
- GMO Database
- Safety
  - o Environmental Safety
    - Biodiversity
    - Horizontal Gene Transfer
    - Outcrossing
    - Non-target Effects
    - Epigenetics/Pleiotropic Effects
  - o Human Health
    - Allergenicity
    - Toxicity
    - Food Safety Evaluation
- Regulation
  - o Regulatory Process
  - o Traceability
  - o Labelling
  - o Co-existence
- Online Discourse
- Site Search
- Glossary
- Newsletter (Subscribe/Unsubscribe)
- (Site Map)
- Imprint

## Task 2: Technical development of an editing and content management system as well as web design; technical maintenance of the website; on-line marketing

Programming, web design, and technical maintenance have been executed by a subcontractor. The following work has been done:

- implementation of navigation tools
- web design including optical aids for orientation (colour system, icons)
- intranet for the external information flow between the partners of the consortium
- development of modules for the different levels of information and design of a scheme for the optimal presentation on monitors
- interface for an on-line editorial server; interface for an on-line discourse
- programming including on-line discourse and site search
- technical maintenance: hosting, server maintenance, on-line marketing (search engines, web catalogue, usage statistics)

## Task 3: Data analysis, raw version of texts, reporting from the EU countries

The work done includes:

- evaluation of documents from approval procedures (placing on the market according to 2001/18/EC; information and reports about risk management and evaluation, traceability and labelling according to the regulations (EC) 1829/2003 and 1830/2003)
- evaluation of relevant research projects (projects from current and finished EU programmes like 1st - 6th framework, BAP, Flair, Bridge, AIR) and individual national programmes
- evaluation of additional materials (EU documents, scientific literature, etc.)
- generation of background texts (political, national, legal and socioeconomic aspects along the food chain such as co-existence, non-GMO-production, labelling, traceability)
- composition of raw versions; upload to the editorial system

The publications on the GMO-Compass website reflect the output of the consortium work relating to task 3. A more detailed description of the journalistic output is given below (task 4, editorial maintenance of the website)

#### Task 4: Editorial maintenance of the website [www.gmo-compass.org](http://www.gmo-compass.org)

In the course of the project period the Editorial Office continuously has written e.g., reports, news, newsletters and background stories. The editorial output can still be viewed on the active GMO-Compass website ([www.gmo-compass.org](http://www.gmo-compass.org)). In detail:

- 83 news messages (see below)
- 14 background stories (see below)
- Country Reports “GMOs in the EU Member States” (26 webpages)  
(Austria, Finland, Germany, Greece, The Netherlands, Spain, The United Kingdom)  
Main topics: Field trials and commercial cultivation, coexistence, GM food surveillance, legislation, authorities, research
- GMO database (106 entries)  
This database contains information about every genetically modified plant that has been approved or is awaiting approval in the EU. Information on the food and feed produced from the respective GM plant is also available. In detail: Overview of application status; short description of the GM plant; short description of the safety evaluation (EFSA; European Food Safety Authority); references to all publicly available documents)
- Grocery shopping (32 webpages): Description of a broad range of crops and derived food (inclusive food additives, ingredients, enzymes) and the possible use of genetic engineering in the production process. This information pages are particularly written for consumers, who want find out more on products in the shelves of supermarkets and their possible relations to genetic engineering.
- Agri-Biotechnology (43 webpages): Goals of plant breeding using genetic engineering techniques, adoption of GM crops round the world, statistics on field trials in Europe
- Safety (26 webpages): Safety evaluation of GM crops (evaluation of environmental and health issues)
- Regulation (27 webpages): Description of the regulatory process in Europe, labelling rules, coexistence topics, e.g. “Genetic engineering and food: The European legal system”; “The long road to authorisation: From application to final decision”; “Complex laws”; “Labelling Guide”; “Organic Products: Without genetic engineering”; “GMO labelling in the European Union: Basic Principles”
- Production of Flash animation “The Authorisation Process in Motion!”
- 209 Glossary entries (see below)
- Service page: Webpage providing useful links to authorities, important information resources, association, NGOs, etc.

The work also included translations, html formatting, the use of a content management system and provision of technical and textual connectivity of the different modules on the website.



## **News provided by GMO-Compass:**

26 February 2007

### **Coexistence regulations progress in the Nordic countries**

In 2005, Denmark was the first Nordic country to introduce regulations on the coexistence of genetically modified, conventional and organic crops. A new report by the Nordic ...

26 February 2007

### **GM feed to prevent infections**

The small biotech firm Novoplant has applied for field trials in Gatersleben, Germany, using genetically modified peas to produce antibodies against bacteria which cause ...

23 February 2007

### **USA: Court orders new safety assessment for GM-alfalfa**

A US-American court has ruled that a genetically modified alfalfa (Luzerne), cultivated since 2006, must be assessed once more in respect to its environmental safety. The US ...

23 February 2007

### **A new generation of GM soy awaits approval**

The agro biotech company Monsanto is seeking approval for an advanced variety of a GM soy. Tolerant to the herbicide Roundup, and based on a variety that has been cultivated ...

23 February 2007

### **More GM maize in Germany**

Estimates indicate more cultivation of genetically modified maize in 2007 than in the prior year. Three months before the start of the sowing season in April/May, 3774 ...

22 February 2007

### **EU environment ministers: No end for Hungarian ban on MON810**

The EU commission has failed with its attempt to lift Hungary's ban on genetically modified maize MON810. The insect-resistant maize was created by the US company Monsanto, ...

21 February 2007

### **Uganda to test genetically modified bananas**

Geoffrey Arinaitwe, a Ugandan scientist based in Belgium, has developed a genetically modified banana resistant to pests and diseases and has applied to the Uganda National ...

19 February 2007

### **One Million Europeans for Labelling Extension**

On February 5th, the environmental organisation Greenpeace presented to the EU Commissioner for Health, Markos Kyprianou, a petition signed by one million EU citizens. They ...

19 February 2007

### **What is the future of GMO detection? A scientist's opinion, spoken freely**

In August 2006, US authorities informed the EU of long-grain rice shipments contaminated with unauthorised GM rice, which sparked a new ...

26 January 2007

### **Ten years of labelling in Europe: few products, but a lot of discussion**

Ten years after the introduction of labelling requirements in Europe for genetically modified foodstuffs, there is still little evidence of such on an ordinary trip to the ...

19 January 2007

### **GM Plants 2006: Global Cultivation Exceeded 100 Million Hectares**

Last year, the agricultural use of genetically modified plants rose once more. The worldwide area of cultivation increased by an additional 12 million to 102 million ...

03 January 2007

### **Syngenta Seeds to pay \$1.5 million penalty for Bt 10 affair**

On December 21st, the US company Syngenta Seeds and the US Environmental Protection Agency (EPA) have agreed upon a penalty of 1.5 million US dollars for selling and ...

02 January 2007

### **EU-Council of Ministers: Further toleration of Austria's bans on genetic engineering**

Austria may continue to maintain their national ban on both genetically modified corn lines MON810 and T25 for the time being. Once again, the EU-Commission failed to achieve ...

29 December 2006

**Genetically modified crops can bring economic benefits**

Growing genetically modified crops can result in economic benefits for farmers. This is the conclusion of a study by the European Joint Research Centre (JRC). However, the ...

19 December 2006

**EFSA seeks opinions on safety assessment**

On 15 December, the European Safety Authority (EFSA) published a draft report on the role of animal feeding trials in the safety assessment of foods and feed which have been ...

13 December 2006

**DemoSCOPE Poll: Acceptance of Green Gene Technology is growing in Switzerland**

A referendum among Swiss citizens in 2005 showed that more than half of the voting public agreed with a five-year moratorium on the application of gene technology in ...

06 December 2006

**No qualified majority for approval of GM potato "Amflora"**

On Monday, the Standing Committee of EU environment experts conferred on the first approval for commercial cultivation of a genetically modified plant since 1998. Based on ...

30 November 2006

**US Department of Agriculture deregulates GM rice LL601**

On 24 November 2006, the US Department of Agriculture (USDA) approved the genetically modified rice LL601 for deregulation. The authority assessed the rice, which has been ...

30 November 2006

**Hungary enacts restrictive GM crop law**

On 27 November 2006, the Hungarian parliament passed a new act on genetically modified crops. The legislation severely restricts the cultivation of GMOs and is considered to ...

29 November 2006

**US company has developed new GM technology**

Creating genetically modified plants has always been a long and expensive process, accompanied by uncertainties. On November 16, the US biotech firm Cibus LLC presented a new ...

27 November 2006

**GM Potatoes: Soon to be approved for cultivation in the EU**

For the first time since 1998, a genetically modified plant may be approved for cultivation in the EU. A draft document from Stavros Dimas, Commissioner for the Environment, ...

27 November 2006

**GMO-Safety.eu: Information portal brings transparency to biosafety research**

Does genetically modified maize have an impact on beneficial insects? How does genetically modified oilseed rape affect pollen-collecting bees? How can transgenic pollen and ...

27 November 2006

**Scientist develop edible GM cotton**

US researchers have created a genetically modified cotton which produces seeds without gossypol. Gossypol, an insecticide which is naturally present in the seeds, is ...

22 November 2006

**EU: Renewal of approval for existing GM products**

The European Food Safety Authority (EFSA) has published draft guidelines for the renewal of approval for genetically modified plants and derived food and feed. Primarily, ...

09 November 2006

**Swiss literature study finds no significant environmental impact of GM crops**

GM cropping systems must be compared with the existing alternative: conventional farming. In a large literature study by Swiss Agroscope Reckenholz-Tänikon Research Station ...

02 November 2006

**Coexistence: Britain's organic farmers see "all the risk and no benefit"**

Organic farmers in the UK agree that coexistence regulations are necessary, since GM cultivations seem inevitable. A few days before the Department for Environment, Food and ...

23 October 2006

**European Parliament holds public hearing on biotechnology**

On 10 October, the European Parliament held a public hearing on genetically modified plants and on co-

existence. The statements of the different speakers reflected the ...

20 October 2006

**Germany likely to review GMO authorisation procedure during upcoming EU Presidency**

German State Secretary Gert Lindemann has told the journal Agra-Europe that Germany will use its EU Presidency in the first half of 2007 to take a look at the procedure for ...

20 October 2006

**Commission to act against national bans on GMOs in Austria and Poland**

On 12 October 2006, the European Commission opened infringement proceedings against Poland over the country's ban on all cultivation of genetically modified plants. The ...

13 October 2006

**Majority of the world's soybean production is genetically modified**

According to Brazilian officials, genetically modified cultivars will account for at least 50 percent of the total soybean planting in the next cropping season. The Brazilian ...

13 October 2006

**GM rice LL601: More tests and import stops**

On 4 October, the European Commission announced a proposal to introduce mandatory testing of rice imports from the USA. This proposal will be reviewed by farm experts for 15 ...

09 October 2006

**Verdict in WTO conflict: EU moratorium on approval of GMOs was unlawful**

Between 1998 and 2003, the treaties of the World Trade Organisation (WTO) were violated by the EU moratorium on approval of genetically modified plants, and of food and feed ...

29 September 2006

**Germany: Unapproved GM rice from China found**

In tests carried out on individual foodstuffs, a genetically modified rice strain from China has been detected by food inspection authorities in Lower Saxony, Hesse and ...

28 September 2006

**ISAAA: GM cultivation to double worldwide by 2015**

The International Service for the Acquisition of Agri-biotech Applications, ISAAA, an agency primarily active in developing countries, has published a prognosis of doubled ...

26 September 2006

**Application for field trials with GM grapevine in South Africa**

Scientists at the Institute for Wine Biotechnology at Stellenbosch University, South Africa, have applied for the approval of field trials with genetically modified ...

20 September 2006

**Hungary's ban on GM maize persists**

On Monday, the EU voted on an important question related to genetically modified crops. A committee of EU-25 biotech experts decided that Hungary will not have to lift its ...

19 September 2006

**GM Rapeseed Ms8xRf3: Stalemate again in Council of Ministers**

Once again, the EU member states were unable to agree upon a decision on the approval of a genetically modified product. This time, the subject for debate was the import and ...

18 September 2006

**France loses ground as GM haven**

According to the French Association of Cereal Growers (AGPB), the French biotechnology company Biogemma is considering waiving all further field trials with genetically ...

15 September 2006

**EFSA statement on GM rice LLRICE601**

"The GMO Panel has evaluated the available scientific data on LLRICE601. According to the Statement of the Panel issued today there is insufficient data to provide a full ...

13 September 2006

**USDA moves to deregulate controversial Bayer rice**

The United States Department of Agriculture has initiated the process of deregulation for an unapproved, genetically-modified variety of long-grain rice, known as LL RICE ...

12 September 2006

**Tightened import controls in Europe detect unauthorised GM rice**

Only a month after the EU tightened requirements on US long-grain rice imports, illegal GM rice has been detected in Rotterdam confirming the need for strict controls. ...

08 September 2006

**EU commission demands strict controls for GM rice by European food importers**

Alerted by environmentalists' recent finding of unauthorised Chinese GM rice in European food imports, the European Commission warns operators to keep illegal food products ...

04 September 2006

**Test kit for LLRice 601 announced**

On 01 September, the effectiveness of a 10-minute test kit for LLRice 601 (a GM product currently without approval) was confirmed by the US Department of Agriculture. Rice ...

04 September 2006

**Romania: Joining the EU troubles GM soy bean farmers**

On 01 January 2006, Romania will join the European Union. While the public broadly appreciates this step, soy bean farmers are afraid: Most of them cultivate ...

28 August 2006

**Detection method available for GM rice LL601**

Since Monday this week, food surveillance authorities in EU member states can test imports of long-grain rice for contamination with the unauthorised GM rice LL601. After ...

23 August 2006

**EU restricts import of US rice after contamination with GM rice**

In the USA, traces of non-approved genetically modified rice have been found. The GM rice, called LL601, has been genetically modified to be resistant to herbicides ...

21 August 2006

**First GM wines to hit US markets this year**

The US wine industry has developed a strain of yeast to eliminate certain chemicals which, in red wine, are believed to trigger headaches and migraines in some people. ...

07 August 2006

**First-time approval of pharmaceuticals from transgenic animals - GTC Biotherapeutics announces approval of ATryn**

For the first time, the European Commission has given market approval for a pharmaceutical product derived from genetically modified animals. It is called ATryn, is extracted ...

04 August 2006

**GMO Battle in France Heats Up**

Anti-GMO activists have stepped up attacks on GMO plantings in France, now for the first time extending action to commercial GM fields. Previously, only non-commercial field ...

31 July 2006

**Bt Maize in Spain: Greater Quantity, Higher Quality**

Bt maize planted in 2005 not only boosted yield for Spanish farmers – those who went GM also enjoyed higher grain quality in critical areas such as grain moisture and ...

29 July 2006

**Success of Bt Cotton in China May Be Thwarted by Secondary Pests**

Bt maize in China seems to be working like a charm. The crop's major pest, the cotton bollworm, is nowhere to be found on GM cotton fields, and the pest does not yet appear ...

27 July 2006

**French Court Orders Greenpeace to Withdraw Map of GM Plantings**

A court in Paris ordered Greenpeace to take a map off its french website detailing the locations of GM plantings throughout the country. The decision stems from a complaint ...

21 July 2006

**UK Moves Forward with Coexistence Plans**

Defra, the UK's Department for Environment, Food, and Rural Affairs, proposed measures yesterday for securing coexistence between GM, conventional, and organic crops. A 92 ...

19 July 2006

**Biotech Company Announces Plan to Market Plant-made Human Insulin**

The Canadian biotech company SemBioSys announced yesterday that it has developed transgenic safflower that bears seeds harbouring human insulin. The company predicts that the ...

11 July 2006

**USA: GM Crops Still Gaining Ground**

The American market for biotech crops has still not been saturated. The latest report from the US Department of Agriculture's statistics service confirms that once again in ...

29 June 2006

**EFSA: New Initiatives to Enhance Teamwork with Member States**

With the EU Environmental Council's June 27th discussion on GMOs approaching, the European Food Safety Authority (EFSA) informed the Council in an open letter of its ongoing ...

26 June 2006

**Authorisation Sought for Fish Protein in Low-fat Ice Cream**

The food company Unilever has sought permission from the UK's Food Standards Agency to use a fish-derived protein as a novel ingredient in ice cream. The protein lowers the ...

26 June 2006

**Indian Company Develops Home-grown Bt-Cotton**

Field tests are now underway with India's first home-grown Bt-cotton varieties. The Bangalore based biotech company Metahelix is set to release its own Bt-cotton lines ...

20 June 2006

**Majority of Europeans Believe Biotech Will Improve Quality of Life**

The findings of a new Eurobarometer survey on the attitudes of Europeans toward biotechnology was presented in Brussels on Thursday. The study reveals that 52 percent of ...

08 June 2006

**17 New GMO Field Trials Approved in France for 2006**

French agricultural minister Dominique Bussereau authorised 17 new field trials with transgenic maize and tobacco on May 19th. The tests were deemed safe for environment and ...

24 May 2006

**Field Trial with GM Potatoes in Ireland Withdrawn**

The German chemical and biotech company BASF announced the withdrawal of its planned 4 year field trial with GM potatoes in Meath Co., Ireland. The potatoes are genetically ...

23 May 2006

**EU Council of Ministers: Disagreement over Threshold for GMO Traces in Organic Goods**

The EU Agriculture Council was unable to agree on a threshold limit for traces of GMOs in organic products. The council opened debate on the topic for the first time on ...

12 May 2006

**Bt Maize in the EU: Plantings Expanding in France and in the Czech Republic**

Preliminary statistics on the 2006 growing season are suggesting that Bt maize production is continuing to expand in Europe. France and the Czech Republic are posting the ...

12 May 2006

**WTO: The EU's Former Moratorium on GMO Approvals Violated Free Trade Agreements**

The World Trade Organisation (WTO) released its official decision on the trade dispute over GMOs between the EU and a group of agro-product exporters led by the United ...

12 May 2006

**Slovakia Authorises First GMO Field Trials**

In late April, the Slovak government authorised field trials with genetically modified MON 810 maize at three undisclosed locations. The total area of the field trials is ...

10 May 2006

**Poland Eyes National Ban on GMOs**

The Polish parliament is in the midst of finalising a piece of legislation set to restrict the sale and registration of GM crops. The extent to which the law will keep ...

12 April 2006

**European Commission Releases New Plan to Address GMO Safety Concerns Raised by Member States**

The European Commission released a statement today stating its willingness to accept more input from Member States regarding its safety assessments of genetically modified ...

06 April 2006

**Experts Gather in Vienna to Discuss Coexistence**

The European Commission in association with the Austrian presidency of the European Union held a conference in Vienna entitled "Freedom of Choice" on the coexistence of ...

23 March 2006

**Application Submitted: GM Maize for Bioethanol Production**

The Swiss agribiotech company Syngenta recently submitted an application to the EU for the authorisation of a new line of GM maize intended to facilitate ethanol fuel ...

19 March 2006

**Cartagena Protocol: Stricter GMO Labelling in 2012**

As of 2012, precise labelling must accompany international shipments of agricultural products containing genetically modified organisms. This was the final outcome of the ...

11 March 2006

**European Commission: No EU-wide Rules for Coexistence**

For the time being, measures for ensuring the coexistence of genetically modified crops with conventional agriculture will remain up to the individual Member States. The ...

08 March 2006

**Roundup Ready Alfalfa: New Biotech Crop Enters Market**

Monsanto, the world's largest agro-biotech company, has begun selling its Roundup Ready alfalfa seed to farmers in the United States. After soybean, maize, cotton, and ...

03 March 2006

**European Commission Authorises 1507 Maize for Food Use**

The European Commission has authorised the food use of 1507 maize. 1057 is a transgenic maize line developed by the companies Pioneer and Dow AgroScience. It offers ...

25 February 2006

**EFSA's Opinion on GM Starch Potato: No Threat to Health and Environment**

On February 25th, the European Food Safety Authority (EFSA) released its opinion on the safety of the transgenic amylopectin starch potato. Based on a comprehensive ...

25 February 2006

**EU Releases New Study on GM Plants: Coexistence Possible**

The coexistence of genetically modified and conventional crops in European agriculture is not expected to pose major problems. This was the main finding of a new report on ...

07 February 2006

**WTO: EU's GMO Policies Violate Trade Agreements**

The World Trade Organization (WTO) ruled in favour of the United States, Canada, and Argentina in a battle against the EU's policies on GMOs. The three countries filed ...

27 January 2006

**Application Submitted for Maize With Altered Amino Acid Composition**

For the first time ever, an application was submitted to the EU for the authorisation of a GM crop with modified nutritional value. The new line of maize was developed by ...

16 January 2006

**European Commission Grants Authorisation to Three GM Maize Lines**

On January 13th, the European Commission granted authorisation to three new lines of genetically modified maize. The decisions pertain to the maize lines MON 863, GA21, and a ...

13 January 2006

**Worldwide GMO Production Reaches 90 Million Hectares**

In the 2005 growing season, worldwide production of genetically modified crops increased by 11 percent compared to the previous year. Today's transgenic crops are ...

05 December 2005

**Once Again, No Decision from Council of Ministers: MON 863 x MON 810**

The European Commission's draft for a decision on the authorisation of a GMO was not met with a qualified majority at the Council of Ministers. This time the GMO was a ...

27 November 2005

**Switzerland: Solid Majority Behind GM-Free Initiative**

With unexpected solidarity, Swiss citizens approved a five year ban on the commercial use of genetically modified plants and animals. Supporters of the initiative had the ...

24 November 2005

**Coexistence: European Commission Approves Compensation Fund for Denmark**

Conventional and organic farmers in Denmark can now expect to receive financial compensation if unintended mixing with GM crops on neighbouring farms should translate into ...

03 November 2005

**European Commission Gives Approval to 1507 Maize for Feed**

The European Commission has given the green light to another GMO. This time, GM maize 1507 was given approval for importation and for use as animal feed. The application for ...

## **Background stories provided by GMO-Compass**

### **Genetic engineering of cut flowers**

The times have changed - today roses were not simply yellow, red or white. By means of gene technology roses are now able to produce blue pigments. But this is not all: in labs around the world, designer cut flowers are being created with exceptional colours, with prolonged shelf-life, with added fragrances or with built-in frost protection.

### **Preliminary studies raise hopes: Golden Rice works well!**

Rice naturally contains only a negligible amount of beta-carotene, vitamin A deficiency is widespread in regions of the world where rice is a staple food. GMO Compass spoke to Ingo Potrykus, Prof. em., ETH Zurich who succeeded in 2000 in creating a rice cultivar that offers a metabolic precursor to vitamin A known as beta-carotene, the "Golden Rice".

### **GMO labelling of foodstuffs produced from animals – the discussion continues**

According to European law, the meat, milk and eggs from animals which have been fed with genetically modified feed need not be identified specially. The GMO labelling requirement applies only to products which have been produced directly from genetically modified plants. Consumers' groups and politicians repeatedly have criticized this legislation.

### **GM Crops in Australia – will the moratoria end?**

The cultivation of GM crops is banned in all Australian states except Queensland. However, moratoria will expire in New South Wales and Victoria next year. A report written on behalf of the Australian government now supports the commercial use of GM plants to promote competitive agricultural production. This has raised debate on the future role of GM plants in Australia.

### **International study: consumers would buy GM products**

Genetically modified foods have generated an intense debate in Europe and, as surveys demonstrate, consumer perceptions in the majority are negative. To test buying behaviours in a realistic setting, researchers conducted a practical experiment. The surprising result: the acceptance of GM foods is quite significant when they are cheaper than organic or conventionally produced foods.

### **GM plants no problem for the honey industry**

Honeybees play an important role as pollinators for many plants. They fly from flower to flower, collecting nectar and pollen without paying any attention to field boundaries. If genetically modified Bt maize is grown, bees will certainly come into contact with the GM plants. Is there any impact on the honey production as a result? Scientists in Bavaria (Germany) have been investigating this question in a number of experiments.

### **Are GMOs Fuelling the Brazilian Future?**

With the current rise in petrol prices, the use of crops for the production of bioethanol recently has attracted increasing attention. Brazil is one of the leading countries producing ethanol from the Saccharose of sugar cane. To further enhance the country's biofuel production, scientists are working on new GM plants to provide heightened sugar yields or other improved characteristics.

### **Yes to Biotech – No to GM Food**

A new Eurobarometer study on European attitudes to biotechnology reveals that most Europeans believe biotechnology will improve their lives – but a solid majority oppose GM foods. The latest figures add another piece of track to the rollercoaster of public opinion on GMOs in Europe.

### **Barley, Beer and Biotechnology**

Barley is an ancient crop that has been used for food and beer for millennia. Over the last decade, scientists appear to have succeeded at achieving several crop improvement goals with genetic engineering. Find out how scientists have enhanced barley's resistance to fungi and facilitated beer brewing. Field trials in Germany are underway, checking for unintended effects.

### **Farm Fresh Pharmaceuticals**

Biopharming, or using transgenic plants as pharmaceutical factories, is one of the most controversial applications of plant genetic engineering. Tight bioconfinement is crucial for keeping pharma-crops from mixing with food crops. Europe's cautious approach could be its key to success.

### **Study: GM Soy Dangerous for Newborns?**

Russian researcher Irina Ermakova recently disclosed findings pointing to alarming effects of GM soy on baby rats. Is this proof of a health risk for humans as Dr. Ermakova claims? Scientists complain that her findings are not peer-reviewed and unlikely.

### **Safety evaluation: GM peas in Australia show unexpected effects**

Do the findings confirm the effectiveness of safety evaluations for genetically modified foods and feeds? For critics, the results only prove that genetically modified plants are too unpredictable to reckon with.

### **"Plants for the Future"**

What lies in store for European agriculture? The European Commission set out a research agenda for the future of agriculture in Europe. The document recommends using genetic engineering to overcome new challenges foreseen for the next 20 years.

### **The western corn rootworm: Coming to a maize field near you**

A North American native, this major pest has been turning up in several European locales and is threatening to take a bite out of maize productivity throughout Europe. Genetic engineering has been used in the United States to develop rootworm resistant maize lines. Will transgenic maize be recruited in the fight against the rootworm in Europe?

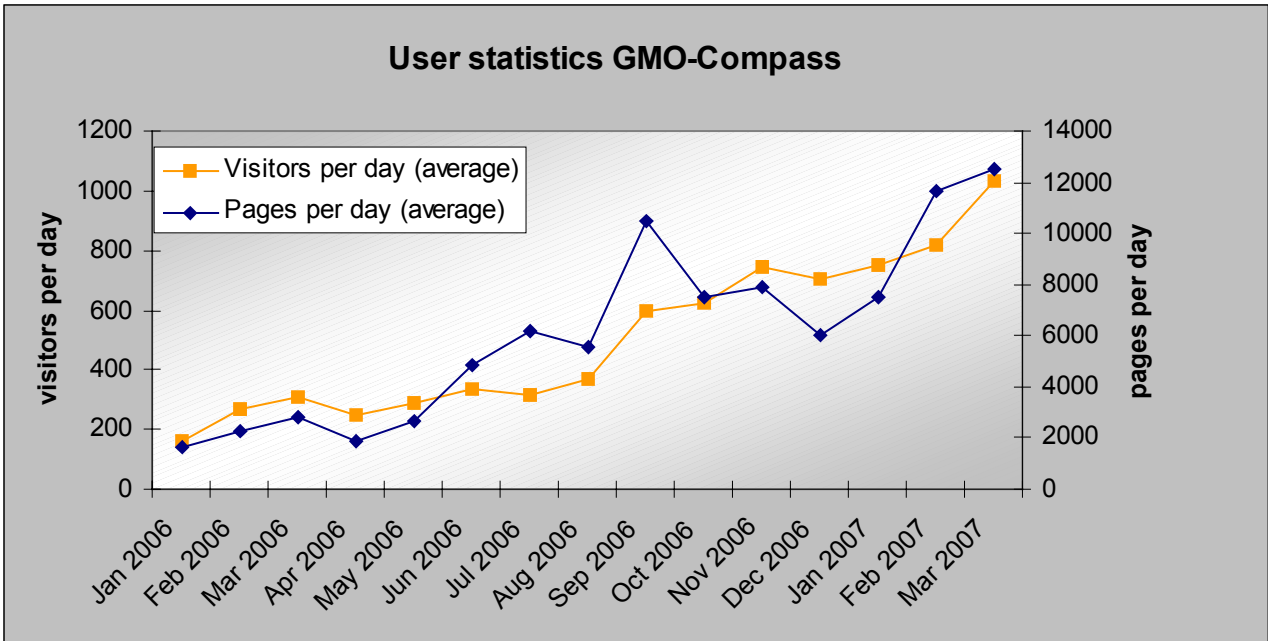


**Glossary terms provided by GMO-Compass website:**

ADI value	Corn Borer	Genetically Modified Organism (GMO)
Agar-Agar	Corn root worm	Genome
Agrobacterium tumefaciens	Delayed Maturity	Genotype
Alleles	Deletion	Glucanase
Allergen	diploid	Glufosinate
Allergy	DNA	Glutathione
Amino Acids	DNA methylation	Glyphosate
Ampicillin Resistance	DNA microarray	Haploid
Amylose, Amylopectin (starch)	Dot-blot hybridisation	Haploid breeding
Androgenesis	E. coli bacteria	Herbicide
Anitoxidants	EFSA	Herbicide Resistance (Herbicide Tolerance)
Antibiotic Resistance Gene	Electrophoresis	Heterologous Encapsidation (Transcapsidation)
Antibodies	Electroporation	Heterosis Effect
Antisense Technique	ELISA	Heterozygous
Arabidopsis (Thale cress)	Embryo	Histones
Arthropods	Emulsifier	Homologous chromosomes
Azo dyes	Emulsion	Homology
Bacillus thuringiensis (Bt)	Enzyme	Homozygous
Bacteriophages or phages	Epigenetics	Human Genome Project
Baculoviruses	Event	Hybrid; Hybrid Cultivar
Bases	Existing product	Hybridisation
Biolistic gun; Particle gun	Expression	Hydrogenation
Bolter	Fatty Acids	Hypoallergenic Food
Bt toxin	Fingerprinting	Immunglobulins (Ig), also: IgE Antibodies
Callus, also: microcallus	Fitness	In vitro
Carbohydrates	Flavonoids	Inoculation
Carotenoids	Food Intolerance	Insect Resistance
Celiac Disease	Fructan	Insertion
Chitinase	Functional Foods	Integration
Chloroplasts	Fungal Resistance	Inulin and Oligofructose
Chromosome	Gametes	Isogenic Line
Clone Library	Gene	Kanamycin Resistance
Coleoptera	Gene Construct	Lactose Intolerance
Complementary Herbicide	Gene locus	LD50 value
	Gene Pool	Lepidoptera
	Gene Silencing	
	Gene Targeting	
	Gene Transfer; horizontal and vertical	

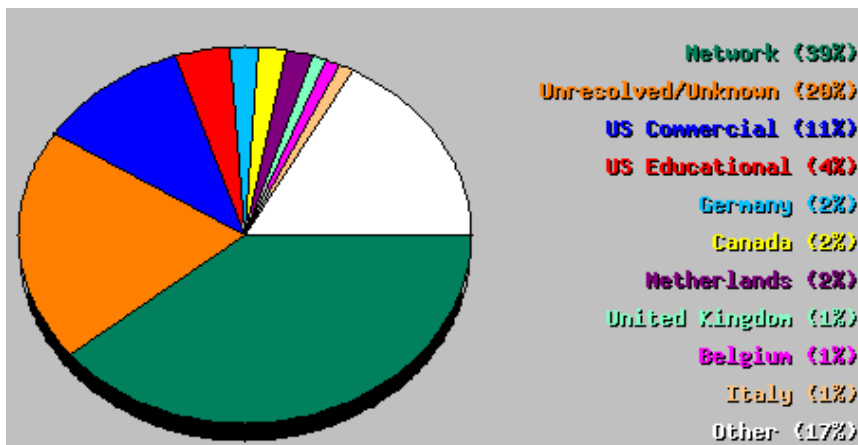
Lignin	Pleiotropy; pleiotropic effects	Starch
Marker gene	Ployploidie	Starch saccharification
Meristem Culture	Population dynamics	Stem Cells
Microinjection	Predators	Sterility
Microsatellites	Primer	Sugar Substitutes
Modification	Processing Aids	Sweetener
Molecular Pharming	Promoter	T-DNA
Monitoring	Proteins	Threshold value
Morphology	Proteome	Traceability
Mutagenesis	Protoplasts	Transcription
Mutation	Pseudoallergy	Transcriptome
Mycorrhizal Fungi	Rating	Transformation
Mycotoxins	Recombination	Transgene
Nematodes	Refining	Transient Gene Expression
Neophyte	Refugia	Translation
Non-target Organisms	Regeneration	Transposons / Transposable Elements
Novel Foods	Release	Trichogramma
Nuclear Transfer	Reporter Gene	Trypsin Inhibitor
Nucleic Acid	Restriction Enzyme	Unique Identifier
Oligofructose	Rhizobia, also: root nodule bacteria	Variety
Oligonucleotides	Rhizomania	Vector
Out-crossing	Rhizosphere	Viral recombination
Parasites and parasitoids	Ribosome inhibiting proteins	Virus resistance
Parcel of land	Ribosomes	Wild type
Parthenocarpy	Ribulose-1,5-bisphosphate carboxylase/oxygenase	Xenotransplantation
pat Gene	RNA	Zygote
Pathogenic	RNAi; RNA interference	
PCR; polymerase chain reaction	Ruderal sites	
Peptide	Running wild	
Phenotype	Saccharides	
Phenylketonuria	Segregation	
Phytopathology; phytopathogenic	Selection	
Phytophthora infestans, also: late blight	Sequence Analysis	
Phytoremediation	Smart breeding	
Plant secondary metabolites	Somaclonal Variation	
Plasmid	Southern Hybridisation	
Plastids	Splicing	

## User statistics of GMO-Compass



During the active period of the website (January 2007 – February 2007) the website was visited by approximately 250.000 users, who read about 2.610.00 pages on GMO-Compass. The visitor numbers significantly increased during the project period and reached an average of about 1000 visits per day in February 2007. The visitors came from a wide range of countries (approximately 130 different countries) within Europe and beyond (see figure and table below).

Figure: Countries of visitors (GMO-Compass)



**Table: Visitors of GMO-Compass: Top 30 countries**

#	Hits		Files		KBytes		Country
1	315592	39.44%	89232	21.50%	2787547	45.44%	Network
2	160679	20.08%	103662	24.98%	953615	15.55%	Unresolved/Unknown
3	89154	11.14%	69524	16.75%	922159	15.03%	US Commercial
4	29868	3.73%	20982	5.06%	146843	2.39%	US Educational
5	19683	2.46%	12581	3.03%	224600	3.66%	Germany
6	13576	1.70%	8865	2.14%	68256	1.11%	Canada
7	12049	1.51%	6504	1.57%	54323	0.89%	Netherlands
8	9936	1.24%	7324	1.76%	58044	0.95%	United Kingdom
9	9146	1.14%	5488	1.32%	51690	0.84%	Belgium
10	8925	1.12%	6789	1.64%	115031	1.88%	Italy
11	8863	1.11%	5555	1.34%	48085	0.78%	France
12	8770	1.10%	6541	1.58%	46707	0.76%	Australia
13	7993	1.00%	3751	0.90%	36405	0.59%	Hungary
14	5851	0.73%	3924	0.95%	33445	0.55%	India
15	5686	0.71%	3460	0.83%	28585	0.47%	Lithuania
16	4997	0.62%	3073	0.74%	30232	0.49%	Finland
17	4644	0.58%	2948	0.71%	30272	0.49%	Greece
18	4643	0.58%	3310	0.80%	25251	0.41%	Poland
19	4275	0.53%	1684	0.41%	21953	0.36%	Ireland
20	3987	0.50%	2058	0.50%	22563	0.37%	Croatia (Hrvatska)
21	3555	0.44%	2231	0.54%	17973	0.29%	Singapore
22	3471	0.43%	2526	0.61%	22306	0.36%	Sweden
23	3447	0.43%	1889	0.46%	19125	0.31%	Slovak Republic
24	3244	0.41%	1823	0.44%	15549	0.25%	Portugal
25	3189	0.40%	2246	0.54%	20450	0.33%	Austria
26	3025	0.38%	1760	0.42%	17892	0.29%	Japan
27	2947	0.37%	2194	0.53%	18206	0.30%	Switzerland
28	2902	0.36%	2043	0.49%	19072	0.31%	Slovenia
29	2884	0.36%	1524	0.37%	13668	0.22%	Spain
30	2732	0.34%	1281	0.31%	22312	0.36%	Moldova

## 2.2.2 Deviations

### Deliverable 4: Going online (website)

The launch of the website was delayed (M6 → M12) due to a change of the project managers (Sebastian Schulte left the company and was replaced by Christoph Löwer). On this account the project runtime was extended (February 2007).

### Deliverable List

Del. no.	Deliverable name	Date due	Actual delivery date	Nature	Dissemination level	Lead Participant No
D4	Going public (website)	6	12	O	PU	2

## 2.3 WP3 Online Discourse

### 2.3.1 Objectives and progress

*Responsible partners: Genius (as co-ordinator)*

*Scheduled date: 1st January 2006 – 30 June 2006*

*Actual date: March 2006 – October 2006*

*Deliverables: technical preparation and performance of the discourse*

*Estimated achievement: 100%*

On September 11<sup>th</sup>, 2006 GMO-Compass initiated an online discourse on “*The Future of GM Crops in Europe – Coexistence with Conventional and Organic Farming*”. On-line discourses serves as a means for gathering information and preparing for decision-making. They are to offer consumers a fair opportunity to express their needs and wants (information demands).

The discourse was limited to a timeframe of four weeks and ended on October 8<sup>th</sup>, 2006. To encourage debate, the team of moderators came up with three fictitious scenarios, all from the year 2016:

- 1. *Europe-wide ban on GM Food* – The European Parliament votes to completely ban GM food due to concerns over a series of allergies, some with serious consequences, to Bt-toxins, used to provide insect resistance in crops. In addition, many types of insects have developed resistance to Bt-toxins, leading to an increase in the use of pesticides. As there is barely any GM-free seed now available, the goal of a blanket ban on GM food will involve the production of GM-free seed at a high price.
- 2. *Organic agriculture and GMO coexist successfully* – The feared negative effects (e.g. [health problems like in scenario 1](#)) of GM crops are proven to be unjustified, while at the same time clear regulations dictating coexistence have been introduced: separation distances of 250m, compensation payments for organic farmers. GM crops are increasingly accepted by the public due to the development of high-yielding stress-resistant crop plants and their introduction in sub-Saharan Africa.
- 3. *GM plants found in all production processes* – GM crops are now used in all forms of agricultural production after any negative effects are disproved. Plus, the organic farming community has had a radical change of heart after seeing the advantages of genetic technology. EU governments have charged the Commission with repealing the old labelling regulations.

Each scenario was given its own forum, where participants could vote on the likelihood of these scenarios coming about (*very likely, likely, unlikely, very unlikely, not sure*) and post their own contributions to the discussion. A fourth forum was created to accommodate cross-thread issues and a metaforum provided space for comments on the online discourse itself.

## Results:

### Statistics

- Participants from 20 different (mostly European) countries took part
- contributing 106 posts in four weeks
- In sum, the online discourse had 428 registered users.
- 26.790 views has been counted in the four fora and 22 topic specific area, respectively.
- A clear majority of participants voted for scenario 2 as the most likely to occur, while scenarios 1 and 3 were considered unlikely.

### Summary of the key points raised

**Scenario 1: Europe-wide ban on GM Food** – In this case, it was less the main outcome, i.e. a complete stop on all agricultural biotechnology, that participants considered unlikely; rather it was the circumstances and conditions described in the scenario. Why should allergies to Bt-toxins suddenly occur in Europe, when the same resistance genes have been applied in other countries for years without any evidence of health risks? Moreover, participants expressed doubt that these side-effects would have remained undiscovered during the European Food Safety Authority (EFSA) approval procedure (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=6>). A thread developed discussing allergenicity identification, with one contributor reporting that a research group in the US has developed a new animal model that claims to test for allergenic reactions to GM food (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=6>).

The contributors also considered a rise in the use of pesticides as a result of increased resistance to be implausible in light of practical experience and data available at the current time (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=6>).

The majority of participants in this forum expressed the belief that the cultivation of genetically engineered crops was more likely to lead to environmental harm than health risks. In this context, the question “what constitutes environmental damage?” was discussed briefly. Most were in agreement that simply dispersal of transgenes would make no concrete difference (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=17>).

Participants also questioned whether all agricultural genetic technology should be banned simply because of problems arising in one specific area, in this case using Bt-toxins to create insect-resistant crops. Some contributors felt a targeted ban based on a case-by-case principle would be more likely, focussing only on those crop varieties that contain the relevant GMOs/transgenes (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=6>).

Some participants, however, did not rule out a total ban on genetic engineering in agriculture, albeit even without any significant health or environmental damage caused. Many authorities' communication policies came under fire during this discussion for being too quick to label as risky or dangerous certain incidents and results in the field of genetic engineering (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=17>). Participants were concerned that the media is all too quick to pounce on these stories, thereby unfairly influencing the public.

As well as the main discussion of the scenario, a range of other interesting topics were addressed in this forum. These included, among others:

- The discovery in US rice imports at that time of traces of transgenic LL601 rice - developed by Bayer-CropScience. This thread identified the problems that arise from the detection of unauthorised GMOs for which the authorities do not even have reference material, and discussed possible solutions (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=19>).
- The debate over coexistence: Are the regulations being called for by some groups too complicated and expensive? Most of the participants in this forum believed that to be the case, and agreed it is relatively easy to adhere to the 0.9% threshold level (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=16>).
- The significance of surveys: Do polls conducted in the EU allow for the interpretation that the majority of Europeans are against GM food? This thread looked at the difference between 'stated' and 'revealed' consumer preferences (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=21>), i.e. the possible discrepancy between consumers' aversive positions stated in opinion polls and their actual consumption behaviour and willingness to purchase GM foods.

**Scenario 2: *Organic agriculture and GMO coexist successfully*** – The scenario considered most likely to come about by the majority of participants. Some pointed out that scenario 2 is already reality in many countries around the world. This forum covered, among other topics, whether labelling should be mandatory or voluntary, and the issue of products made “with” and “from” GMOs: some participants believed that the EU’s labelling regulations are hypocritical, for example, cooking oil made **from** GM soybean must be labelled as such, not for health reasons (as e.g. with trace ingredient listings for people with an allergy to certain food products) but because of the consumer’s right to freedom of choice. However, this ruling does not apply to cheese, for example, that is produced **with** genetically modified micro-organisms (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=7>). This issue provided the background for discussion and was continued in the forum covering sub-topics, but with no concrete outcome.

An additional point that grew out of the debate was the cost of coexistence. As in scenario 1 forum many participants mentioned the long experience with GMO crops in countries like USA or Canada and assumed low costs to adhere to the 0.9% threshold level. However, others emphasised the fact that geographical fragmentation of agricultural fields in Europe will make it more difficult to carry out coexistence side by side and propose that farmers will have to organize in organic, conventional and GM zones. This debate goes further, dealing with compensation for organic agriculture (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=7>). The participants had differing views on the need to pay reparations to producers who require lower threshold levels for their products. While some did not cast doubts on the necessity of compensation for organic farmers, others expressed their view that compensation should not exist for those farmers who voluntarily accept contract risks for product specification that exceed the 0.9% threshold level.

**Scenario 3: *GM plants found in all production processes*** – The majority of participants considered this scenario unlikely because almost all believed (i) that the organic farming community would never perform such a U-turn on the use of GM crops, and (ii) that it was extremely unlikely that the majority of consumers or a European government would ever call for the



withdrawal of labelling regulations. On the other hand, some participants pointed out that animal feed and products from livestock farming are in their majority already GMO-products and therefore scenario 3 is actually already the case in most of Europe (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=8>).

Under the heading “Which kiss for the ecologist sleeping beauty?” participants expressed their doubt that the organic movement would ever accept GMOs, although some contributors said they would welcome such a development. This thread also dealt with the effect of transgenic plants on the environment and recent studies on the subject (<http://www.gmo-compass.org/online-discourse/viewtopic.php?t=37>). As part of the debate on labelling, some participants represented the view that, even if public acceptance of GMOs increases, so will the trend towards labelling, transparency and traceability. However, GMOs may by then no longer be seen as a “negative” label.

### Conclusion:

Most of those who contributed to the various topics in the online discourse were experts in the field. Perhaps “laypeople” felt deterred from contributing by the high standard of debate. However, the forums contain a multitude of interesting and well-researched contributions, in many cases listing important sources, publications and links, making a browse through a rewarding experience for anyone.

In conclusion, the outcome of and the high interest in the online discourse shows that such tools are highly suitable for fostering a serious, public debate on GMO topics and issues within Europe. We recommend for future online discourses also to consider more local issues such as the debate on GM free zones or local field trials. We believe that such topics would additionally increase the interest of lay person. According to experience, consumers tend to be more active, if they are directly affected by local topics.

### 2.3.2 Deviations

The online discourse (deliverable D5) was planned and organised mid of 2006. However, due to the different dates of the summer break, it was decided to perform the online discourse in September and October 2006. Different future scenarios were developed as a base of the discourse. The delay had no impact on the performance of this deliverable.

#### Deliverable list

Del. no.	Deliverable name	Date due	Actual delivery date	Nature	Dissemination level	Lead Participant No
D5	Going public (online discourse)	16	21	O	PU	1

## 2.4 WP4 Media Relations / off-line and on-line marketing

### 2.4.1 Objectives and progress

*Responsible partners: Genius*

*Scheduled date: 1 June 2005 – 31 December 2006*

*Actual date: 1 June 2005 – 28 February 2007*

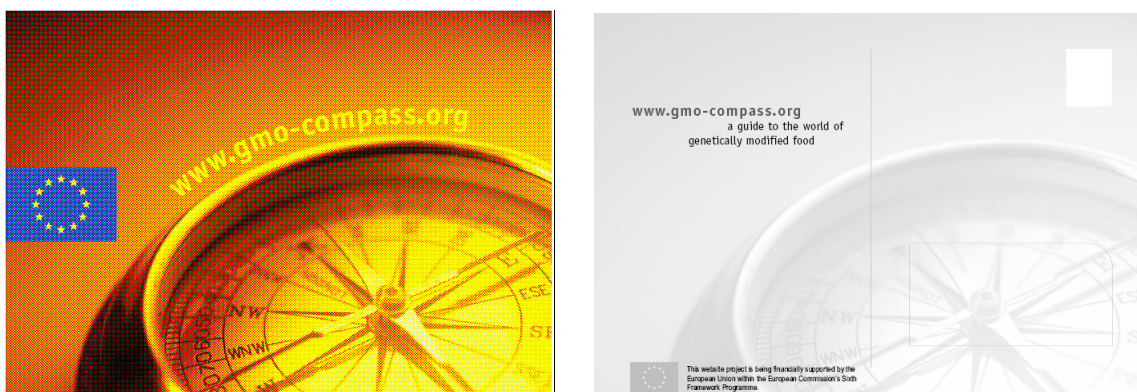
*Deliverables: off-line media sets, hits in daily press, number of content co-operations*

*Achievement: 100 %*

In the media, facts and backgrounds on the safety evaluation of GMOs often receive less attention than news and reports on potential risks. Therefore, it has been a central aim of GMO-COMPASS to initiate, support, and accompany an objective and clarifying coverage of topics associated with the safety evaluation of GMOs in the media. Content co-operations with consumer websites and systematic contacting of journalists had a high priority.

WP4 has regularly contacted writers and editors in the departments of science, business, and politics of daily published European media. Press releases via email were sent to journalists to attract high attention for the website (to 1840 German and 945 European journalists, 354 schools and teachers, 99 official governmental bodies). Press releases of GMO-Compass are presented in the Annex 1.

The invitation to the Online Discourse was sent out to more than 10.000 mail addresses throughout the EU, US, Australia etc. There was a close co-operation with biological societies and the Advisory Board who spread the invitation intensively. The website was introduced at the Vienna Conference on Co-Existence in February 2006 using the coloured postcards. These postcards have been in every conference bag (650 bags).



**Figure: Postcard for marketing of GMO-Compass**

An electronic newsletter (13 issues) supported the dissemination of information presented on the website (see Annex). The number of newsletter readers is at 720 at the end of the reporting period (see Annex 2: Newsletters).

Content co-operations: External websites (consumer websites, portals for news, science or special-interests, organisations, lobby groups) have received articles of GMO-Compass for the

implementation in their external website/newsletters. About 140 operators of information websites were contacted to provide links to the GMO-Compass website.

There was also intensive press work in Finland and the Netherlands which has not been quantified.

The work of WP4 has led to a high publicity of the website, which is reflected by the high number of webpages referring to GMO-Compass and the Google-Ranking of the website:

- PageRanking (Google): 5-6 out of 10
- External websites referring to GMO-Compass: 12.100 (Google search)
- External websites directly linking to GMO-Compass: 194

**Table: Country specific evaluation (selection); Number of webpages which are referring to GMO-Compass (Source: Google/Yahoo)**

USA and .com-sites	5.790
Belgium	374
Germany	363
Netherlands	223
UK	192
France	175
Italy	123
Canada	120
China	93
Austria	89
Slovenia	61
Finland	60
Switzerland	54
Taiwan	52
Poland	51
Denmark	41
Lithuania	40
Spain	36
Brazil	34
Ireland	34
Argentina	31
Australia	31
Hungary	22
Japan	21
India	20
Sweden	18
Russia	14
Turkey	9
Portugal	8
SouthAfrica	7
NewZealand	5
Greece	5
Luxemburg	4
Indonesia	3
Korea	2
Rumania	2
Norway	1

## **Examples of external resources referring to GMO-Compass**

### Consumer/information websites

- Dialog Gentechnik (Austria) - [www.dialog-gentechnik.at](http://www.dialog-gentechnik.at)
- Lohas Information portal (Germany) - [www.produkte.lohas.de](http://www.produkte.lohas.de)
- Biosicherheit (Germany) - [www.biosicherheit.de](http://www.biosicherheit.de)
- Mindentudas (Hungary) - [www.mindentudas.hu](http://www.mindentudas.hu)
- Gate2Biotech (Czech Republic) - [www.gate2biotech.com/](http://www.gate2biotech.com/)
- Transgen (Germany) – [www.transgen.de](http://www.transgen.de)
- Genfood (Germany) - [genfood.wordpress.com](http://genfood.wordpress.com)
- AQA (Assessment and Qualifications Alliance) (UK) - [www.aqa.org.uk/](http://www.aqa.org.uk/)
- Medications (international) - [www.medications.com](http://www.medications.com)
- StartAid (international) - [www.startaid.com](http://www.startaid.com)
- Was-wir-essen (Germany) - [www.was-wir-essen.de/](http://www.was-wir-essen.de/)
- Liste Hygiene (France) - [www.liste-hygiene.org](http://www.liste-hygiene.org)
- NWO-organisatie (Netherlands) - [www.nwo.nl](http://www.nwo.nl)
- GMOBlogs (international) - [www.blogcatalog.com/](http://www.blogcatalog.com/)
- BioTrin (Czech Republic) - [www.biotrin.cz](http://www.biotrin.cz)
- FBAE Blog (international) - [www.fbaeblog.org](http://www.fbaeblog.org)
- Genetic Maize Blog (USA, Iowa State University) - [www.geneticmaize.com/](http://www.geneticmaize.com/)
- Darwinslegacy- Blog (international) - [darwinslegacy.blogspot.com/](http://darwinslegacy.blogspot.com/)
- Google Directory Genetics (international) - [www.google.com](http://www.google.com)
- Wikipedia (international) – [en.wikipedia.org](http://en.wikipedia.org)
- AghroWeb Hungary / Corn Rootworm Facilitator Network (international) - [www.farmnet.eu/](http://www.farmnet.eu/)
- Save-Our-Spuds-Blog (international) - [www.saveourspuds.org](http://www.saveourspuds.org)
- Blogowogo (international) - [www.blogowogo.com](http://www.blogowogo.com)
- The Organic & Non-GMO Report (international) - [www.nongmoreport.com/](http://www.nongmoreport.com/)
- Bioteknologia.info (Finland) - [www.bioteknologia.info](http://www.bioteknologia.info)
- NW Rage (USA) - [www.nwrage.org](http://www.nwrage.org)
- MONGABAY.COM (international environmental science site) - [www.mongabay.com](http://www.mongabay.com)
- Answers.com (international) – [www.answers.com](http://www.answers.com)
- The Children's Museum of Indianapolis (USA) - [www.childrensmuseum.org/](http://www.childrensmuseum.org/)
- Organic Consumers Association (international) - [www.organicconsumers.org](http://www.organicconsumers.org)
- Agroportal (Portugal) - [www.agroportal.pt](http://www.agroportal.pt)
- GM free Ireland – [www.gmfreeireland.org/](http://www.gmfreeireland.org/)
- Conselho de Informações sobre Biotecnologia (Brazil) - [www.cib.org.br](http://www.cib.org.br)
- Environmental club 'Žvejonė' (Lithuania) - [www.zvejone.lt](http://www.zvejone.lt)
- GM-foorumi (Finland) - [gmfoorumi.fi](http://gmfoorumi.fi)
- France2.fr (France) - [forums.france2.fr](http://forums.france2.fr)
- Forum nutrition (France) - [forum.doctissimo.fr](http://forum.doctissimo.fr)
- Confagricoltura dell Emilia Romagna - [www.confagricoltura.org/](http://www.confagricoltura.org/)
- Information Centre for Genetically Modified (GM) Crops (Ireland) - [www.gmoinfo.ie/](http://www.gmoinfo.ie/)

### Newsletters and journals

- CheckBiotech (Switzerland) [www.checkbiotech.org](http://www.checkbiotech.org)
- SeedQuest (international) - [www.seedquest.com](http://www.seedquest.com)
- SPPS Newsletter (Denmark) - [www.spps.kvl.dk](http://www.spps.kvl.dk)
- GENET Archive (Switzerland) - [www.gene.ch](http://www.gene.ch)
- CropBiotechUpdate (ISAAA, international) – [www.isaaa.org](http://www.isaaa.org)
- AgBioView (international) - [www.agbioworld.org](http://www.agbioworld.org)

- Vermont Journal of Environmental Law (USA) - [www.vjel.org](http://www.vjel.org)
- European Federation for Information Technology in Agriculture, Food and the Environment (EU) - [www.efita.net](http://www.efita.net)
- Crop Protection Monthly (UK) - [www.crop-protection-monthly.co.uk](http://www.crop-protection-monthly.co.uk)
- Ellinghuysen (USA) - [www.ellinghuysen.com/](http://www.ellinghuysen.com/)
- Internutrition (Switzerland) - [www.internutrition.ch](http://www.internutrition.ch)
- The Organic & Non-GMO Report (international) - [www.nongmoreport.com/](http://www.nongmoreport.com/)
- EU politics today (EU) - [eupolitics.einnews.com](http://eupolitics.einnews.com)
- Lebensmittel-Zeitung (Germany) - [www.lz-net.de](http://www.lz-net.de)
- Nature (international) – [www.nature.com](http://www.nature.com)
- Trends in Plant Science (international) - [linkinghub.elsevier.com/](http://linkinghub.elsevier.com/)
- Aktuálne.cz (Czech Republic) - [aktualne.centrum.cz](http://aktualne.centrum.cz)
- Discovery channel (international) - [dsc.discovery.com/](http://dsc.discovery.com/)
- Oficina Agrícola, Embajada de Chile en Estados Unidos (Chile) - [www.agronoticias.net](http://www.agronoticias.net)

### Associations, NGOs

- German Biotechnology Association (Germany) - [www.dib.org](http://www.dib.org)
- German Association of Plant Breeders (Germany) - [www.bdp-online.de](http://www.bdp-online.de)
- GM-Watch (international) - [www.gmwatch.org](http://www.gmwatch.org)
- Belgian Biosafety Server (Belgium) - [www.biosafety.be/](http://www.biosafety.be/)
- Feed&Grain (USA) - [www.feedandgrain.com](http://www.feedandgrain.com)
- Irish Seedsavers (Ireland) - [www.irishseedsavers.ie/](http://www.irishseedsavers.ie/)
- Forest Protection Portal (international) - [forests.org](http://forests.org)
- EuropaBio (EU) – [www.europabio.org](http://www.europabio.org)
- BioPro (Germany) - [www.bio-pro.de](http://www.bio-pro.de)
- BiotechBrasil (Brazil) - [www.biotechbrasil.bio](http://www.biotechbrasil.bio)
- ISTA Online - International Seed Testing Association (international) - [www.seedtest.org](http://www.seedtest.org)
- The Campaign – Grassroots Political Action (USA) - [www.thecampaign.org](http://www.thecampaign.org)
- Deutscher Naturschutzring (Germany) - [www.dnr.de](http://www.dnr.de)
- EUFIC (EU) – [www.eufic.org](http://www.eufic.org)
- Verband der Ernährungswissenschaftler Österreichs (Austria) - <http://www.veoe.org/>
- Landwirtschaftlicher Informationsdienst Zuckerrübe (Germany) - [www.zuckerruebe.de/](http://www.zuckerruebe.de/)
- Save Our Seeds (international) - [www.saveourseeds.org](http://www.saveourseeds.org)
- Greenpeace International - [www.greenpeace.org/](http://www.greenpeace.org/)
- National Farmers Union (UK) - [www.nfuonline.com/](http://www.nfuonline.com/)
- Florigene (Australia) - [www.florigene.com/](http://www.florigene.com/)
- Monsanto (USA) – [www.monsanto.com](http://www.monsanto.com)
- Norwegian Bioindustry Association - [www.biotekforum.no](http://www.biotekforum.no)

### Ministries, universities, research projects and international organisation

- German Ministry of Agriculture and consumer Protection (Germany) - [www.bmelv.de](http://www.bmelv.de)
- UNESCO (international) - [portal.unesco.org](http://portal.unesco.org)
- College Mount Holyoke (USA) - [www.mtholyoke.edu](http://www.mtholyoke.edu)
- Co-Extra (EU) – [www.coextra.eu](http://www.coextra.eu)
- Umweltbundesamt (Austria) - [www.umweltbundesamt.at](http://www.umweltbundesamt.at)
- Interuniversitäres Forschungszentrum für Technik, Arbeit und Kultur (Austria) - [www.ifz.tugraz.at](http://www.ifz.tugraz.at)
- Swedish gene technology authorities (Sweden) - [www.gmo.nu](http://www.gmo.nu)

- GMO Africa (Africa) - [www.gmoafrica.org](http://www.gmoafrica.org)
- Centro de Informação de Biotecnologia (Portugal) - [www.cibpt.org](http://www.cibpt.org)
- EPSO (international) - [www.epsoweb.org](http://www.epsoweb.org)
- Biosafety Clearing House (international) - [bch.cbd.int](http://bch.cbd.int)
- EUSEM – EU Science Education Media (EU) – [www.eusem.com](http://www.eusem.com)
- EFSA (EU) – [www.efsa.eu.int](http://www.efsa.eu.int)
- Agricultural Biotechnology Council (UK) - [www.abcinformation.org](http://www.abcinformation.org)
- Hellenic Centre for European Studies (Greece) - [www.ekem.gr/](http://www.ekem.gr/)
- GDO Bilgi Platform (Turkey) - [students.sabanciuniv.edu](http://students.sabanciuniv.edu)
- Slovene Biosafety Portal (Slovenia) - [www.biotechnology-gmo.gov.si](http://www.biotechnology-gmo.gov.si)
- Australian Government - Office of the Gene Technology Regulator (Australia) - [www.ogtr.gov.au/](http://www.ogtr.gov.au/)
- CropLife international – [www.croplife.org](http://www.croplife.org)
- National Center for Genetic Engineering and Biotechnology (Thailand) - [www.biotec.or.th](http://www.biotec.or.th)
- Department for Environment Food and Rural Affairs (UK) - [www.gm-inspectorate.gov.uk](http://www.gm-inspectorate.gov.uk)
- Biotechnology Australia (Australian Government agency) - [www.biotechnology.gov.au/](http://www.biotechnology.gov.au/)
- Royal Tropical Institute (The Netherlands) - [www.kit.nl/](http://www.kit.nl/)
- Royal Netherlands Society for Agricultural Sciences - <http://www.klv.nl>
- National Defense University (USA) - [www.ndu.edu/](http://www.ndu.edu/)
- Canadian Biotechnology Advisory Committee (Canada) - [www.cbac-ccc.ca](http://www.cbac-ccc.ca)
- Information Systems for Biotechnology (USA) - [www.isb.vt.edu/](http://www.isb.vt.edu/)

## 2.4.2 Deviations

No deviations

### Deliverable list

Del. no.	Deliverable name	Date due	Actual delivery date	Nature	Dissemination level	Lead Participant No
D6	On-line and off-line marketing, content cooperation with consumer websites	6-24	6-24	O	PU	1

## **Section 3 – Consortium management / Internal and external communication**

### **3.1. Consortium management tasks**

The start date of the project was 1 January 2005. The project is administered and managed at Genius GmbH (Coordinator, financial administration).

Financial distribution between partners was performed according to the contract.

The kickoff meeting for the project presented a meeting of the consortium in Darmstadt, Germany, on 15 January 2005. In addition, an Advisory Board (AB) was inaugurated.

The internal communication and information flow was managed by an Intranet-Forum. Based on good experience from other joint projects - the operational management including coordination, internal communication and information flow (e.g. data, documents, reports) between all project members was facilitated by the establishment of an intranet-forum at [www.gmo-compass.org](http://www.gmo-compass.org). In this forum, all members placed their contributions, saved them in various stages of completion, reopen them for rework and actualisation, as well as coordinated them. In addition, the forum offered the possibility to transfer all kinds of relevant documents. Each WP-team including the local correspondents had access to the intranet.

#### **Consortium meetings held:**

- Darmstadt, 5th October 2004 (preparation meeting)
- Aachen, 20th October 2004 (contents)
- Conference call, 10th November 2004 (content management system)
- Conference call, 9th December 2004 (contract issues)
- Darmstadt, 15th January 2005 (contents, kick-off meeting)
- Darmstadt, 17th February 2005 (contents)
- Conference call, 4th April 2005 (content management system)
- Conference call, 5th April 2005 (contents)
- Conference call, 8th July 2005 (preparation of advisory board meeting)
- Darmstadt, 28th September 2005 (contents)
- Conference call, 15th September 2005 (contents)
- Conference call, 7th November 2005 (contents)
- Conference call, 12th December 2005 (contents)
- Aachen, 10th January 2006 (contents)
- Conference call, 24th January 2006 (contents)
- Conference call, 3th March 2006 (contents)
- Conference call, 7th April 2006 (contents)
- Darmstadt, 6th October 2006 (contents)

### **3.2. Contractors**

No change during the project

# Annex 1

## Press releases

### First of Its Kind Information Centre on Genetically Modified Foods Goes Online

As of January 23rd, 2006, European consumers have access to [www.gmo-compass.org](http://www.gmo-compass.org), a comprehensive online information centre for genetically modified foods. The English language website is the work of independent scientists, making it one of its kind in Europe. The project is funded by the European Commission.

The moratorium on new genetically modified organism (GMO) authorisations in the EU has come to an end, and in the future consumers will likely face more genetically modified (GM) products in supermarkets. GMO authorisations in the EU have been a source of controversy and have led to considerable public debate.

The European Commission is launching GMO-Compass to help consumers develop informed opinions on genetically modified food. To this end, the website offers explanations that are easy to understand to help demystify safety assessments. Unbiased, science-based background information will help foster informed debate on current issues in genetic engineering.

In addition, GMO-Compass offers users information about breeding aims, uses, and authorisation status for genetically modified crops in the EU. The "Regulation" tab provides users with an orientation to the EU's policies on labelling and traceability. A comprehensive glossary offers explanations clarifying technical jargon often used by molecular biologists.

In the future, the Europe-wide scope of GMO-Compass will be complimented by national reports from individual Member States. Local correspondents will communicate aspects of the GMO debates in specific countries and connect users with local research projects and relevant public institutions.

A moderated online discussion forum will be added to the website in mid-2006. Experts and consumers may use [www.gmo-compass.org](http://www.gmo-compass.org) to interact and contribute to the public debate on current issues in genetic engineering.

Genius GmbH (Germany), a specialist in science communications, is home to the GMO-Compass editorial office.



## **GMO-Compass Launches Online Discourse**

Darmstadt, July 27th. What will be the fate of genetically modified crops in Europe? What will it take to transform the idea of coexistence between genetically modified plants and conventional crops into a reality? GMO-Compass, the online guide to the world of genetically modified plants and food, is hosting an online discourse to get to the heart of these critical questions.

The online discourse, hosted at [www.gmo-compass.org](http://www.gmo-compass.org), will open its forum to the public on September 11th and will remain open until October 8<sup>th</sup>. All interested users are invited to share their comments, arguments, and perspectives regarding coexistence and GMOs.

The GMO-Compass editorial board, a team of independent science journalists, is launching the online forum to foster informed debate on GMOs and coexistence. As a catalyst for discussion, the editorial board is offering a series of potential coexistence scenarios accompanied with commentary from experts in the field. The future scenarios and expert views will serve as a foundation for responses from the public.

### **Registration begins in August**

Those wishing to take an active role in the online discourse can register for participation as early as August 8<sup>th</sup> by filling out a simple form, which will soon be available at [www.gmo-compass.org](http://www.gmo-compass.org). By entering your name, e-mail address, and if desired, institution, you gain a voice in a public debate among scientific experts as well as the interested public. E-mail addresses will remain confidential. Users simply wishing to read along may view the forum without having to register.

### **About GMO-Compass**

GMO-Compass is an independent online information source designed to give consumers facts on the potential risks and benefits associated with growing genetically modified crops. Funded by the European Commission, the site aims to promote informed debate on GMOs. At GMO-Compass, users can access the GMO database, which contains every GMO approval application submitted in the European Union. All available documentation on each GMO awaiting or granted approval is made available, including descriptions of ongoing or completed safety research. Users can also find information about where GMOs are planted, what benefits they can offer, what risks could be involved, how they are regulated, and what is being doing to enable their coexistence with conventional crops.

GMO-Compass – A guide to the world of genetically modified food

[www.gmo-compass.org](http://www.gmo-compass.org)

## **GMO-Compass startet Online-Diskurs**

Darmstadt, 27. Juli 2006. Wie sieht die Zukunft des Anbaus von gentechnisch veränderten Pflanzen aus? Wie lässt sich Koexistenz von konventionellen und gentechnisch veränderten Pflanzen in der Praxis realisieren? Zu diesen Brennpunkthemen startet GMO-Compass, das englischsprachige Internetportal mit umfangreichen Informationen zu gentechnisch veränderten Pflanzen und Lebensmitteln, Anfang September seinen ersten Online-Diskurs.

Der öffentliche Online-Diskurs findet vom 11. September bis 8. Oktober auf [www.gmo-compass.org](http://www.gmo-compass.org) statt. Interessierte können ihre Aussagen, Argumente und Sichtweisen rund um die Koexistenz in der Grünen Gentechnik in das moderierte Online-Forum einbringen, das aktuell von der GMO-Compass Redaktion realisiert wird. Da der Diskurs, wie auch die gesamte Website, für Verbraucher in Gesamteuropa konzipiert ist, wird die Diskussion in Englisch erfolgen.

### **Anmeldung ab Anfang August**

Wer nicht nur lesen, sondern sich aktiv am GMO-Compass Online-Diskurs beteiligen will, kann sich ab 8. August anmelden. Ein entsprechendes Formular wird unter [www.gmo-compass.org](http://www.gmo-compass.org) hinterlegt. Dabei ist lediglich die Angabe von Namen, Institution beziehungsweise Unternehmen und E-Mail-Adresse erforderlich. Diese Daten werden nur zur Registrierung verwendet und nicht veröffentlicht. Als Teilnehmerkreis angesprochen sind sowohl Fachleute als auch die interessierte Öffentlichkeit.

Die GMO-Compass Redaktion, ein Team aus unabhängigen Wissenschaftsjournalisten, will mit dem Online-Forum zur sachlichen Diskussion des Themas Koexistenz beitragen. Als Basis stellt sie zum Start des Diskurses verschiedene Zukunftsszenarien bereit, zu denen Meinungsbilder anerkannter Experten eingeholt werden. Daran können die Diskursteilnehmer mit ihren Beiträgen anknüpfen.

### **Über GMO-Compass**

GMO-Compass informiert Verbraucher umfassend über Möglichkeiten und Risiken gentechnisch veränderter Pflanzen. Das englischsprachige, unabhängige Internetportal wird von der Europäischen Union finanziert. Ziel ist, die wissenschaftlich basierte Debatte über gentechnisch veränderte Organismen (GVO) zu fördern. Die umfangreiche Online-Datenbank gibt einen Überblick über alle in der EU eingereichten Zulassungsanträge. Zudem ist die gesamte Dokumentation zu gewährten und ausstehenden Zulassungen dort hinterlegt - Fakten zur Sicherheitsforschung eingeschlossen. Nutzer können darüber hinaus recherchieren, wo GVOs angebaut werden, welche Vorteile sie bieten, welche Risiken damit verbunden sein könnten, welchen Regulierungen sie unterliegen und wie die Koexistenz zum konventionellen Anbau gewährleistet werden kann.

GMO-Compass – A guide to the world of genetically modified food

[www.gmo-compass.org](http://www.gmo-compass.org)

## **GMO-Compass Online Discourse: Coexistence of GMO**

Darmstadt, September 4<sup>th</sup> 2006. What will be the fate of genetically modified crops in Europe? What will it take to transform the idea of coexistence between genetically modified plants (GMOs) and conventional crops into a reality? GMO-Compass, the online guide to the world of genetically modified plants and food, is hosting an online discourse to get to the heart of these critical questions.

The online discourse, hosted at [www.gmo-compass.org](http://www.gmo-compass.org), will open its forum to the public next Monday, on September 11<sup>th</sup>, and will remain open until October 8<sup>th</sup>. The GMO-Compass editorial board, a team of independent science journalists, is launching this discourse to foster informed debate on GMOs, especially on coexistence.

### **2.2 Scenarios support the discussion**

As a catalyst for the discussion, the editorial board offers a series of potential coexistence scenarios accompanied by commentary from experts in the field. These scenarios will take us into the year 2016, describing three developments in agriculture:

- European-wide ban on GM-food after serious accidents
- Organic agriculture and GMO carried on successfully side-by-side
- GM usual in every kind of foodstuff

These future scenarios and expert views will serve as a foundation for responses from the public.

### **2.3 Registration on [www.gmo-compass.org](http://www.gmo-compass.org)**

Registration has started in August and will remain open till the end of the online-discourse on October 8<sup>th</sup> 2006. Those wishing to take an active role in the online discourse can register for participation by filling out a simple form, which is available at [www.gmo-compass.org](http://www.gmo-compass.org). By entering your name, e-mail address, and if desired, institution, you gain a voice in a public debate among scientific experts as well as the interested public. E-mail addresses will remain confidential. Users simply wishing to read along may view the forum without having to register.

### **2.4 About GMO-Compass**

GMO-Compass is an independent online information source designed to give consumers facts on the potential risks and benefits associated with growing genetically modified crops. Funded by the European Commission, the site aims to promote informed debate on GMOs. At GMO-Compass, users can access the GMO database, which contains every GMO approval application submitted in the European Union. All available documentation on each GMO awaiting or granted approval is made available, including descriptions of ongoing or completed safety research. Users can also find information about where GMOs are planted, what benefits they can offer, what risks could be involved, how they are regulated, and what is being done to enable their coexistence with conventional crops.

GMO-Compass – A guide to the world of genetically modified food [www.gmo-compass.org](http://www.gmo-compass.org).

## **GMO-Compass Online Discourse “Co-existence of GMOs”:**

### **Discourse starts next Monday, 11 September 2006**

**Darmstadt, September 8<sup>th</sup> 2006. What will be the fate of genetically modified crops in Europe? What will it take to make the idea of co-existence, between genetically modified plants (GMOs) and conventional crops, a reality? GMO-Compass, the online guide to the world of genetically modified plants and food, is starting an online discourse to get to the heart of these critical questions.**

The online discourse, at [www.gmo-compass.org](http://www.gmo-compass.org), will open its forum to the public next Monday, on 11 September, and will remain open until 8 October 2006. The GMO-Compass editorial board, a team of independent science journalists, is launching this discourse to foster informed debate on GMOs, especially on co-existence.

Results of the discourse will be summarised and published. We would like to see contributions from a broad spectrum of stakeholders, who share background information about this topic and express their specific attitudes regarding the future of co-existence in Europe. We thank contributors in advance for their participation.

### **Registration on [www.gmo-compass.org](http://www.gmo-compass.org)**

Registration is now open, and will remain open until the end of the online discourse on 8 October 2006. Those wishing to take an active role in the online discourse can register for participation by filling out a simple form, which is available at [www.gmo-compass.org](http://www.gmo-compass.org). By entering your name, your e-mail address, and, if desired, your institution, you gain a voice in a public debate including scientific experts and the interested public. E-mail addresses will remain confidential. Users simply wishing to read along may view the forum without having to register.

### **Scenarios support the discussion**

As a catalyst for the discussion, the GMO-Compass editorial board offers a series of potential co-existence scenarios, accompanied by commentary from experts in the field. These scenarios will take us into the year 2016, describing three developments in agriculture:

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These future scenarios and expert views will serve as a foundation for responses from the public.

### **About GMO-Compass**

GMO-Compass is an independent online information source, and is designed to give facts to consumers on the potential risks and benefits associated with growing genetically modified crops. Funded by the European Commission, the site aims to promote informed debate on GMOs. At GMO-Compass, users can access the GMO database, which contains every GMO approval application submitted in the European Union. All available documentation is made available on each GMO currently awaiting, or already granted, approval and includes descriptions of ongoing, or completed, safety research. Users can also find information about where GMOs are planted, what benefits they can offer, what risks could be involved, how they are regulated, and what is being done to enable their co-existence with conventional crops.

GMO-Compass – A guide to the world of genetically modified food

[www.gmo-compass.org](http://www.gmo-compass.org)

# Annex 2

## Newsletters

### GMO-Compass Newsletter Issue 1, 23/01/2006

Dear subscribers,

Today marks the opening of [www.gmo-compass.org](http://www.gmo-compass.org), the EU's new centre for information on genetically modified foods. We thank you for having shown interest in our website.

The authorisation of GMOs in the EU is a controversial topic of public debate. One of our goals is to promote transparency by explaining the safety assessment of GMOs and derived food and feed in the EU. In addition, we provide relevant, factual information on genetic engineering in a way that arouses interest and is easy to understand. By disseminating science-based information on GMOs, we aim to foster effective debate and encourage informed consumer choice. The following resources are among the features provided by GMO-Compass:

- A comprehensive databank containing entries for every genetically modified plant that has received or is awaiting authorisation in the EU. Users can access details such as authorisation status, the results of safety assessments, and rationale for final decisions.
- Up-to-date reporting on the latest findings of GMO safety research
- Cultivation statistics and breeding aims for GM crops
- Grocery shopping: Essential facts on how GMOs are used to produce the foods we eat each day
- A factual, in depth look into areas of concern for human health and environmental impact
- Labelling guide: When does genetic engineering need to be labelled?
- Coexistence: How do genetically modified plants fit into European agriculture?

#### Current Topics:

##### Study: GM Soy Dangerous for Newborns?

Russian researcher Irina Ermakova recently disclosed findings pointing to alarming effects of GM soy on baby rats. Is this proof of a health risk for humans as Dr. Ermakova claims? Scientists complain that her findings are not peer-reviewed and unlikely.

[http://www.gmo-compass.org/eng/news/stories/195.study\\_gm\\_soy\\_dangerous\\_newborns.html](http://www.gmo-compass.org/eng/news/stories/195.study_gm_soy_dangerous_newborns.html)

##### Safety evaluation: GM peas in Australia show unexpected effects

In late 2005, a private research institute in Australia, CSIRO Plant Industry, put a halt on the development of a genetically modified pea cultivar responsible for causing an immune reaction in laboratory mice. Opposing sides of the public debate have taken these findings in conflicting directions. Some say the Australian findings confirm the effectiveness of screening processes, while for others, the results only prove that genetically modified plants are too unpredictable to reckon with.

<http://gmo-compass.org/eng/news/stories/175.docu.html>

### **“Plants for the Future”**

What lies in store for European agriculture? The European Commission set out a research agenda for the future of agriculture in Europe. The document recommends using genetic engineering to overcome new challenges foreseen for the next 20 years.

<http://gmo-compass.org/eng/news/stories/177.docu.html>

### **The western corn rootworm: Coming to a maize field near you**

A North American native, this major pest has been turning up in several European locales and is threatening to take a bite out of maize productivity throughout Europe. Genetic engineering has been used in the United States to develop rootworm resistant maize lines. Will transgenic maize be recruited in the fight against the rootworm in Europe?

<http://dev.gmo-compass.org/eng/news/stories/190.docu.html>

Till next edition,

The GMO-Compass Team, Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

Comments? Contact us at [info@gmo-compass.org](mailto:info@gmo-compass.org)

## GMO-Compass Newsletter 2, 03/03/2006

Dear subscribers,

Thank you for your interest in GMO-Compass. We are constantly updating [www.gmo-compass.org](http://www.gmo-compass.org) to keep you up to date on the latest developments in the field of plant biotechnology.

The European Commission's Joint Research Centre (JRC) has just released a report on the feasibility of coexistence. In many circumstances, producers can grow GM crops without needing to adjust cultivation practices and still be confident that neighbouring conventional fields do not exceed the 0.9 percent threshold for labelling.

Quick summary: <http://www.gmo-compass.org/eng/news/messages/200602.docu.html#12>

Closer look: [http://www.gmo-compass.org/eng/regulation/coexistence/201.coexistence\\_is\\_possible.html](http://www.gmo-compass.org/eng/regulation/coexistence/201.coexistence_is_possible.html)

For the first time ever, a company has requested authorisation from the EU for a transgenic crop with enhanced nutritional value. The company Renessen LLC is seeking authorisation for its high-lysine maize, which should allow producers to cut-back on artificially supplementing livestock feed with lysine. Conventional maize does not contain enough lysine for optimal growth of poultry and swine.

Find out more: <http://www.gmo-compass.org/eng/news/messages/200601.docu.html#11>

Concerned about the environment? Let GMO-Compass explain how environmental safety concerns are being addressed. Get the facts on biodiversity, non-target organisms, and the potential for transgenes to linger in the environment.

Visit: [http://www.gmo-compass.org/eng/safety/environmental\\_safety/](http://www.gmo-compass.org/eng/safety/environmental_safety/)

Best regards,

The GMO-Compass Editorial Office

## **GMO-Compass Newsletter 3, 13/03/2006**

Dear subscribers,

Thank you for your interest in GMO-Compass. We are always updating [www.gmo-compass.org](http://www.gmo-compass.org) with the latest developments in plant biotechnology. Visit us often, and keep yourself informed.

On March 10<sup>th</sup>, the European Commission released a report on how the coexistence of genetically modified plants with conventional agriculture has been implemented in the Member States. Read about where coexistence in the EU stands today:

<http://www.gmo-compass.org/eng/news/messages/200603.docu.html#16>

The European Commission has completed its safety assessment of the amylopectin starch potato. The starch potato is likely to become the next genetically modified crop planted in the EU. Find out more:

<http://www.gmo-compass.org/eng/news/messages/200602.docu.html#13>

For the most part, foods in European supermarkets are not genetically modified. But that doesn't mean genetic engineering doesn't play a role in the production of the food we eat each day. Get an overview at GMO-Compass:

[http://www.gmo-compass.org/eng/grocery\\_shopping/processed\\_foods/26.docu.html](http://www.gmo-compass.org/eng/grocery_shopping/processed_foods/26.docu.html)

Until next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen



## **GMO-Compass Newsletter Issue 4, 31/03/2006**

Dear subscribers,

The vast majority of biotech crops grown around the world today are either herbicide tolerant, insect resistant, or both. This year, however, GMO regulatory agencies in Europe have been confronted with a new generation of genetically modified crops. In January, Renessen LLC submitted an approval application for a GM maize line with enhanced lysine content. In March, EFSA released a positive safety assessment for a transgenic potato with optimised starch content. Now, Syngenta Seeds has added yet another crop with altered composition to the list. It is seeking approval for a transgenic maize line with a heat stable version of the enzyme alpha amylase.

While high-lysine maize is intended for livestock feed and amylopectin potatoes are intended for industrial processing, amylase maize will be used for producing renewable energy. The novel amylase enzyme will remain active at higher temperatures, making it easier to produce ethanol from maize. Ethanol is an important biofuel that may be mixed with petrol at a ratio of up to five percent. Find out more at GMO-Compass:

<http://www.gmo-compass.org/eng/news/messages/200603.docu.html#18>

The use of antibiotic resistance marker genes has led to considerable controversy in the debate on GMO safety. Both high-lysine maize and amylase maize are free of antibiotic resistance marker genes. Find out why antibiotic resistance genes exist in some GMOs, what scientists think about their safety, and what alternatives are now available:

[http://www.gmo-compass.org/eng/safety/human\\_health/46.docu.html](http://www.gmo-compass.org/eng/safety/human_health/46.docu.html)

Until next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## GMO-Compass Newsletter Issue 5, 31/05/2006

Dear subscribers,

The 2006 growing season is bringing with it an expansion of commercial GM crop production in the European Union, along with a host of new field trials for GMOs with diverse traits. GMO-Compass gives you an inside look into what's new in 2006.

The development of transgenic plants to produce pharmaceuticals has been gaining steam in Europe. Field trials in France were carried out last year, and this year an outdoor site in Germany may be used to test transgenic potatoes expressing a therapeutic protein from the *Cholera* bacterium.

GMO-Compass reports:

<http://www.gmo-compass.org/eng/news/stories/205.docu.html>

Transgenic cereals aren't yet being grown commercially, but a number of field tests are suggesting potential. Biosafety tests in Germany with GM barely resistant to fungus and with improved brewing properties are now underway.

GMO-Compass reports:

<http://www.gmo-compass.org/eng/news/stories/203.docu.html>

At the last minute, the German chemical company BASF called off a field trial of its blight resistant potato in Ireland. Potato blight caused the catastrophic Irish potato famine of the 1840s.

<http://www.gmo-compass.org/eng/news/messages/200605.docu.html#27>

See the latest numbers on 2006 GM crop production in Spain, France, and the Czech Republic.

<http://www.gmo-compass.org/eng/news/messages/200605.docu.html#25>

Until next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## **GMO-Compass Newsletter Issue 6, 29/06/2006**

Dear subscribers,

The European Commission just released its latest Eurobarometer survey tracking European attitudes toward biotechnology. This latest edition is the 6th Eurobarometer on biotechnology since 1991. GMO-Compass explains the survey's findings and compares it with those of years past to paint a picture of how biotech and GMOs are perceived in Europe.

Find out more:

<http://www.gmo-compass.org/eng/news/stories/227.docu.html>

The food company Unilever recently submitted an application to UK authorities for permission to use a fish-derived protein to make low-fat ice cream. The novel food ingredient affects ice crystal formation making it possible to have ice cream with only half the fat.

<http://www.gmo-compass.org/eng/news/messages/200606.docu.html#32>

An Indian biotech company is currently testing its home-grown version of Bt cotton. The developers intend to undercut Monsanto's Bt cottonseed prices by 30 to 40 percent, which could be great news for India's cotton growers.

<http://www.gmo-compass.org/eng/news/messages/200606.docu.html#31>

Browse the GMO Database – it contains details on every transgenic event that is awaiting or has been granted authorisation in the EU. Exclusive to GMO-Compass, the database compiles the safety assessments conducted on authorised GMOs and lets you look into the files of the GMOs waiting in the authorisation pipeline.

Access the GMO Database:

<http://www.gmo-compass.org/eng/gmo/db/>

Until next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## **GMO-Compass Newsletter Issue 7, 24/07/2006**

Dear subscribers,

GMO-Compass continues to expand, now offering overviews of the latest goings-on with genetically modified crops in selected EU Member States. Find out where GM crops are being grown commercially or for field trials, and see what kind of coexistence rules are in place and more for Austria, Finland, Germany, the Netherlands, and the UK. More countries will be added to the list throughout the course of the year, complimenting GMO-Compass' otherwise EU-wide scope.

Take a look at some of GMO-Compass' country reports:

<http://www.gmo-compass.org/eng/news/stories/227.docu.html>

Starting on August 5th, GMO-Compass will make more details available regarding the website's upcoming public forum on coexistence that will take place starting on September 11th. The forum will link interested consumers with experts to foster informed, public debate on GMOs and coexistence.

In the news: The UK has just revealed to the public what it has in mind for a future with GM crops. The new report, which is now open to public comment, outlines a tentative coexistence scheme, leaving some aspects particularly open in order to let stakeholders and consumers have their say.

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#37>

Find out about how a Canadian biotech company intends to use GM safflower to meet the worldwide demand for human insulin – for at least 40 percent cheaper than the methods used today.

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#35>

Read about how the United States' latest census on agriculture reveals that even in the US, where the vast majority of soybean and cotton are already genetically modified, GM plantings found room to expand again in 2006.

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#34>

To find out what's new on GMO-Compass at any time, take advantage of the "New on GMO-Compass" function accessible from any page in the left-hand task bar. A list appears of the pages that have been added or updated over the last days and weeks.

See what's new:

[http://www.gmo-compass.org/eng/new\\_documents/](http://www.gmo-compass.org/eng/new_documents/)

Until next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## GMO-Compass Newsletter Issue 8, 31/07/2006

Dear subscribers,

Considering the novelty of plant genetic engineering, concrete facts on its long term effects have been difficult to come by. Recently communicated findings from researchers at Cornell University, however, have started to shed some light on this question – and the findings were quite surprising.

The research dealt with Bt cotton production in China, which has become widespread since the 1990s. What farmers didn't expect to experience were the downsides of dramatically cutting back on pesticide use. Secondary pests, which were once controlled by broad spectrum pesticides aimed primarily at the cotton bollworm, have since taken the upper hand. As this report makes waves in the biotech community, other stakeholders have spoken up, explaining that the Cornell study makes the situation look worse than it actually is.

Follow the latest developments on the recent findings on Chinese Bt cotton:

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#39>

Unlike Bt cotton in China, Bt maize produced in Spain continues to exceed expectations. The 53,000 hectares of GM maize grown in Spain in 2005 outperformed conventional maize by delivering better overall quality combined with higher yields.

Find out more:

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#38>

A recent decision by a French court forced Greenpeace to remove its online map detailing the exact locations of GM maize plantings throughout the country. Greenpeace claims it is a victim of censorship, and the group is not ready to give up the fight.

Read more:

<http://www.gmo-compass.org/eng/news/messages/200607.docu.html#40>

We apologise for including a misdirected link in the latest issue of the GMO-Compass newsletter. To access GMO-Compass' new country reports, click:

[http://www.gmo-compass.org/eng/news/country\\_reports/](http://www.gmo-compass.org/eng/news/country_reports/)

About the country reports:

GMO-Compass continues to expand, now offering overviews of the latest goings-on with genetically modified crops in selected EU Member States. Find out where GM crops are being grown commercially or for field trails, and see what kind of coexistence rules are in place and more for Austria, Finland, Germany, the Netherlands, and the UK. More countries will be added to the list throughout the course of the year, complimenting GMO-Compass' otherwise EU-wide scope.

Until next edition,

The GMO-Compass team, Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## GMO-Compass Newsletter Issue 9, 4 September 2006

Dear subscribers,

we kindly invite you to participate at our online discourse on [www.gmo-compass.org](http://www.gmo-compass.org) which will take place from 11 September until 8 October 2006. Please register at the website!

### **GMO-Compass Online Discourse: Co-existence of GMOs**

What will be the fate of genetically modified crops in Europe? What will it take to make the idea of co-existence, between genetically modified plants (GMOs) and conventional crops, a reality? GMO-Compass, the online guide to the world of genetically modified plants and food, is hosting an online discourse to get to the heart of these critical questions. The online discourse, hosted at [www.gmo-compass.org](http://www.gmo-compass.org), will open its forum to the public next Monday, on September 11th, and will remain open until October 8th. The GMO-Compass editorial board, a team of independent science journalists, is launching this discourse to foster informed debate on GMOs, especially on co-existence. Results of the discourse will be summarised and published.

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As a catalyst for the discussion, the editorial board offers a series of potential co-existence scenarios, accompanied by commentary from experts in the field. These scenarios will take us into the year 2016, describing three developments in agriculture:

- European-wide ban on GM-food after serious accidents
- Organic agriculture and GMO carried on successfully side-by-side
- GM usual in every kind of foodstuff

These future scenarios and expert views will serve as a foundation for responses from the public.

Registration on [www.gmo-compass.org](http://www.gmo-compass.org)

Registration began in August and will remain open until the end of the online discourse on October 8th 2006. Those wishing to take an active role in the online discourse can register for participation by filling out a simple form, which is available at [www.gmo-compass.org](http://www.gmo-compass.org). By entering your name, your e-mail address, and, if desired, your institution, you gain a voice in a public debate including scientific experts and the interested public. E-mail addresses will remain confidential. Users simply wishing to read along may view the forum without having to register.

### **About GMO-Compass**

GMO-Compass is an independent online information source designed to give facts to consumers on the potential risks and benefits associated with growing genetically modified crops. Funded by the European Commission, the site aims to promote informed debate on GMOs. At GMO-Compass, users can access the GMO database, which contains every GMO approval application submitted in the European Union. All available documentation on each GMO currently awaiting, or already granted, approval is made available, and includes descriptions of ongoing, or completed, safety research. Users can also find information about where GMOs are planted, what benefits they can offer, what risks could be involved, how they are regulated, and what is being done to enable their co-existence with conventional crops. GMO-Compass – A guide to the world of genetically modified food [www.gmo-compass.org](http://www.gmo-compass.org).

Until next edition, The GMO-Compass team, Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## GMO-Compass Newsletter Issue 10, 14 December 2006

Dear subscribers,

does genetically modified maize have an impact on beneficial insects? How does genetically modified oilseed rape affect pollen-collecting bees? How can transgenic pollen and seeds be prevented from spreading in the environment? These are just some of the questions being investigated in biological safety research worldwide. Answers and research findings, which are otherwise usually made public only at scientific conferences and congresses, are now available in English at [GMO-Safety.eu](http://GMO-Safety.eu)

The information portal was commissioned by the German Federal Ministry of Education and Research (BMBF) and over the recent years has become the central information hub for everything to do with biological safety research in Germany. In the future, the GMO-Compass Newsletter will keep you up to date with the latest findings.

GMO-Safety.eu: Transparency to biosafety research

<http://www.gmo-safety.eu/en/news/528.docu.html>

### **Further news on genetically modified organisms:**

The Standing Committee of EU environment experts conferred on the first approval for commercial cultivation of a genetically modified plant since 1998. Based on the safety assessment by EFSA, the European Commission had recommended approval. However, no qualified majority voted in favour of the new GM potato "Amflora".

No qualified majority for approval of GM potato "Amflora"

<http://www.gmo-compass.org/eng/news/messages/200612.docu.html#78>

The genetically modified rice LL601, which was found in US rice exports and European supermarkets without being approved anywhere in the world, has now receive marketing approval in the USA.

US Department of Agriculture deregulates GM rice LL601

<http://www.gmo-compass.org/eng/news/messages/200611.docu.html#77>

Researchers succeeded in removing a protein from cotton which made the plant inedible for humans. Seeds of the new GM cotton may now provide a new food source in many poor countries.

Scientist develop edible GM cotton

<http://www.gmo-compass.org/eng/news/messages/200611.docu.html#72>

More news on GMOs at

<http://www.gmo-compass.org/eng/news/messages/>

Until next edition,

The GMO-Compass team, enius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## **GMO-Compass Newsletter Issue 11, 19/01/2007**

Dear subscribers,

Yesterday, the new statistics of worldwide cultivation of genetically modified plants were published. In 2006, 102 million hectares of GM plants were cultivated - an increase of 12 million hectares compared with the year before.

GMO-Compass has provided a synopsis of the most important statistics on cultivation regions and on plant types:

<http://www.gmo-compass.org/eng/news/messages/200701.docu.html#86>

The above link provides access to original documents.

Browse the GMO Database – it contains details on every transgenic event that is awaiting, or has been granted, authorisation in the EU. Exclusive to GMO-Compass, this database compiles the completed safety assessments of authorised GMOs and lets you look into the files of GMOs waiting in the authorisation pipeline.

Access the GMO Database:

<http://www.gmo-compass.org/eng/gmo/db/>

until the next edition,

Your GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen



## GMO-Compass Newsletter Issue 12, 31/01/2007

Dear Subscribers,

It's hard to believe: ten years ago, compulsory labelling for genetically modified foodstuffs was introduced in the EU. On January 27 1997, the Novel Food Regulation was passed, outlining new labelling regulations applying to foodstuffs and ingredients derived from genetically modified plants.

Ten years of labelling, ten years of development: this means a decade of discussions on basic policy, coverage, implementation and manageability, but also ten years with almost no products which actually have been labelled. Repeatedly, the original labelling regulations have been changed, broadened and made more specific – and, in 2004, were reconceived in a fully new, and significantly stricter, regulation. Simultaneously, the worldwide cultivation area for GM plants increased in the past ten years from 1.7 million to 102 million hectares, mirrored by an increase in the application of GM microorganisms in the production of additives and enzymes.

Ten years of labelling in Europe: a lot of discussion, but few products.

<http://www.gmo-compass.org/eng/news/messages/200701.docu.html#88>

GMO-Compass uses the occasion to rework and redesign the 'Labelling' compendium – with examples and photographs.

<http://www.gmo-compass.org/eng/regulation/labelling/>

This must be labelled.

<http://www.gmo-compass.org/eng/regulation/labelling/51.doku.html>

These are the exceptions.

<http://www.gmo-compass.org/eng/regulation/labelling/88.docu.html>

In the production of 'bio' goods, the use of genetically modified organisms is prohibited. However, this does not mean that these goods are free from gene technology.

<http://www.gmo-compass.org/eng/regulation/labelling/260.doku.html>

Labelled Goods Hard to Find. The newly extended EU directive for labelling genetically modified foods has been in effect since April 2004. However - contrary to expectations - very little has changed throughout most of Europe. Labelling requirements were broadened significantly, but consumers nonetheless rarely find labels indicating the use of genetic engineering.

<http://www.gmo-compass.org/eng/regulation/labelling/92.doku.html>

Browse the GMO Database – it contains details on every transgenic event that is awaiting, or has been granted, authorisation in the EU. Exclusive to GMO-Compass, this database compiles the completed safety assessments of authorised GMOs and lets you look into the files of GMOs waiting in the authorisation pipeline.

Access the GMO Database:

<http://www.gmo-compass.org/eng/gmo/db/>

Until the next edition,, Your GMO-Compass team - Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen

## GMO-Compass Newsletter Issue 13, 28/03/2007

Dear subscribers,

Brazil is one of the leading countries in the production of bioethanol, mostly derived from the saccharose of sugar cane. To enhance further the country's biofuel production, scientists are working on new GM sugar cane plants to provide heightened sugar yields or other improved characteristics. GMO-Compass investigated the newest developments at

<http://www.gmo-compass.org/eng/news/stories/273.docu.html>

Further news on genetically modified organisms:

The European Commission has authorised the market placement for three oilseed rapes, covering their use for imports and their being processed into animal feed or for industrial purposes. The EU has also withdrawn approval for the marketing of five genetically modified plants.

New and expiring approvals for GM plants in Europe

<http://www.gmo-compass.org/eng/news/messages/200703.docu.html#104>

French farmers will cultivate significantly more genetically modified plants in 2007. Between 30,000 and 50,000 hectares of Bt-Maize will be cultivated in the upcoming season 2007 - compared to only 5,000 hectares the year before.

Marked increase of GM plantings in France

<http://www.gmo-compass.org/eng/news/messages/200703.docu.html#105>

In a new study funded by Greenpeace, a group of French scientists has raised doubts again about the food safety of the genetically modified maize MON863. The GM plant is resistant to the corn root worm and has been approved for cultivation in North America as well as for food and feed in the EU and in several other countries.

GM maize MON863: French scientists doubt safety

<http://www.gmo-compass.org/eng/news/messages/200703.docu.html#102>

More news on GMOs at

<http://www.gmo-compass.org/eng/news/messages>

Until the next edition,

The GMO-Compass team

Genius GmbH, Darmstadt; TÜV Nord Gruppe, Hannover; TransGen, Aachen