



Dr. Rainer Wild-Stiftung
Stiftung für gesunde Ernährung



The Future of the Healthy Nutrition Market – Scenarios and Recommendations

A Working Paper

Joerg Mayer-Ries (Ed.)

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Cover photo: Chris Brennan – chris@unaesthetic.net

Editor: Joerg Mayer-Ries on behalf of IFOK and ForSociety

Design and layout: PR-Graphix, Karl C. Stahl, Heidelberg, Germany

Printed by: Gutfleisch und Frey, Eppelheim, Germany

Heidelberg, November 2007

Published by:

Dr. Rainer Wild-Stiftung, Foundation for Healthy Nutrition

Mittelgewannweg 10

69123 Heidelberg, Germany

www.healthy-nutrition.org

This working paper is available for download: www.healthy-nutrition.org

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A Working Paper

European Future Dialogue "Healthy Nutrition"
within the Framework of the ERA-Net ForSociety
February 2006 – June 2007



IFOK.



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Acknowledgement

This publication is a result of the work of the ERA-Net ForSociety, commissioned and funded by the General Direction of Research of the EU Commission. The editor would like to thank the EU Commission for its support.

The ideas and outcomes summarised in this publication have been elaborated during three workshops with European experts in the fields of foresight and nutrition. The editor would like to thank these expert groups for their engagement, contributions and discussions. The editor would also like to thank various members of the IFOK team involved in the workshop and writing process for their engagement, discussions and contributions. The final formulations, however, are developed by the editor.

The editor would also like to thank the Dr. Rainer Wild-Stiftung. Without its support the publication could not have been realised.

Preface

As Europe becomes more closely integrated, its markets also grow closer together. This development leads to major benefits and improvements, but also gives rise to problems that are comparable in most European countries. One current such problem is the link between unhealthy nutrition and social disparity – as highlighted by (over)weight and obesity data. Thus it appears that one important issue for the future of the whole of Europe is the feasibility of healthy nutrition for everyone.

Demand for healthy goods has been rising for years and this trend has also been prevalent in the food market. A rich variety of food groups that can all be subsumed under the umbrella “healthy” can be found – even though they might follow different concepts. Where will this development lead? How will the healthy food market be shaped in future? Which products will be generally accepted, which will be successful? What kind of consumer groups will market participants have to face? This working paper deals with these questions by providing three quite different scenarios.

The foundation is very well aware that every foresight is based on the present – and that in the end hardly anything will be as anticipated. Some things will develop faster than expected while some will never occur. However, foresight exercises can help to focus and decide on future research areas and topics. Thus, this working paper may be useful for all those actors who deal with the future of the healthy nutrition market, including researchers and scientists, food producers, politicians and other public or private decision makers.

We thank IFOK and the editor, Dr Joerg Mayer-Ries for their agreement to publish these results on behalf of the ERA-Net ForSociety group.

Dr. Gesa Schönberger

Dr. Rainer Wild-Stiftung, November 2007

Contents

Abstract	11
Introduction	13
ForSociety	13
Future Dialogues	13
The Topic of the Future Dialogue “Healthy Nutrition”	13
Outcomes and Implications	15
First Outcome: Change of Process Design	15
Second Outcome: Three written Scenarios	15
Third Outcome: Recommendations	16
Scenarios	17
Scenario I: Healthy Nutrition in 2025 in the Low-Price Market	17
Scenario II: Health as a Central Aspect and Purchase Decision Argument in the Higher Price Market	19
Scenario III: Healthy Nutrition and the cared-for-consumer	22
Recommendations for Research	24
On Foresight	28
The State of Foresight on Healthy Nutrition	28
Why use Foresight?	29
The Objectives of the Foresight Exercise	29
Methodology	29
Future Dialogue Process	32
The Procedural Design	32
Partners and Participants	34
List of Participants	35
Dr. Rainer Wild-Stiftung – Foundation for Healthy Nutrition	38
About the Editor	39

Abstract

This working paper presents the outcomes of a transnational foresight exercise on the topic of healthy nutrition market in 2025 that has been carried out by IFOK in the context of the ERA-Net ForSociety. Nutrition experts from various fields participated in three workshops and step by step developed three convincing future scenarios on healthy nutrition market. The scenarios each focus on a different aspect of healthy nutrition. The first scenario “Healthy nutrition in 2025 in the low-price market“ deals with the question of how healthy nutrition can be achieved if the trend towards cheap nutrition continues. The second scenario “Health as a central aspect and purchase decision argument in the higher price market“ assumes a higher differentiated market in which the consumer is quite aware and cares about health-improving aspects of nutrition. The third Scenario “Healthy nutrition and the cared-for-consumer“ pictures the nutrition industry as a genuine service industry that has to meet extremely high consumer demands with regard to time savings and health benefits. These scenarios provide the basis for the development of a future research agenda that should focus on the following questions: How can a future mass market for healthy nutrition be shaped from the supply side? What market and technology developments will shape the future? Which framework conditions and determinants enhance healthy eating and healthy lifestyles? What role does the consumer play in leading towards a healthy nutrition? How can education be designed and used as a strategy? What is the role of government in changing consumer behaviour? Which role do regional eating habits play? What are the transition trends of diets and peoples’ lifestyles in the future?

Introduction

ForSociety

The ERA-Net ForSociety is the European network of national foresight programmes. The aim of the ERA network is the co-ordination of national foresight activities and the development of substantive international co-operation on a number of selected foresight themes and strategic issues. 19 foresight programming institutions from 15 European countries are currently part of the ERA network.

The activities of ERA-Net ForSociety are a coordination action supported under the 6th Framework Programme of the EU.

Future Dialogues

A key element of ERA-Net ForSociety's project is to organise and implement multinational foresight exercises or so-called "Future Dialogues". The aim of a Future Dialogue is to demonstrate the feasibility of transnational foresight programmes.

Transnational Future Dialogues are outstanding pilot exercises on the way towards future joint, cross-border technology foresight programmes. They comprise different widely used tools in national foresight programmes, aiming to bring together experts from different sectors related to a specific issue or technology field, in order to combine their work and expertise. This means to bring together:

- foresight experts from different EU countries having worked on the national, regional or corporative level of foresight in a specific scientific/technological domain,
- scientific experts from different EU countries working in the public or private area with a strong future oriented perspective in specific scientific/technological area,
- policy makers of public or private bodies from different EU countries dealing with the set-up, management and implementation of foresight processes.

The Topic of the Future Dialogue "Healthy Nutrition"

The main focus of the Future Dialogue lies upon future opportunities of increasing quality of life through the optimisation of nutrition and food production, and through the use of innovative potentials in these fields.

The nutrition sector is notably transnational, in particular in terms of its structure and its governance. The future of nutrition at national level is influenced by transnational factors and produce transnational feedbacks. A number of European countries/partners are currently undertaking foresight exercises at national level on the future of nutrition

– albeit with some common and some different interests, foci and strategies. A transnational foresight process on the topic could add significant and relevant value to these national exercises and to foresight results and implications at European level.

In addition, healthy, affordable and sustainable nutrition, as well as nutrition for individual, social and economic wealth creation, are crucial challenges faced by European countries. In the context of a globalised knowledge society, new, interdependent developments in the agricultural, resources, industrial and service sectors are increasingly linked up with new social and consumer demands. This makes healthy nutrition a highly relevant and notably dynamic social and economic field. Key questions for the Future Dialogue and the identification of drivers and actors for the scenario building process, focussed on:

- how to avoid the increasing negative individual and social consequences of unsafe, unhealthy and unsustainable nutrition systems and behaviours,
- how to increase the innovative potential of different food value chains and attendant new technologies and economic patterns, and
- how to bridge the gap between innovative potential and knowledge held by producers and consumers on the one hand, and the lack of economic perspectives and sustainability for healthy behaviour in the nutrition field.

The aim of the Future Dialogue was to identify relevant shaping factors and actors in the technological, economical and social domains. The description of shaping factors enabled the discussion of plausible future directions for the field of nutrition. These proposed directions served as a basis for workshops – three in total held in 2006 and 2007 – which aimed to broaden transnational research perspectives and to formulate recommendations for the research policy design framework.

The outcomes of this Future Dialogue are presented in the following sections of this paper. They have been developed by experts that took part in the three workshops, following a specific foresight methodology. Please refer to the corresponding sections of this paper (pp 27 ff) for full information on the process design and methodology.

Outcomes and Implications

To list all outcomes of the Future Dialogue in detail would go beyond the scope and remit of this Future Dialogue report. Nonetheless two key outcomes should be noted here and a third will be referred to later on.

First Outcome: Change of Process Design

The first central outcome was the focussing of the scenario field from “The Future of Nutrition – Production, Consumption, Innovation” to “Healthy Nutrition” (as a part/segment of nutrition market) and the decision to undertake a transnational foresight exercise on nutrition rather than “simply” draw up a design for such an exercise. Though this represented a significant shift in objectives, undertakings and attendant outcomes, it still served the original aim of developing a robust design for a transnational foresight exercise.

Second Outcome: Three written Scenarios

Based on the second workshop another significant outcome of the exercise was the development of future scenarios. A scientific journalist was commissioned with writing these in German before they were translated into English for the purposes of the workshop. The scenarios detail three elements of the future of “healthy nutrition”.

The first scenario details the role of “healthy nutrition” and “healthy behaviour” in the low-price market. This is characterised by price-based competition and in which cheap, standardised products are sold. The implication of this for healthy nutrition is that it is a small add-on that plays almost no role as only a slight premium can be expected. The second scenario tells of a high-price and value market in which health benefits through food and nutrition are a central purchasing argument. Foods which indulge, foods which heal, foods which influence moods – all these are expected and enjoyed by consumers, who are willing to pay and for whom food is an experience. The third scenario picks up on one particular aspect of how the future market for food and nutrition may look like – the aspect of service provision in the market. With a consumer keen to enjoy a high level comfort, a wide variety of unique services have been developed.

These scenarios formed the input for workshop three and in a first step participants were asked to elaborate on them or highlight changes they wished for. The most notable outcome of the discussion was that scenario I was deemed the most likely, with the widest likely effects and where significant undertakings were necessary to ensure that

the potentially negative outcomes were avoided. Scenario II was seen to sit alongside scenario I, representing a different segment within the same market. In addition it was felt that the products and services on offer in this segment were of two sorts – one class of goods offered medicalised products with direct health benefits, the other class offered natural products, representing a part of a wider lifestyle choice characterised by social, ethical and environmental benefits. The element of innovation in scenario III was picked up on by participants and developed further to detail how the consumer would be cared for as desired.

Third Outcome: Recommendations

As for a third outcome based on the scenarios recommendations for action and research were drawn up for relevant stakeholders.

Scenarios

Scenario I: Healthy Nutrition in 2025 in the Low-Price Market

The low-price market is a mass market, selling large volumes of standardised goods to global, universal consumers all over Europe. It is dominated by only a few producers and retailers, competing against one another on the basis of price. Government regulation focuses on steering the market, in particular consumers, towards healthier choices and lifestyles.

Consumers in this market segment are **global consumers** – the need to save affects everyone, and so products are designed for everyone. This segment is made up of a surprisingly heterogeneous group of people for whom price is the key decision making determinant. Consumption in this segment is no longer limited to “time-rich-money-poor” or “time-poor-money-rich” consumers seeking to survive or unwilling to pay over the odds for basic staples respectively. Far more, this group of consumers is characterised by their poverty in a wide range of regards: they lack interest, money, education, knowledge and skills to consume healthily, to cook or to engage in behaviour beneficial to their health and wellbeing.

The **products** of this segment are mass produced and standardised – a “McDonaldsification” of food production has taken place. Products are standardised, modular and homogenous in their taste. Differentiation within this pan-European neutrality is achieved by means of adapting these basic “building blocks” to local, national tastes and flavours. Going hand in hand with this development has been a decline in the availability and variety of “basic” foods – unprocessed, raw ingredients as simple as flour. The social demand to buy rather than make one’s own food has spurred on this development, with the higher price of ready-to-eat foods justified on the grounds of the additional convenience they offer. The additional benefits of “value added” foods – food which claim to offer advantages such as being healthy – and their attendant higher price are only attractive to consumers if they do not require any additional effort and are not significantly more expensive, despite their claimed benefits.

Competition in the market is price-based and it is fierce. The high degree of product standardisation and the sheer volumes of production have led to a concentration of both the production and the distribution elements of the supply chain. A small number of producers ruthlessly chase the tight profits to be made whilst retailers are also acutely

aware of the importance of price and so are structured in a no-frills – and so low-cost – manner. Discount supermarkets dominate the retail interface, and can even dictate the production conditions thanks to their concentrated power. Though it can be argued that this limits consumer choice – an important aspect of the public debate – the concentrated power of retailers can also be a positive force. It can force changes beneficial to the consumer on producers, changes such as lower pesticide levels in foods.

Governmental regulation seeks to compensate for and steer against the tide of inaction and disinterest in a healthy lifestyle and healthy nutrition displayed by so large and diverse a group of consumers. This is not to say that such regulation is unchallenged or welcomed by all – public debate rages as to personal freedoms and market independence on the one hand, and the rewarding of healthy behaviour on the other. Where the boundaries lie are the subject of much debate, with valid arguments put forward on both sides. It can, however, be noted that in this market segment healthy behaviour is predominantly brought about, to a greater or lesser extent, by means of regulation. A raft of legislation exists to this end of encouraging healthy behaviour by consumers: from financial incentives for healthy eating habits, to taxation on sugars, from health insurance bonuses to compulsory shopping aides or advisors intended to further healthy choices whilst shopping. The costs of the negative impacts that unhealthy foods can have are included in their price – an important, if controversial, decision in times of rampant obesity.

In this market segment, **innovation** is concordant with the mode of production and the basis of competition. The costs of product innovations are difficult to recoup in a market with price-based competition and little if any product differentiation. As a result, innovation is focussed on increasing process efficiency and lowering price – on the further “McDonaldisification” of the market. Innovations beneficial to consumers trickle-down from the high-priced market segment, with innovations made there in the last 5 to 10 years eventually being enjoyed by consumers in this segment.

Scenario I is shown diagrammatically in Figure 1.

Scenario II: Health as a Central Aspect and Purchase Decision Argument in the Higher Price Market

Many people value their **health** very highly, often higher than material affluence and luxuries or career advancement. Health has become a new metaphor for quality of life. It has come to be realised that illness need not be a matter of fate but can be significantly influenced by lifestyle. Awareness about the importance of a balanced diet and physical exercise is put into practice. The food industry has developed specialised products and services for this consumer group as these additional benefits can be sold. The healthy profit margins which can be garnered here mean that many innovation efforts promise to bear financial fruit.

Within this market there are two distinct **segments**, one coined “medicalised” foods, the other “natural” foods. Medicalised foods are individual products which have been technologically modified for health reasons, whilst natural foods are ones with a low level of processing and high ethical, environmental, social, welfare etc. standards in their production. Each has a notably different customer base. Whilst **consumers** drawn to medicalised products are accustomed to the use of IT, thus offering producers the potential to include them in the innovation process and further improve and tailor product developments, they are also very receptive to advertising and “infotising”. The complexity of the issues underlying product choices from this segment and the level of knowledge necessary to make such decisions means that consumers, once drawn into this group, develop “education bubbles” and “trust communities” surrounding products and brands to help make consumption choices.

The second group of consumers identifies itself with natural foods, and is well educated in broader issues surrounding nutrition and healthy eating. Here consumption choices are seen to be lifestyle choices closely linked to personal politics and ethics. It can be said that this group shows aspects of post-materialist behaviour and choices.

Despite these notable differences between consumers in the two distinct segments in this market there are one or two aspects which hold true for both groups. Expectations as to the quality of groceries is high and by no means limited to such aspects as freshness, sensory perception or hygiene. These are considered matter of course. Consumers are more than willing to pay for additional quality – be it in the form of medicalised products or for natural, ethical products and production – and both groups show a willingness to pay a premium for the high identity value associated with consumption choices.

As mentioned above, **medicalised foods** are individual products which have been technologically modified for health reasons. These include functional and medical foods (foods with a targeted, single benefit for improved health e.g. folic-acid-muesli, multi-vitamin vegetables from the genetic laboratory, or St. John's wort snack bars or an anti-cancer beer!) or clean foods (foods modified to be free of allergens such as nuts, wheat or lactose). Such products reflect a demand for personalised, medicalised nutrition which tackles anti-age, anti-allergy, anti-obesity etc. by means of individual products.

The second value segment within this market is that for **natural food**. Here products fit into a broader healthy diet and form an important, identity-giving part of a wider lifestyle choice. Such products offer social added value through their purity, their organic production, their local sourcing, their respect of animal welfare in their production, their responsibility towards nature or their being fairly traded. This demand for nutrition with a social and ethical value is, like consumption choices for products of the other broad category, a lifestyle choice.

Between these two broad categories fall those products with an element of **social added value** but directed at consumers as individuals and as individual, stand-alone products. Though they offer benefits, these are not always health benefits. Into this category fall such products as nutricosmetics which offer beauty benefits, mood foods offering neuro-biological benefits that help regulate happiness, stress, anxiety levels etc., and sensual foods which make modified foods – low fat, low sugar etc. – taste just the same and have the same experience for the palate as their non-modified predecessors.

The **food industry** in this market is as separate as the two value segments it contains. Demand for medicalised foods is supply side and it is a strongly pushed market, with **innovations** fostered upon consumers by big industry. Innovations in medicalised foods are technological product innovations. Industry is keen to take advantage of the additional profits to be had through the health-consciousness of consumers and their attendant willingness to pay more for goods perceived to offer health benefits. In addition, innovation here is influenced by developments in other markets and areas such as in the field of biotechnology or in nanotechnology. Such influences have also given rise to co-operations between the food industry and industries such as the pharmaceutical and the cosmetics industries. Products in this segment are sold not only by conventional means, but also through special outlets targeted at this group of consumers.

The market segment for natural foods is strongly driven by demand side and innovation is driven by small- and medium-sized enterprises looking to lower production costs without compromising on quality or the high standards of production which allow them to charge a premium. Here too the distribution channels are tailored to the broader lifestyle within which consumers of this market segment see themselves.

The **regulatory framework** within which this market in its entirety finds itself is a fairly loose one. Intervention in the medicalised market focuses on assessing the consequences and implications of new technologies. Governmental information and education campaigns on healthy nutrition complement the product ranges offered by the food industry to consumers in a bid to help them consume more healthily.

For Scenario II please refer to Figure 2.

Scenario III: Healthy Nutrition and the cared-for-consumer

This highly competitive market is driven by both consumer demand and by the supply of special products and services. This focus on services for consumers is a key market driver given that they are directed at and tailored for the “cared-for-consumers”. Such consumers can be easily persuaded to consume healthy products – be that in the supermarket or when eating out – as long as they are relieved of arduous decision making needs or complex, time-consuming preparation work. Notable about this market is that it spans both the high-priced or value market and the low-priced market.

Consumers in this market segment are demanding. Such demands include time-savings, the reduction in choice or decisions for reasons of convenience, or the simplification of the preparation of food. Such demands arise, in part, from the more varied and less rigid eating habits and patterns of consumers. With the increase in single-households, people working free-lance or having non-traditional or irregular working patterns, such products and services fit in well with such lifestyles.

Product **innovations**, in particular innovations in services are driven by small- and medium-sized enterprises. These are quickly able to respond to consumer demands and, as a result, industry is a far lesser driver of innovation and developments. The market is comparatively low-tech. Though products may be lower-tech and innovations focussed on increasing the convenience of individual products, there are elements within the market with a notably high technology level. IT-related products are typical though not ubiquitous or dominant within the EU and IT technologies are to be found retailer and industry infrastructures.

Outlets within this market segment are varied and differentiated even if they are run by the same retailer. Groceries for example are sold via outlets targeted at particular trust communities or outlets are styled as health centres with different tailored service offerings for consumers.

The dominant services side of the **industry** which also drives demand is a far-reaching one covering a variety of service provisions from large, varied food centres to traditional canteens. Healthy catering has become obligatory in public eating places such as restaurants and canteens. Company canteens offer additional services including offers supporting healthy nutrition. The wide variety and diversity of commercial outlets reflects the size and importance of this market segment and consumers’ willingness to

pay a premium for such services. The supply-side logic is that consumers decide at that point in time to want that product or service and so are willing to pay a premium for the convenience of its immediate provision.

The public sector is of greater importance in this sector than it has previously been. In such establishments as public canteens, school and university canteens as well as in the eating establishments for public administration staff, the food fulfils a number of high standards for healthy nutrition. In taking this proactive approach to providing consumers with a healthy selection and thus steering their choice, the government has managed to ensure provision of one healthy meal for the lowest income groups. The improvements and benefits in public health can be seen and felt.

The realisation and implementation of the provision of healthy foods is only really possible with the help of public private partnerships, leading to a strengthening in the importance and role of consumer groups. Social innovations too come about through self-help groups or interest communities for groups such as elderly people or low-income families. Political involvement in this market has to tread a fine line in deciding how far-reaching and invasive regulation on encouraging healthy lifestyles and eating should be – to what extent can the consumer be disenfranchised from consumption choices and to what extent is a nanny state acceptable?

For Scenario III see Figure 3.

Recommendations for Research

Based on the scenarios described above recommendations for action and, above all, research were drawn up for the relevant stakeholders:

Research Programme for Strengthening Healthy Nutrition in 2025 from the Supply Side

As the mass market is of the utmost relevance, it is of crucial importance to foster and supply products, services and structures (outlets, canteens etc.) so that the bulk of consumers and the most typical consumers can eat in a healthier way. This includes consumers from lower income groups. The crucial question is how businesses (and specifically ethically and socially responsible businesses) can make money in this market? How can economic activities be supported in this regard?

Further research questions deduced from this scenario include:

How can a future mass market for healthy nutrition be shaped from the supply side?

- How to increase profits on healthy products and services in the low-price nutrition market which support the provision of a healthy life to low-income consumers?
- What are the incentives for industry to act in a manner that takes responsibility for the health of consumers?
- What are the options in particular for small and medium-sized enterprises (SMEs), representing as they do the majority of the supply side but with few resources for research and development (R&D)?
- Which knowledge is the most relevant for SMEs in this respect? How can this knowledge be transferred to SMEs?
- How will retailing and commerce develop? What is the future of retailers, which business models will they apply?
- What is the specific role of retailers in healthy nutrition?

What market and technology developments will shape the future?

- How will market segments develop? Which consumer groups participate in which market segment?
- How will emerge new nutrition technologies? How will new technologies alter market changes, distribution, consumption, living together?
- How healthy is organic food, in light of the controversial discussion between the scientific world and consumers/non-governmental organisations?

Research Programme for the Enhancement of Healthy Consumer Behaviour

A basic assumption of this research programme is the crucial importance of governmental action. A second crucial assumption is that healthy behaviour by consumers has to encompass not only buying healthy products, but also moving beyond the consumption of individual products towards a healthy diet and towards living a healthy lifestyle.

The research in this field has to be more interdisciplinary and systemic, the scientific discussion has to be enriched by societal aspects. The different perceptions of natural, social or behavioural science must be reflected and the societal context within which research and innovations take place is also of great import.

Further research questions deduced from this scenario include:

Basic questions

- Which framework conditions and determinants enhance healthy eating and healthy lifestyles? (in high- and low-price markets)
- What are the success factors for healthy systems of nutritional behaviour?
- SWOT analysis¹ of food chain approaches versus setting approaches to influence actors towards a more healthy nutrition.

How can healthy behaviour and healthy “eating out”-settings be enhanced?

- Which (social) settings are the most favourable to fostering healthy nutrition?
- Which factors determine the transferability of successful approaches from one setting to another in the prevention field? Comparisons of settings in different countries are needed.
- What are the costs for different catering systems: market costs, environmental costs, societal costs?
- How can healthy eating out settings (e.g. in the workplace), which are also economically viable, be created?
- What is the role of government in enhancing healthy consumer behaviour?

What role does the consumer play in leading towards a healthy nutrition?

- What competences do consumers have to ensure their own healthy nutrition?
- What options for action shape the role of consumers in the low-price market?
- How can such consumers be involved in innovation processes?
- How can health quality claims be strengthened in this market sector?

¹Strengths-Weaknesses-Opportunities-Threats-Analysis

How can education be designed and used as a strategy?

- What are the different roles of actors in healthy nutrition education?
- What is needed, besides information transfer, in the context of education? What is the role of emotional incentives for healthy eating cultures and lifestyles?
- How can the gap between nutritional knowledge, acceptance and action in a healthy way be closed?
- There is a need for explorative studies, how information gets implemented, by which channels and by what kinds of information flows.
- What is the relationship of advertising and other such forms of information? How far do forms of marketing/production information/advertisement influence healthy nutrition?
- How can intelligent packaging and signing be used for education purposes? What information is needed and how can it be made usable for households?

What is the role of government in changing consumer behaviour?

- Which instruments are preferable for moving consumer choices towards healthy nutrition?
- What are the relevant topics where government should be active and restrictive?
- How influence do legal frameworks at national and European level have on peoples' lifestyles? E.g. an analysis of evidence-based eating recommendations.
- How can healthy behaviour be fostered through legal and governmental incentives that are legal and practicable?
- What is the real outreach of governmental action? What new instruments (public-private-arrangements, corporate responsibility strategies etc.) are available? Comparative research on national differences is needed.
- What are good sets of government-consumer and government-industry relations? How can network (proper information lines) between politics and practical levels be established?
- Which control systems for risk-benefit are most effective (in regions)? How can traceability be implemented in food chains within globalised markets?

Research Programme on European aspects of Future Eating

Several research questions can be grouped by their general focus on the need for transnational and European comparative research, concerning data, strategies, basic questions, lifestyles, social settings and diets. The rationale for transnational research in the field of healthy nutrition is one of increasing importance since research cannot stop at national and regional borders with markets becoming increasingly transnational and global.

The underlying assumption is that there is a significant need for a European meta database/full information system. Most information is held by marketing organisations or industry. A meta database would show trends in different parts of Europe.

Further research questions deduced from this scenario include:

Basic questions

- Are the national/regional data comparable?
- What kind of information systems will be needed?
- How can data be gathered from marketing bodies or industry? Through the participation of enterprises in comparative research projects?

Collection and interpretation of European data or internationally comparable national data on

- risks of diets and risk perceptions/preferences building of consumers,
- nutritional actors, legal frameworks,
- consumer behaviour, regional eating habits and cultures, social eating settings,
- food trends, food compositions,
- social food services, facilities.

Which role do regional eating habits play?

- Are health issues related to diets or to something else? For example what are the reasons for the different obesity levels in children: eating habits or genetic dispositions? There is a need to analyse the relationship between regional diets/eating patterns and health risks, comparing genetic backgrounds and the compounds of regional diets.

What are the transition trends of diets and peoples' lifestyles in the future?

- How will daily life be organised? In which settings?
- What are the trends in diet? How will diet be in future?
- Which needs will shape the future of consumers? What would people like to have to help manage her daily lives (products and services)?
- What issues would help people to organise (without great effort) a healthy lifestyle?
- A comparison of the dilemmas of everyday life across countries.

On Foresight

The State of Foresight on Healthy Nutrition

Whilst there already exist a body of literature and studies into the issue of nutrition, including healthy nutrition, there nonetheless exist important deficits which this Future Dialogue sought to address. To date, foresight as well as research programmes or strategies on healthy nutrition have been primarily nationally oriented and have referred to national factors, trends and/or research consequences. Moreover, most of them have had a one-dimensional focus, either on technological or on socio-economical aspects such as:

- effects of ingredients on the human organism,
- perspectives of specific production technologies,
- developments of diets and nutritional diseases like obesity,
- consumer values and consumer behaviour.

Both transnational and multi-dimensional research strategy approaches can be found in the Institute for Prospective Technological Studies (IPTS) study *Reversed Food Chain – From the Plate to the Farm* (2002) and the recent paper of the European Technology Platform (ETP) “Food for Life” *Stakeholder’s Proposal for a Strategic Research Agenda 2006-2020* (2006). From a predominantly individual and consumers’ point of view both papers focus on the future development of food and food production. Thereby they include technological, economical and social-cultural dimensions as well as transnational factors and trends.

The Future Dialogue ties in with these papers by focussing consumers’ behaviour and demands as well as food chain (see Figure 4). In four relevant respects the Future Dialogue on healthy nutrition could add to these foresight exercises and contribute to national, EU and ETP discussions on future research and innovation:

1. Notion of consumer: In this approach, consumers are not only seen as individual actors but as various groups which act in specific social contexts.
2. Focus level: Beyond the foci on food products and food production the Future Dialogue asked for the development of actor groups, institutions and markets and its contexts as relevant aspects of healthy nutrition.
3. Multi-factorial perspective: The Future Dialogue was oriented towards both technological possibilities and social demands. It asked for possible future development paths in the field of healthy nutrition. On this account it explicitly considered the different trends by examining their possible interactions and interdependencies.

4. Holistic scenario-oriented approach: The aim of the Future Dialogue was to draw some scenario views and research roadmaps considering different possible future developments and uncertainties.

Why use Foresight?

The field of healthy nutrition is characterised as being a vast and highly complex field of challenges, in no small part due to its international structure and the complex interplay of so many stakeholders. Undertaking a foresight exercise in such a field offers orientation by means of taking a systematic, long-term view of the field. This, in turn, offers actors with a strategic interest in the topic the opportunity to develop research strategies and practical political action.

The Objectives of the Foresight Exercise

The original objective of the Future Dialogue was to establish the design of a transnational foresight in the field of nutrition. For this, foresight experts from across Europe were brought together so as to establish what had already been undertaken in the field and so as to develop a possible design for such a transnational foresight. The initial title of the Future Dialogue was “The Future of Nutrition – Production, Consumption, Innovation”.

Having established in the course of the first workshop and review phase that such a design could best be developed by means of actually undertaking a transnational foresight, the objective changed, as did the title and composition of participants. The aspect of nutrition identified by participants of the first workshop as of the greatest value and interest was “Healthy Nutrition”. Thus a Future Dialogue was undertaken on the scenario field “Healthy Nutrition” so as to describe the field’s possible futures, with a strong focus on the topic’s multinational dimension and its impact on other socio-political, technological, economic and cultural aspects. This objective included the description of:

- the future of healthy nutrition as a science, a culture and an industry,
- the future of the design, management and governance of such an industry and its attendant structures – including political and cultural ones,
- the impact and influence on developments in other areas such as education, media or biosciences on healthy nutrition and its development.

Methodology

The main objectives of the workshop process on “Healthy Nutrition” was to identify and to describe shaping factors and, in a second step, to formulated possible storylines,

including the corresponding developments of shaping factors. In a third step these formed the basis for research, policy and action implications for actors identified in the course of the scenario-building workshops.

Once the thematic focus of the Future Dialogue had been established by means of the first workshop, the activities were structured in the two workshops as follows:

Scope and scenario field:

The workshop started with a presentation of the thematic scope of the Future Dialogue.



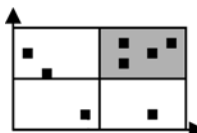
Identification of key drivers:

A first working step was to identify key drivers for the developments in the technological, economic, political and socio-cultural dimensions of the market for healthy nutrition.



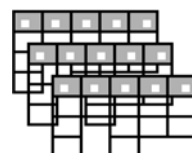
Selection of shaping factors:

The next step was the selection of key drivers along two axes so as to identify “shaping factors”: shaping factors are key factors with a high degree of impact and a high degree of uncertainty. Impact refers to the influence of the factor/actor on a field. Uncertainty refers to the occurrence probability of a characteristic of the factors. An uncertain factor could develop in a variety of different directions, whereas a certain factor will develop in only one direction.



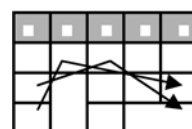
Deducing future developments of shaping factors:

In the discussion which followed, possible developments and characteristics of shaping factors (including actors and their strategies) were analysed: this led to the identification of plausible future developments for the market.



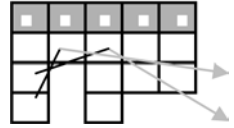
Creating imaginable storylines:

The next step was to link these characteristics of the shaping factors and to provide a meaningful framework for a possible future in the field of healthy nutrition. These storylines were then formulated into scenarios.



Impacts and Actions:

In the final workshop, the scenarios were examined for their validity and completeness, before being used as the basis for a final discussion on the challenges arising from the storylines and possible actions. These were then formulated into action, policy and research agendas for a variety of stakeholders identified as influential for a particular factor or development.



Future Dialogue Process

The Procedural Design

The workshops consisted of six constitutive phases:

1. **scanning**: mapping the foresight landscape so as to identify national and multinational studies on the field
2. **identifying**: identification of the scenario field (in the case of this Future Dialogue moving from nutrition to healthy nutrition)
3. **analysis**: identification and description of driving factors in the field
4. **storyline**: formulation of possible scenarios which will include the corresponding developments of shaping factors
5. **roadmap**: co-ordinating core competences with the main shaping factors, finding approaches for further developments, outlining a roadmap for activities
6. **conclusions**: drawing conclusions for research activities related to the European governance system

Preparation

The preparation of the first workshop consisted of

1. desktop research
2. analysis

These outcomes were then formulated in an input paper as preparation to the first workshop. Participants then gave feedback and completed an analysis of the foresight landscape, detailing what exercises had already been undertaken in the various countries, which trends and scenarios had been developed, which research agenda had been proposed and what linkages, omissions and transnational aspects had been identified.

Workshop I

The first workshop was held in February 2006 and was entitled “The Future of Nutrition – Production, Consumption, Innovation“. The aim was to prepare a transnational foresight process on nutrition and to identify fields and priorities of future research and innovation activities. Amongst the participants were ForSociety partners from the Czech Republic, Denmark, Finland, France, the Netherlands and the United Kingdom.

The first workshop was a key element for building the knowledge-base on current foresight interests, activities and results on nutrition in selected European countries. The workshop therefore identified common priorities and described, within these priorities, those issues where a more detailed foresight analysis is required and where a transna-

tional approach could deliver the most interesting insights. The results of the first workshop formed the basis for two further workshops attended by national and European stakeholders from science and administration.

Review

Having decided in the course of the workshop, that the design of a transnational foresight on nutrition could best be established by undertaking one, the review process also had the task of identifying which aspect of the field of nutrition was to form the topic and scenario field of the Future Dialogue. “Obesity”, “Innovation for Greater Diversity”, “Regional/Local Food Supply Chain” and “Nutrition, Diet, Cultures, Lifestyle” were four aspects of the field of nutrition of interest and import to the participants. In the course of the review, it was proposed and decided that “Healthy Nutrition” be the focus of the Future Dialogue, and plans for the next workshop were made accordingly.

Workshop II

The second workshop identified the transnational aspects of healthy nutrition and formulated future developments connecting these different aspects. Having prioritised these so-called shaping factors, connections between them were identified and storylines drawn up. This was undertaken by nutrition and health experts from different European countries, as well as a few of the foresight specialists who participated in the initial workshop.

Review

Following the workshop, three scenarios were written by a leading scientific journalist, highlighting aspects of how healthy nutrition might develop in future. Industry, economic, societal and political elements were all detailed in the scenarios which described different aspects of three possible markets.

Participants received these prior to the third workshop with the request that they review these for omissions and in preparation for discussions on actor groups to be held in the third workshop.

Workshop III

The third and final workshop, held in March 2006, invited the same experts and some additional stakeholders in the field of nutrition and health to elaborate on the scenarios drawn up following the second workshop. During the one-day event these European experts were asked to formulate some general research implications and identify actors for this.

Reporting

The outcomes of the third workshop – elaborated on scenarios and recommendations for action/research implications etc. – were drawn up and sent to the participants for review. The implications of the outcomes for the actors identified were of particular import and developed further by the participants.

Partners and Participants

The initial workshop with its original focus on drawing up a design for a transnational foresight exercise on nutrition was mainly attended by:

- Experts of research strategies and programmes from national ministries, including health and technology
- Foresight experts

With the change in objective following the initial workshop, the composition of participants was also changed so as to ensure that the relevant and qualified experts from the field of healthy nutrition provided input. The second and third workshops were, therefore, attended by:

- Experts on nutrition policy
- Experts from research and academia
- Experts from civil society and foundations, including consumer associations

These partners and participants were selected from all over Europe, thus fulfilling the aim of ForSociety to undertake transnational foresighting exercises and to provide a transnational dimension to this topic.

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Mayer-Ries, Joerg; Stroth, Ursula; Wollensack, Fiona; Zetzsche, Indre

IFOK GmbH – Institute for Organisational Communication, Berlin, Germany

Dr. Rainer Wild-Stiftung – Foundation for Healthy Nutrition

The Dr. Rainer Wild-Stiftung is committed to the promotion of healthy nutrition. Healthy nutrition used in the broader sense should mean more than counting calories or managing diets. The Dr. Rainer Wild-Stiftung believes that an understanding of the enjoyment and satisfaction of food is an important part of the dietary and nutritional landscape.

The foundation examines physiological, social and cultural influences on individual behaviour from a multidisciplinary perspective. It brings together research and practice, thus making a valuable contribution to current research into nutrition and the communication surrounding it. The foundation takes an international perspective and has established a pan-European network of scientists and researchers with the aim of promoting healthy nutrition internationally.

The foundation's work covers the areas of consumer behaviour, nutritional education, food and culture as well as food sensory science. The Dr. Rainer Wild-Stiftung seeks to involve food scientists, nutritionists and dieticians, social scientists, educationalists and interested lay people. It hosts conventions, symposia, workshops and tutorials and publishes textbooks, journals and booklets.

The Dr. Rainer Wild-Stiftung was founded in Heidelberg, Germany, in 1991 by Dr Rainer Wild, an entrepreneur in the food industry. It is an independent, non-profit organisation constituted under civil law.

About the Editor

Dr Joerg Mayer-Ries, born 1960, studied political economy, social and political sciences, and was research assistant at the Institute for Political Economy of the University of Oldenburg. In 1990 he moved to the Academy Loccum, as Director of Studies for the ranges economics, north south and environmental policy. He completed his scientific work at the Institute for Latin American Studies of the Free University Berlin with a doctoral degree in economics and political science.

Since 1999 Mayer-Ries was senior consultant and project manager at IFOK, the Institute for Organisational Communication working for private companies and public bodies in the fields of sustainable development, innovation, employment and organisational change. IFOK is a medium-sized private company with around 100 employees and offices in Berlin, Bensheim, Bruxelles, Munich, Düsseldorf and Washington. The areas of expertise of Mayer-Ries were foresight, research and innovation policy, sustainable development, regional development and network management. Within these fields Mayer-Ries was responsible project leader for the German foresight process “Futur” in behalf of the German Federal Ministry of Education and Research and organised within this dialogue process the expert panels on healthy nutrition, global change and knowledge production. Together with the German Federal Ministry of Education and Research he also represented Germany in ForSociety, the European ERA-Net for transnational foresight coordination. Within ForSociety Mayer-Ries was responsible for the future dialogues on “Healthy Nutrition”, “Biotechnology Innovation Networks” and “Industrial Water Management”.

In October 2007 Dr Joerg Mayer-Ries has moved to the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety as Head of Division on General Aspects of Environmental Policy and Sustainability Strategies.

Healthy Nutrition

Book series edited by the Dr. Rainer Wild-Stiftung



Bergmann, Karin,
München, Germany
(Ed.)

2002, Springer-Verlag
218 pp. 15 charts, 64 tabs., 20 graphs
978-3-540-42529-8
Hardcover. EUR 58,80

Dealing with Consumer Uncertainty

Public Relations in the Food Sector

The current practice of communication in the nutritional economy often produces significant uncertainty in a large fraction of the population. Efficient and comprehensive publicity by entrepreneurs on the industrial production of foodstuffs needs a new concept for communication between producers, processors, wholesalers, retailers, and end users. Without overgeneralizing, the author explains what makes the consumers uncertain and which consequences this uncertainty has for their nutritional behaviour. The main aim of this book is the empirical explanation of the connection between the uncertainty concerning the health value of industrially produced foodstuffs and the behaviour of consumers in relation to information. It shows how consumers currently perceive the publicity activities of the food industry and what their needs are as far as information is concerned. The practical consequences derived from the empirical results are comprehensibly described. The book is written for marketing and PR-specialists in the entire food sector, organisations on food safety, physician nutrition specialists, interested consumers, nutrition scientists.



Belton, P.S./Belton, Teresa,
University of East Anglia,
Norwich, UK
(Eds.)


2003, Springer-Verlag
182 pp., 4 illus.
978-3-540-43743-7
Hardcover. EUR 48,10

Food, Science and Society

Exploring the Gap Between
Expert Advice and Individual Behaviour

There is widespread concern amongst consumers about the safety and acceptability of food, and there are clearly communication gaps between consumers, many food professionals and food industry. This book offers accounts of the two-way nature of this difficult communication process and steps that can be made to bridge these communication gaps in a variety of social and cultural environments. Individual chapters of the book analyze the roles of science, culture, and risk perception, and of mass media and attitudes towards eating. An additional section describes the interface between scientists and lay people with regard to policy-making and agricultural practice.

The book is written for marketing and public relation specialists, the whole of the nutrition science sector, interested consumers, consumer protection organisations, nutritional scientists, and -doctors, dietary experts.



Considering healthy nutrition in 2025: How will the market be shaped? Which products will be generally accepted, which will be successful? What kind of consumer groups will market participants have to face?

This working paper documents three scenarios on the future healthy nutrition market, which have been developed in a transnational foresight exercise by nutrition experts from various fields. Each scenario focuses on a different aspect of healthy nutrition. The first scenario "Healthy nutrition in 2025 in the low-price market" deals with the question of how healthy nutrition can be achieved if the trend towards cheap food continues. The second scenario "Health as a central aspect and purchase decision argument in the higher price market" assumes a higher differentiated market in which the consumer is quite aware and cares about health-improving aspects of nutrition. The third scenario "Healthy nutrition and the cared for consumer" pictures the nutrition industry as a genuine service industry that has to satisfy extremely high consumer demands with regard to time savings and health benefits. These scenarios provide the basis for the development of a future research agenda. Thus, this working paper should be valuable for all those actors who deal with the future of the healthy nutrition market, including researchers and scientists, food producers, politicians and other public or private decision makers.