

# Trends in consumer preferences and food safety

## 1 Background – what is the problem, why is it a problem?

Food production, processing, distribution and consumption have major environmental impacts (e.g. high energy and material demand, emissions, endangerment and reduction of the biodiversity, increasing need of agricultural area) as well as serious social, economic and health implications (e.g. surplus production, high subsidies, concentration tendencies, farm dying, diet-related health risks, increasing obesity, hunger). From the perspective of sustainability especially the consumption behaviour of the people living in developed countries is problematic due to the increasing need of energy, agricultural area and other resources. Also worldwide the trend towards Western food consumption behaviour can be observed - including all implications for environment and health<sup>1,2</sup>.

Nevertheless, it may not be forgotten that worldwide a large part of human beings suffers from hunger or is affected by hunger and malnutrition and that only the minority of the total population is well nourished - with an increasing share of overweighty people. The intake of too much and too fat food, less physical activity and the resulting overweight increasingly cause the so-called diseases of civilization such as diabetes, cardiovascular diseases or gout. These diseases limit the quality of life and increase health system`s expenditures<sup>1,3,4,5</sup>.

Furthermore, technological changes along the food supply chain, structural changes and growth in large-scale retailing, as well as the expansion of trade worldwide have contributed to a rapidly changing market for food products. Thus, globalization of world markets has led to a significant increase in the variety of products available to consumers, which causes high competition between companies and regions. For consumers this huge product variety implies a plurality of options regarding food choice, ways of preparation, mealtimes and locations etc. On the one hand this allows an individualization of consumption behaviour, on the other hand this enhanced pressure also often arouses the desire for a reduction of complexity<sup>3,6,7</sup>.

In Europe food is perfectly hygienic, fresh and usually free of contamination loads and impurities. Although broad national and international legal regulations as well as high standards in processing companies contribute to safe and high-quality food, in the opinion of consumers food has a poor image anyway. They distrust producers and the high safety standards and react quite intolerant to food safety failures. Therefore food safety will continue to be a highly important issue for the food supply chain<sup>3,4,8</sup>.

## 2 What are current trends in consumer diet behaviour in developed countries and what are the reasons for these changes?

### 2.1 What are the reasons for changing diet behaviour

Societal changes like the ageing of population, the increasing entry of women into the labor force, the plurality of household and family structures (e.g. decreasing rate of marriages, increasing rate of divorces, decreasing birth rate, decreasing household sizes), the change to a multi-cultural society and the increasing polarization between poor and rich cause dramatic changes in the field of nutrition<sup>6,9,10,11</sup>. Additionally, an increased consumer awareness about the links between diet and health contribute to new demands for food<sup>12,13</sup>.

## 2.2 Current trends in consumer diet behaviour in developed countries

Trends in consumer diet behaviour can be classified by trends regarding food product categories (convenience food, calory-reduced and dietary food, functional food, novel food), trends regarding sustainable food products (organic food, ethic food, regional food), trends regarding alternative diets (vegetarianism, wholefood, raw food) and trends regarding the out-of-home-consumption (fast food, slow food, ethnic food). In the following the main trends of these categories (see brackets) are briefly presented.

### 2.2.1 Trends regarding food product categories

Convenience food is defined as ready-made, industrial-made food to shorten and/or facilitate the time of preparation. The increasing demand for convenience food is explained on the one hand with the saving of time and labor, on the other hand with the decreasing value attached to cooking. The constantly increasing product variety contributes also to the success of these meals<sup>9,14,15,16</sup>.

Calory-reduced and dietary food as well as functional food record also high increases of demand as they promise e. g. well-being and anti-aging. Besides, time and effort needed when using these products seem to be minimal. Furthermore, previous diet habits can be retained. Caused by the continuous health discussion and due to the increasing knowledge about the impact of different ingredients on health functional food, i.e. food with a special benefit for health and productivity (e.g. probiotic dairy products, bakery products or beverages with vitamins and mineral nutrients) is forecast an increasing demand<sup>6,15,17,18</sup>.

Genetically-modified products represent a special case of functional food, the so-called novel food. Before launching these products must pass an European licensing procedure. However, novel food products are rejected by most consumers. As reasons concerns regarding health, ecology, agricultural policy and ethics are indicated<sup>6,19,20,21</sup>.

### 2.2.2 Trends regarding sustainable food products

The demand for organic food increases continuously. Health considerations and food safety rank first among the buying motives. But also environmental protection, a controlled quality and the products` natural state are central reasons for purchasing organic food. The consumers of organic food are very interested in questions regarding diet and health and have time and appropriate skills for preparing these products. In this respect they differ from users of convenience food. But also in this segment pre-processed and processed food (so-called bio-convenience food) can increasingly be found<sup>6,15,20,22,23</sup>.

Similarly as organic food also ethic food fills a market gap. Usually these products are so-called Transfair products, on which special emphasize on ethical production conditions is attached. Although in the last years considerable turnover gains of fair trade products could be achieved, yet social responsibility via fair trade still seems to play a comparatively subordinated role for consumers<sup>6,15,24</sup>.

Standardization due to globalization as well as food scandals contribute to an intensified demand for regional food. These are products which have a clearly defined spatial and/or cultural reference for the consumer. Terms such as familiarity or relatedness play a large role. Also the typical taste of regional products caused e.g. by special climatic conditions or traditional production processes, take center stage. Additionally, important drivers of purchase are shorter routes of transport and the support of regional economic structures<sup>15,25,26</sup>.

### 2.2.3 Trends regarding alternative diets

Vegetarianism is the most important alternative diet and abstains from any killing of animals. The motives of vegetarians are predominantly ethical-religiously or health driven<sup>27</sup>.

Wholefood requires that the food is as natural as possible. This diet behaviour is affected by health and environmental concerns, the meals are usually vegetarian<sup>28</sup>.

Persons who eat raw food do not prepare it by cooking. Furthermore, they set high value on the natural state of the vegetable and animal food<sup>29</sup>.

### 2.2.4 Trends regarding out-of-home-consumption

Work related to nutrition, which was formerly done in private households, is more and more shifted outwards. That is to say that ever less is produced in the household and that on the contrary corresponding services are acquired over the market. In this context apart from the trend towards convenience food also the out-of-home-consumption gains importance, by which not only hunger is satisfied, but also social contacts are cultivated. Thereby, the trend regarding out-of-home-consumption veers towards a wide variety of products in the range of fast, slow and ethnic food<sup>6,15</sup>.

Fast food products have convenience-qualities, as they can be eaten not only fast, but also from hand to mouth. Beside the classical convenience restaurant chains recently also many smaller, mostly foreign suppliers were established<sup>30,31</sup>.

A kind of countermovement to fast food represents slow food. This movement is committed to reviving the regional culinary cultures and traditions as in its opinion the structures of the “fast life” are not only responsible for an adjustment of taste habits, but also lead to the loss of regional diversity with the consequence of a worldwide standardization or rather a global standardized culture. Beside the aspect of taste also health and ecological benefits are important within the context of slow food. Furthermore, the healthy tardiness when eating and the high quality of regional products are propagated, whereby the needs of many consumers for authentic and safe products as well as a transparent production process are fulfilled<sup>6,32</sup>.

With ethnic food the offers within the range of out-of-home-consumption fulfill also the increasing desire of many consumers for diversification. While the classical foreign cuisine already belongs to everyday life, in particular (Far)-Eastern and South American dishes are in advance<sup>13,15,33</sup>.

## 3 What are the political targets and strategic elements?

In order to face the above mentioned problems and trends the European Commission introduced the European Technology Platform (ETP) “Food for Life”. The vision of this concept is “that an effective integration of strategically-focused, trans-national, concerted research in the nutritional-, food- and consumer sciences and food chain management will deliver innovative, novel and improved food products for and to national, regional and global markets in line with consumer needs and expectations”<sup>34</sup>.

In order to achieve these objectives, ETP “Food for Life” has identified some major challenges. The first is to guarantee that for consumers the healthy choice is the easy choice. As food and drinks bring pleasure to the consumer and, if consumed in the right amounts, they can contribute a lot to the well-being and health of European citizens. Consumer trust in food is also seriously important. The objective of this challenge is therefore to enhance the

understanding of consumer behaviour and to ensure that food products comply with consumer demands for nutrition, health and pleasure. Furthermore, a healthy diet has to be delivered. Therefore, it is paramount to develop new and effective food-based strategies to optimise human health and to reduce the risk of diet-related diseases. To improve daily quality of life, a new food concept is needed including nutritional value, emotional values of taste and convenience as well as food safety. In addition, the concept of “food quality” in Europe has changed significantly over the years as from the basic availability of food, via uniformity, food safety and production circumstances, food is now increasingly associated with enjoyment, health and well-being. Continuous changes in society and demographic trends (see above) will dramatically influence the way in which food will be prepared and where it will be consumed. Thus, for the European food industry it will be a challenge in the future to offer the consumer the right type of food at the right time and in the right place. Innovative processes, value-added products, new marketing concepts, new ways of selling products and for the production and supply chain to co-operate in order to create products targeted at consumer needs should all ensure that the consumer is provided with safe products possessing the required taste characteristics at maximum convenience and at an affordable price. Modern technology can have an important influence in increasing the availability and affordability of food. The 4<sup>th</sup> challenge deals with the topic food safety. Although food in Europe is safer today than ever, the industry and the responsible institutions were not able to gain and retain the consumers` trust. As food safety is essential for the competitiveness of the European food industry a major objective is therefore to develop and promote an integrated approach to food safety that embraces the complexity of the food chain, consumer concerns and trust, lifestyles, globalisation and competitiveness. A further objective addresses the achievement of a sustainable food production as consumers are more and more willing to buy food that complies with environmentally-friendly and ethical production criteria. In order to reach this objective, synergies must be created between economic growth, environmental protection and fair social conditions. Finally, in the past the production of cheap food was the most important priority for food companies. Today “these requirements are replaced by concerns about the need for sustainable production, attention to ethical working practices, fair trade and balancing of interests of different parties in the chain”. Besides, retailers and consumers increasingly demand precise information about a product`s origin and about specific characteristics of processes in food chains. In order to turn new developments into successful innovations food chain management aims to integrate and balance the interests of all stakeholders into a sustainable chain management system and to find the optimum between the requirements on economic efficiency, environmental control, process organisation, food safety, marketing or transaction rules etc.<sup>2,3,8,34,35</sup>.

#### **4 Connection with other developments that implicate on future world market and EU agriculture**

Beside the further developments in society like population growth and structures and the corresponding demand of energy also product and process innovations in the field of agriculture and food industry play a role for the future of world and EU agricultural markets.

Furthermore, advancements in food analytics, biotechnology and genetic engineering as well as changes in consumer attitudes are important factors.

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