



2025 - Fields for Food or Fuel ?

*Europe's future in this increasing
global challenge*

INVITATION TO SUPPORT AND PARTICIPATE IN A
COLLABORATIVE FORESIGHT PROJECT

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by

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1. SETTING THE SCENE

Today global warming, sustainable energy and renewable raw material issues are daily headline news in every newspaper and news bulletin. Just recently, during his visit to Brazil, the US president reached an agreement with Brazil to boost the production of alternative fuels. With 17 billion litres of actual bioethanol production each, these two countries share 70% of the global bioethanol market. Any such formation of a cartel can have a serious repercussion on the Western world that already spends over 7% of its GDP on the import of petrol. This is the latest of many far-reaching developments that took place in the fuel sector over the last few years.

While everybody in the industry is 'working on it', each and everyone is playing his own ball game with very different goals and interests and thus the consequences of all this activity in the future are most uncertain, especially for Europe. With its recently declared target of 30% reduction on GHG emission, its biodiesel focus and environmentally-friendly technologies, will Europe be able to play a key role in this battle for the fields, as one country after another reveals its plan in the area of biofuels? Europe's new minimum target of 10% inclusion of biofuel by 2020 will more than absorb the 10% set-aside land and the ambitious plans of other countries will further raise the pressure on arable land availability. In addition other non-food sectors such as packaging and construction are increasingly demanding their own share of the agro industry output.

Hence, for Europe, as for the other countries as well, the key question is "How to balance the output from the fields as resources for both the food/feed and non-food industries?" Agricultural raw material supply and demand is bound to undergo deep and structural change in the future. Issues such as bio-engineering, security and safety of food supply, plant versus animal protein, natural resource preservation, energy efficiency and global sourcing will have a profound impact on societal values and norms and have serious consequences for the type and size of future economic value creation opportunities. The choice of using agri-industrial raw materials as a raw material source for products, food, feed or fuel will force many stakeholders to reposition themselves. Changing consumer awareness about these issues will also influence purchase motivations and create new opportunities and threats for many players.

Since these are worldwide issues, Europe and the key European players will need to have a global understanding and vision of the possible scenarios in the agri-based sectors, only then will they be able to conceive viable and sustainable strategies in this complex and highly politicised sector.

Is this massive change an opportunity or threat for Europe?

What are the different future scenarios for Europe?

These and other related questions are at the heart of the proposed scenario planning initiative which intends to bring together all relevant stakeholders from food and agri-industry, traditional and alternative energy, transport, green chemistry and recycling as well as authorities, public organisations, scientists and consumers.

Giract and WS have set out to explore this changing sector in a systemic, collaborative, innovative and structured manner by using scenario planning, a methodology that allows the exploration of the critical uncertainties about the future and to view how it might unfold in very different ways, providing deeper insight in driving forces, arguments and opinions.

2. PURPOSE, SCOPE & KEY ISSUES

2.1. PURPOSE

This collaborative project explores how the agricultural resources as raw material for both the food/feed, fuel and other non-food sectors might shape the European business, societal and regulatory environment in the global context over the next 20 years.

Relying on the disciplined scenario planning methodology, it investigates how a large number of stakeholders might react to this systemic change process.

The project envisages delivering a set of future scenarios, each reflecting how conflicting powers may interact to arrive at a new set of values and opinions that will define the role of agri-industrial raw materials and associated opportunities for value creation, in the European society 20 years from now.

Key questions driving the process are:

- How will the choice of using agri-industrial raw materials either as product, food or as fuel transform the future business and regulatory environment?
- What opportunities for economic, environmental and societal value creation will exist in Europe as a result of this vast and complex change?

This project is designed to provide a comprehensive planning context for strategic decision making by various actors:

- the industry, particularly agriculture, food, energy, fermentation and other agri-industrial product dependent players
- international governmental organisations, public authorities and policy makers
- civil society and NGO's

2.2. SCOPE

While the scope of this project is international and global, the focus will be on Europe. The participants will be from different groups of stakeholders –industry, international governmental organisations, policy makers, scientists and civil society – joining in a process of interactive and long-term scenario development. About 30 representatives from the following groups of stakeholders will be invited to the process:

- Agricultural producers and representative organisations
- Food and food ingredient industry (primary and secondary transformers)
- Other industries relying on agricultural raw materials (fermentation, biochemical, biotechnology, pharmaceutical, paper, etc.) and their associations
- Energy producers (traditional and alternative)
- Energy service providers
- Transport industry
- Waste and recycling industry
- International Governmental organisations (FAO, UNEP, UNCTAD, IEA, etc.)
- Government representatives
- Non-governmental organisations (environmental and social)
- Consumers and consumer protection groups
- Scientific community (biotechnology, engineering)

The intention will be to have an international perspective through representatives from various relevant geographic regions with main biofuels producing countries like Brazil, USA, EU, represented as well as some smaller and potentially new producing areas.

2.3. KEY ISSUES

These long-term future scenarios describe alternative logics of change in a vast, rapidly evolving and very complex field. The size and scope of change is likely to be very significant for many actors involved. These are some of the issues that will inform the future scenarios for Europe:

- Efficiency of food production
- Drivers for sustainable agriculture and its economic, social and environmental impact
- Societal reactions with respect to security of food supply, food sovereignty and fair trade
- Global insecurity and risk of food terrorism and the need to regain more self sufficiency in food supply
- Disrupting disease outbreaks that are particularly affecting agricultural output
- Rebalancing of land-use to accommodate food vs. fuel use.
- Competition for arable land for living, industrial, recreational and ecological uses
- Assessing real gains from biofuel production (agriculture, job creation, poverty)
- Evolving value of agricultural produce, impact on commodity markets
- Creation of new markets for biofuels, set-up of regulatory framework, potential role of labelling and certification
- The role of agriculture in the global community: globalisation and WTO agreements balancing world agricultural production and economy
- Country competitiveness for sustainable biofuel production
- Efficiency in biofuels production, impact (or not) of breakthroughs in renewable energy technologies
- Technical, economical and even political obstacles to a fast development of alternative energy generating and energy saving technologies
- Evolving value perception of energy, distance and time
- Biotechnology and genetic engineering and the two opposing world views in terms of risks and opportunities, confronting the established with the growing economies, and all potential impacts (economic, social, environmental)
- Boundary blurring between industries (energy, agriculture)
- Urbanisation of society versus rural and agricultural communities
- Realisation of global environmental change as a result the impact of human activity, impact of agreements (Kyoto protocol, etc) as change factor. Opportunities with CDM mechanisms.
- Consumer awareness of ecological issues as new motivators for consumer spending: a product's ecological footprint as purchase motivation
- Food diet (protein sources, obesity and health)

3. METHODOLOGY

Scenario planning is a disciplined and powerful methodology to help anticipate changes in the external environment. It makes explicit the uncertainty facing decision makers by developing a number of different future scenarios, each of which charts a plausible, coherent and challenging path of change into the future. The process starts with a collection of views and insights from a wide range of sources, including other existing studies and forecasts that recently have been developed on this subject.

The purpose of scenario planning therefore is not to predict the single most probable future but to let very different strategic alternatives inform decision-making today. It allows the evaluation of strategic options against the background of very different, but equally probable, futures.

Scenario planning is an interactive and creative process, benefiting from a diversity of perspectives. The approach is multi-perspective and non-normative: it is not about what stakeholders want to happen, but about what could happen. The result is deeper insight into the driving forces shaping the future. Scenario planning has been widely used to inform strategic decision-making in many different contexts, by corporations, public authorities and multi-stakeholder groups.

Participants of a scenario planning exercise experience that the outcome can help them:

- to notice and interpret signals from their environment in a more direct way
- to raise the awareness of an organisation, pointing to important and relevant issues with strategists or policy makers
- to foresee the long term consequences of strategic choices and to build more robust strategies
- to discuss otherwise difficult issues with third parties

4. PROJECT OUTLINE, TIMING & RESOURCES

4.1. SPONSORING PARTICIPANTS

The aim of the project is to provide an independent forum where all participants can discuss on neutral ground and as equal partners. The project organisers explicitly intend that the forum should not be a place for either lobbying or policy making, but for sharing and exploring stakeholder views.

To set up this forum, we are inviting a limited number of participating organisations to take a sponsorship role in order to make this event come true. It is the organiser's intention to have one sponsor of each of the 5 major industries concerned. In return these organisations may participate with up to 3 representatives in the scenario planning workshops. Please contact us (details on page 9) to learn more about how you can become one of the key sponsors.

Apart from gaining genuine insights into future issues possibly relevant to the organisation and/or its clients/members, the sponsoring organisations will also benefit from:

- The opportunity to have a one day presentation and discussion of the scenario work within the organisation and/or with a limited number of its clients/members. This will allow each organisation to raise specific questions on the impact and consequences as well as extend the number of people being exposed and immersed in these scenario worlds. Any travel costs will be charged separately.
- Being seen as a proactive player and as a catalyst for creating visions on the role of agriculture as provider of food and energy in the world. This will be emphasised on the website, in all publication following the completion and any public promotion of the results
- Enhanced international visibility in the renewable resource debate through broad distribution of the results via a summary brochure of the scenarios and an internet site
- High level interaction with senior representatives of stakeholder groups and experts who are not part of the normal organisation's contact network
- Having the opportunity to participate in more than one group when the various scenarios are developed in parallel by several break-out sessions
- Advising and recommending the selection of other participants and experts
- Possibility to create a nucleus of a new interdisciplinary team on this issue to proceed in the wake of the project

4.2. NON-SPONSORING PARTICIPANTS

In addition a wide range of other essential stakeholders, many of which would not be in a position to be sponsoring this project, will be invited to contribute to the debate. The aim is to have at least most, if not all, relevant stakeholders to be represented in the process, either directly through the presence of a leading organisation or indirectly through associations or other umbrella organisations. This will typically be the case for consumer representations and agricultural communities.

These organizations will be asked for a minor contribution to partly cover costs for travel and subsistence. Any additional specific expertise needed will be brought in by invitation of independent experts and/or academics.

Please contact us (details on page 9) – we will be more than happy to answer all your questions and provide you with any further information you may require.

4.3. SCENARIO PLANNING OUTLINE

The scenario planning is scheduled to start in Q1 of 2007. Elapsed time of the project is about 10 to 12 months.

Key elements of the process will include:

- Interview campaigns with a broad range of stakeholders and experts (Q2 2007)
- Three 2-day scenario development workshops (Q2 and Q3 2007), these may take different forms: creative dialogues, expert workshops or other types of participatory processes
- Desk and interactive research
- Intermediate reporting of every stage of the process
- Final Report (Q4 2007)
- Presentation of final report in sponsor organisations (sponsors and/or participants)

Deliverables are:

- Fresh insights in the future dynamics of a crucial issue for the business and policy environment
- A comprehensive planning context for subsequent strategic analysis and to identify consequent organisation-specific activities
- A report that consolidates the research and scenario development work performed over the course of the process
- A networking opportunity with representatives from other stakeholder groups
- Hands-on experience with scenario planning, an innovative methodology for strategic thinking

4.4. TIME COMMITMENT

Participants commit 6 full days to the process, excluding travelling time. This includes an interview session (1-2 hours) and participation in 3 scenario development workshops. For sponsoring organisations, one additional day is to be added for the presentation and the discussion of the results (if so desired).

4.5. WORKSHOP LOCATION

Workshops will be held in an easily reachable location, taking into account the global context and representation of the participants.

5. ORGANISERS

GIRACT, founded in 1970, is based in Geneva, Switzerland. It is the leading transnational consultancy in food ingredient strategy, market and business development. Its highly qualified and experienced partners are able to provide strategic insights to all aspects related to the ingredient business, from raw material to end-use technologies. Giract draws on a vast global network of privileged and high-level contacts in industry, academic and government sectors and has a multilingual and multicultural team bridging the differing European, American and Asian markets and cultures. Vast experience has been accumulated over 30 years of research and analysis, from additives and ingredients via fine chemicals and pharmaceuticals to associated technologies such as biotechnology, packaging, recycling, etc. Giract has supported high level strategic thinking processes for many key industrial players and therefore is a privileged partner with substantial insight on future thinking from a wide range of industrial perspectives. Giract's recent work on cereal supply options for central Europe, starch, sweetener and fibre markets as well as biofuel are of immediate relevance for this project. Giract also published the report on the Nutrition & Health 2020 scenario project. www.giract.com

Giract representatives will be:

- **V. Krishnakumar** B.Tech (Chem), MBA, Dipl. Computer Science: Managing Director and co-founder of Giract, obtained wide management experience in India (McCann Erickson and Beecham), has directed landmark studies including Starches, Mineral Fortification, Pro- and Pre-biotics, Polyols, Flavors, Hydrocolloids, Antioxidants and Emulsifiers.
- **Dr Jo Goossens** PhD Biochemistry/plant physiology, worked in R&D, marketing and business management positions for CPC, Cerestar and Eridania Béghin-Say. He managed strategic innovative projects such as erythritol and the start-up of Cerestar Japan. As Director of the Health & Nutrition Group, he created and managed the health ingredients business for Eridania Béghin-Say in Europe and USA. In 2002, he set up his own consultancy Bio-Sense and joined Giract as a Partner in 2004.
- **Maryline Guiramand** Agricultural engineer with an MBA from INSEAD. She has held different management positions in the food industry as well as in FAO. As Manager of the Sustainable Agriculture Initiative (SAI) Platform since its creation in 2002 in Geneva, she successfully expanded the food industry membership, developed best practices for cereals, coffee, dairy, vegetables and fruits and structured partnerships with key international institutions (IFC, CGIAR, OECD, etc). Since 2006, she now focuses on providing expert advice in the field of sustainable development and international trade in the agri-food sector.

WS is a Brussels-based organisation with extensive experience in scenario planning and scenario-based strategic processes. WS professionals have worked on four continents with clients such as Shell International Ltd, UCB Pharmaceuticals, Janssen Research Foundation, Heineken, Ondeo, The Japanese External Trade Organisation, The World Business Council for Sustainable Development, The Soros Foundation Network, The King Baudoin Foundation and others. Long-term strategic and multi-stakeholder project in the food and related industries include 'Animal Production and Consumption in the 21st Century' (King Baudoin Foundation, 2002-2004), 'Nutrition & Health 2020' (WS/Bio-Sense, 2003-2004) and the Nutrition & Health Open Innovation Lab (WS/Bio-Sense/Philips Design, ongoing). www.ws-network.com

WS representative will be:

Philippe Vandebroeck Engineer and Philosopher, he started his career as a research scientist at Shell and later held a position at the Vlerick management School in Belgium. He joined WS in 1996 as a managing partner and since developed his extensive generalist experience in project management, research, training and group process facilitation. With WS he has worked in a wide range of sectors, policy- and technology areas. He is particularly interested in applied systems thinking and its embodiment in innovative interventions and novel didactic concepts.

For more information:

www.fields-for-food-or-fuel.net

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Participants of the Nutrition & Health 2020 scenario planning project endorsing this type of approach:

Participating in the Nutrition & Health 2020 workshops was inspiring, mind-opening and definitely worthwhile. It is easy to believe that your company is at the centre of the universe. This kind of multi-stakeholder process underscores that this is a delusion by bringing a wide variety of other perspectives into the picture. Then you realise you are only a dot on a vast horizon! Furthermore, the key uncertainties underlying the developments in nutrition & health identified during the process may not be the ones you expected ...

John Jensen, Business Development Manager, Danisco A/S

I experienced the Nutrition & Health 2020 process as very stimulating. It was a unique opportunity to develop future scenarios about the impact of food-related illnesses on our society in collaboration with absolutely committed decision-makers from very different industries and backgrounds. It struck me that the impact of these food-related developments was much wider than I anticipated. This certainly helped to broaden my strategic awareness about these issues and it has fuelled nutrition & health-related discussions in our company.

Simone Hertzberger, Vice-President Quality Assurance, Albert Heijn BV

Participating in the Nutrition & Health 2020 workshops was a very inspirational and enlightening experience. It was in particular interesting to see how, through the professional workshop process, the different stakeholders from diverse areas such as food industry, university, European Union institution, medical and insurance, grow closely together as a group in creating this three possible future directions for N&H. Everybody started to see the bigger picture and realized the impacts from a social, political and economical point of view. It certainly provided me with a broader view of N&H and an in depth view of the characteristics and links of the various stakeholders as well as what the role of technology could be.

Marlou Kremer, Account Director Philips Design