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Desk study on consumer behaviour towards sustainable food products

Synthesis report

By

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1 Introduction

This report is a synthesis of the individual WP 3 country report of the seven SUS-CHAIN partners. It gives an overview of the different aspects and elements that can contribute to a growing demand for sustainable food products and more sustainable consumption patterns. Together with the synthesis report of WP 2 (State of the Art with respect to dynamics and diversity of food supply chains in Europe), the report will contribute towards Milestone 2 within the overall SUS-CHAIN project.

According to the technical annex, the main objectives of WP 3 were to identify and assess the diversity in consumers' attitudes towards sustainable food products by means of a desk study summarising previous findings. These objectives were however reformulated in the context of the workpackage methodology and the identification of strategies to stimulate sustainable consumption was hereby the new main objective. This could be realised by three secondary objectives:

1. To understand the decision making process of consumers of sustainable products.
2. To identify barriers for consumption of sustainable food products.
3. To identify possibilities to eliminate these barriers.

This report will first give a general view on the definitions and food consumption trends occurring in the different countries. The next paragraph describes the consumer behaviour model of Jager (2000) that will be used as a conceptual framework and serve as a guideline for the discussion of the different factors that influence consumer behaviour. This knowledge allows to identify important barriers for sustainable consumption and formulate possible measures to remove these barriers. As a conclusion, possible strategies for the enhancement of sustainable consumption are discussed.
An important remark is however that most of the results are focused on the sales of sustainable products in supermarkets. Although the importance of out-of-house consumption increases in Europe, there are almost no data available on the consumer preferences, motivations, etc towards this type of consumption. In many case, there is

also a lack of information on direct and local supply channels and why consumers prefer to buy their products there.

2 Definition of sustainability for food products

There is nowadays a general recognition that the impact of the food sector extends beyond what happens on the farms themselves, and incorporates complex relationships between rural development, food production, processing, distribution and consumption at a variety of scales. Issues of provenance, and the environmental, economic and social costs/benefits associated with its production and consumption, have necessitated a critical appraisal of what is meant by sustainable agriculture and sustainable food production (UK report). The aim of this is to give an overview of the definitions that occur in the 7 SUSCHAIN-countries. An additional remark is that sustainability can be defined on different levels (product, marketing, company and country) according to the context of the definition.

A traditional view on this matter, which is mentioned by several national reports, is that sustainability is reached when environmental soundness, economic viability, and social justice are equitably balanced among all actors (Allen, 1991 quoted in Hassanein, 2003; Reheul *et al.*, 2001; UK report). The major advantage of this definition is that it holds on all, previously mentioned, levels. This concept of sustainability is however very complex and often not understood by the consumer. This complexity is also in contrast with the (simplified) marketing approach of sustainability used by some actors in the chain
Sustainability in chains is according to the Dutch Social Economic Council (SER, 2000) determined by two aspects: (i) the deliberate focus on value-added activities within an economic, socio-territorial and agri-environmental dimension and (ii) the continuous relation with relevant stakeholders on the principles of transparency and dialog. These three main pillars of sustainability are again present in this definition, but interaction between the stakeholders in the supply chain is necessary to have a sustainable FSC.

A definition of sustainable agriculture is only mentioned in the UK report and originates form the Sustainable Development Commission. It concerns agriculture that contributes to the overall objectives of sustainable development – to meet the needs of the present without compromising the ability of future generations to meet their own needs. Starting

from this definition, seven objectives for sustainable agriculture within the UK are formulated (SDC, 2003).

At the other end of the food supply chain, sustainable food consumption is defined by the Dutch and Belgian report. The Dutch definition is formulated by Meulenberg (2003) and states that sustainable consumption is based on a decision-making process that takes the consumer's social responsibility (animal welfare, environment, fair trade) into account in addition to individual needs (taste, price and convenience). In order to come to sustainable consumption, it is important to know whether the individual and social responsibility aspects are compensatory. The social responsibility aspects of consumer behaviour are dynamic and can be classified by the type of society a consumer is worried about and the type of problem. Bruyer *et al.* (2003) state that sustainable consumption does not only take the product itself into account but also the production process, the destination of the product and its accompanying waste; but the product must besides that also satisfy the basic physiological needs of people. Both definitions have in common that sustainable consumption is not only determined by the individual needs of the consumer, but that there is also a broader view on the social and ecological relevance of production.

Next to that, the UK report mentions also Lucas and Jones (2003) who define sustainable food supply as the provision of nutritious, affordable and health-enhancing food products to all, providing security and reasonable returns for the food producer while minimising the associated environmental impacts.

According to the Latvian report, the term "sustainable food products" is seldom used in their country, but organic agriculture is defined by law as an agricultural method which is based on enhancement of the self-regulating processes of nature and an increase of biological activity of the soil and precludes the utilisation of mineral fertilisers and pesticides obtained industrially by chemical synthesis, as well as the use of genetically modified organisms and products thereof. This 'Law on Agriculture' will however be replaced by the new 'Law on agriculture and Rural Development' after Latvia's entry into the EU.

Several countries report furthermore that different types of products are linked to the concept of sustainability. According to the Swiss report, the categories concern the

environment, fair trade and the origin of the product; the Italian report has very similar criteria to categorise the products, namely ecological, geographical and ethical products. The German report states that three types of products are perceived as “more than the standard food offer” by the consumer: organic, regional and fair trade products. In Belgium, Mathijs (2003) states that the different aspects of sustainability lead to four types of products that could be communicated to the consumers: government protection, sector labels, distribution brands and private labels, and direct contact with the consumer.

The different reports furthermore describe some other issues on the matter of sustainability. According to the Dutch report, for example, there are great differences in how sustainability is created and communicated by chains and how it is recognised by consumers. Sometimes chains are focussing more on the reputation to be sustainable than there is talk of real investments in sustainability issues. The UK report states that ‘ethical food’ has ethical attributes in relation to three issues: increasing the incomes of disadvantaged communities; animal welfare and environmental sustainability, but it is possible that not all three ambitions are fulfilled on each occasion. The report furthermore mentions that is important to understand the impact of our consumption practices more broadly, including the transportation of food, ethical considerations, the growing importance of transparency and provenance in the provision of food and finally, the opportunities this offers to those rural areas that are increasingly marginalized by global competition. The Swiss report fears that sustainability can be used as a commercial argument since a technical discourse is not accepted and may even lead to concern and anxiety; but is also more efficient to stress the benefits of a product. The Italian report discusses in further detail the three groups of sustainability criteria and their evolution, while the Belgian report gives some examples of the product differentiation based on sustainability elements.

3 General food consumption trends

Consumer preferences and habits can change rapidly, also with respect to agricultural and food products. The observed trends in food consumption will be discussed in the next paragraphs as they will make it more easy to understand and interpret the consumers' decision-making process and final purchase or consumption.

- The Netherlands

A first trend noticed in The Netherlands is an increase in welfare, which stimulates a lifestyle that satisfies other needs like self-respect and self-development next to basic needs. Second, a trend towards more individualisation causes a more differentiated and unpredictable consumer behaviour. The third trend concerns socio-demographic changes. There are nowadays more double-income and one-person-households that want to save time and put more weight to convenience than to the attributes of sustainability. There are however possibilities for quality and sustainable products as the double-income households have a higher income available and elderly people (which is a growing group due to the ageing of the population) focus more on health and sustainability aspects. Fourth, globalisation and modernisation are creating new risks that give room for sustainability labels. Besides, the mentioned trends are causing an increasing contact with new products and using situations. That has to be taken into account with the product development and positioning of sustainable products (Bijman *et al.*, 2003; Meulenberg, 2003; Vuursteen, 2001).

- United Kingdom

A first trend in the UK is a growing recognition of the importance of consumption in general for the development of sustainable societies. Secondly, although consumption has often been viewed in terms of display and status seeking (and to an extent still is), there is recognition that this has perhaps been over-emphasised. A third observation is the prosaic character of everyday consumption practices that are driven by convenience, habit, practice and "individual responses to social and institutional norms" (SDC, 2003a).

Fourth is the tendency towards reflexivity within a post-modern society, whereby society (or some elements thereof) actively reflects upon existing cultural norms. This collective cultural appraisal is then transferred to the level of the individual through narrative and discourse causing increased interest in the origin of food and a demand for closer relationships with the food producer. Nevertheless, concurrent with this reflexivity are increasing demands for convenience, and a growth in snacking, light meals, eating alone, and eating in front of the TV (Almas, 1999; Bonanno, 2000; Du Puis, 2000, IGD, 2002e; Mintel, 2001b).

- Switzerland

The Swiss report distinguishes three groups of food consumption trends: socio-demographic changes, styles of food consumption and concerns. Firstly, the majority of the households are small (1 or 2 persons), there is an ageing of the society, more women have a job and become a mother on a higher age. This leads to smaller amounts bought, out-of-house consumption and different food purchases in the weekend (IHA-GfK). Secondly, Burke (2001) found four types of food consumption in Europe: basic, compensation, good and multifunctional food. Six consumer types can be identified on a horizontal (novelty and innovation versus tradition) and vertical axis (simplicity versus expression of a lifestyle). This typology masks however food zapping behaviour, different consumption habits within a household and different consumption styles in the French and German part of the country. The concerns, the third group of trends, grew out of the food crises, but the consequences are often paradoxical. Examples are the strong ecological awareness versus food purchases; health concerns incite to the consumption of organic products, but at the same time medicines and ultra-transformed food products have an increasing success; consumption of fruits and vegetables is encouraged, but there is no preference for a production method; and a political evolution with anti-globalisation at the one hand and nationalism at the other hand.

- Italy

The situation of repletion is the first trend mentioned by the Italian report. The basic food requirements are satisfied and so food consumption becomes a complex activity dictated by a multiplicity of factors. This is furthermore combined with the great socio-

demographic changes that have affected society (% of women into the workforce, organisation of working hours, different use of outside-work hours, reduction of the average size of the family, increase of single people, etc), but these have also other consequences such as less formal eating modalities and less ties to the family/domestic context. An increase in consumption of food products with a high processing content (convenience food) and the explosion of catering and fast foods is noticed. Fourth, food consumption undergoes some kind of globalisation and, at the same time, there is the safeguarding and appreciation of regional foods (Bernieri, 2002). Furthermore, greater consumer awareness, aimed at health and well-being and driven by hedonism can be noticed (Fabris, 2003). Finally, the Italian consumer has a desire to try new foods and culturalize consumption (Maccaferri, 2002).

- Belgium

A first trend that was observed in Belgium is the satisfaction of consumers' basic needs; as a consequence, the demand for more diversity and new products is increasing but consumption patterns diverge. Socio-demographic changes were also noticed in Belgium. It concerns the ageing of the population, the decreasing family size and participation of women in the labour force. The result is that many consumers want to save time, look for convenience products and supermarkets are the most important place of purchase. A third trend is the increasing importance of the purchasing process and the experiences and possibilities attached to this process. Fourth, food crises led to the growing importance of food safety and an increasing segment of consumers that consciously buys ethical or sustainable products. Studies show however that the behavioural changes are less pronounced with every new crisis that emerges; this may be the result of growing indifference among consumers (Mathijs, 2003; Verbeke, unpublished; Verbeke & Vackier, 2004).

- Latvia

The increasing trade turnover of food and other goods is a first trend noticed; but at the same time the proportion of the turnover of some foodstuff increased year by year. Three groups of products are hereby distinguished: products whose consumption remained constant (bread, cereal, fish), decreased (dairy, sugar, meat) or increased (vegetable oil,

potatoes) in recent years (Central Statistical Bureau of Latvia, 2000). A second trend concerns the prices of food products, but these differ depending on the type of product (Ministry of Economics, 2003). The third trend concerns the trade channels. The total trade area of stores has increased in Latvia, there are more and more supermarkets and also foreign companies are present in retail business. In Riga, the supermarkets have a market share of 48% and the open marketplaces represent 28% of total retail turnover. It is however stated that the development of retail business in Latvia lags behind that of in Lithuania and Estonia (Ercmane, 2004; Jestrova, 2002). A final finding is that the supply of organic products does not meet the demands of potential customers. These products are ought to have good prospects both at home and abroad (Kalnins, 2003; Majenieks, 2003).

- Germany

The first trend that is mentioned in the German report is the long-term trend of an increased demand for convenience products. These products provide the opportunity to manage time and work more efficiently; there is also a growing demand for convenience organic food (GfK, 2001; Knickel, 2002; Öko-Institut, 2002). A second trend involves the importance of price, as consumers are not willing to spend a lot of money on food. Food is – in relation to the household income- as cheap as in the 1960s (GfK, 2003; Knickel, 2002; von Alvensleben, 2000). Third, the demand for healthy products has increased (Knickel, 2002; Alvensleben, 2000). People have become aware of the need for correct nutrition and the market responds by offering functional food. This goes hand in hand with the insight that a healthy lifestyle is the main motivation for purchasing sustainable food products. Fourth, there is a low involvement of the consumer in food and at the same time, many segments of the food market tend to over-segmentation. Fifth is the polarisation between rather cheap bulk products and expensive, luxury goods; but at the same time, consumption habits significantly change with the “multi-optional” consumer as a result. A sixth trend could be a trend towards regional and organic food, but the nature and strength of this trend is still not free from contradictions.

- Synthesis of food consumption trends

The previous paragraphs described the food consumption trends in the individual countries and this is summarised in Table 1. The reader has however to interpret these results very cautiously and this for two reasons. A first reason is the fact that the absence of an 'X' in the table does not automatically mean that this trend does not occur in that particular country. It is possible that a trend is thought to be so obvious that it was not mentioned in the national report, but in some cases there are also lack of data and research to proof certain trend. A second reason to handle this table very cautiously is the fact that different trends are related or one trend can be the consequence of another. Individualisation and socio-demographic changes are for example an explanation for the increasing demand for convenience food.

Table 1. Overview of the occurrence of food consumption trends in the individual country reports

Trend	Countries						
	NL	UK	CH	IT	BE	LV	DE
Basic needs are fulfilled	X			X	X	X	X
More individualisation, hedonism, attention for well-being	X	X		X			
Socio-demographic changes	X		X	X	X		
Globalisation and modernisation	X			X			
Growing interest for new, sustainable and ethnical products, other using situations	X			X	X		X
Greater consumer awareness and concerns			X	X	X		X
Increasing demand for convenience food		X		X	X		X
Different type of food consumption			X	X			X
Tendency towards reflexivity within a post-modern society		X					
Low involvement and over-segmentation							X
Importance of purchasing process, experiences and possibilities					X		
Recognition influence of consumption on sustainable societies		X					
Changing structure of the retail sector				X		X	
Supply of organic products does not meet the demands						X	

Important trends in food consumption, as they were mentioned most by the individual countries, are the observation that the basic needs are fulfilled, the socio-demographic changes and the greater consumer awareness and concerns.

Although five countries mention the fulfilment of the basic needs, this probably is the case in all countries, but the consequences that are attributed to this phenomenon differ amongst the countries. It concerns the low willingness to pay for food products, the decreasing budget spent on food products and the complex nature of food consumption.

The tendency towards individualisation, hedonism and attention for well-being, which was mentioned by three national reports, is in many cases also a consequence of the fact that the basic needs are satisfied.
The socio-demographic changes are another obvious tendency that probably occurs in many (all) countries. Examples are the increasing number of double-income and one-person households, the presence of women in the workforce and the ageing of the population. Several other trends seem to be a consequence of these socio-demographic changes. It concerns for example the increasing demand for convenience food in order to manage time and work more efficiently, but the changes in type of food consumption and distribution can also be linked to this. The catering sector and supermarkets (e.g. in Italy and Latvia) know for instance an increasing success.

A third important element is the increased consumer awareness and concerns. These observations are in many cases a result from the several food crises and scares in Europe and can lead to an increased interest in health-related food and organic products.
The growing interest for new and alternative products can also be linked with the growing awareness and concerns and the fulfilment of the basis needs, but it has to be understood in a broader context. Many consumers are nowadays interested in ethnical products and other using situations. This can (amongst others) be a consequence of the increasing globalisation and modernisation.

4 Consumer behaviour towards sustainable food products

4.1 CONSUMERS OF SUSTAINABLE FOOD PRODUCTS

The purchase and consumption of food products by consumers is the result of a complex decision-making process. In this text, the conceptual framework that is derived from Jager (2000) and is shown in Figure 1 will be used to explore consumer behaviour towards sustainable products. It shows that the three main determinants of choice are behavioural control, needs and motivations and information.

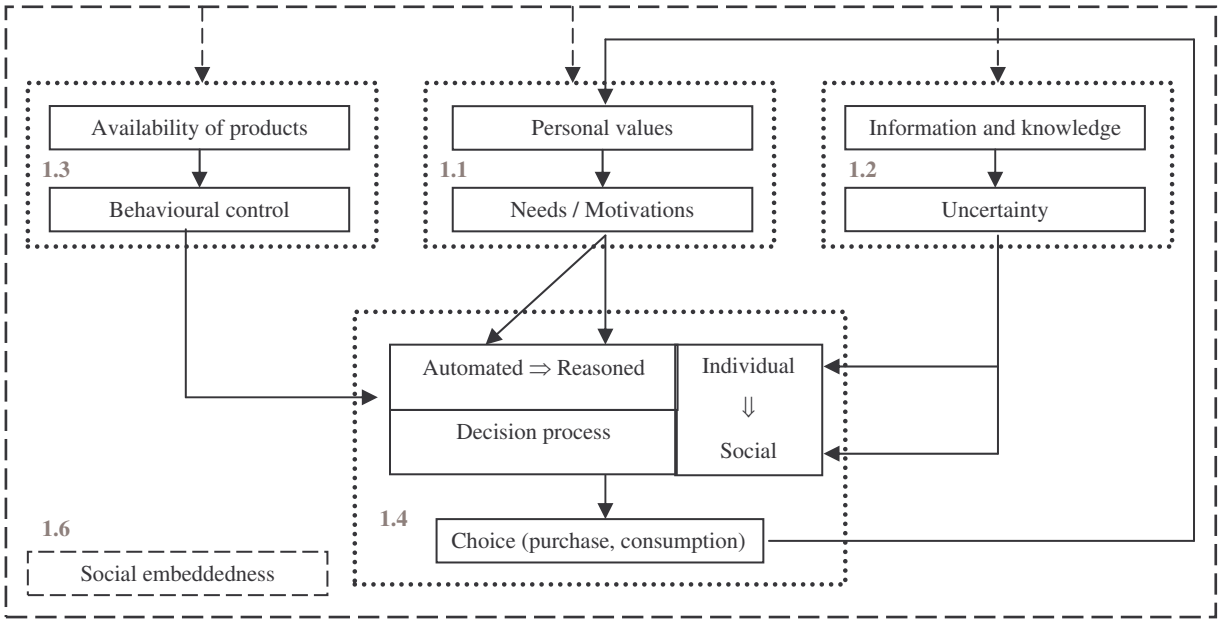

Figure 1. Conceptual framework to investigate consumer behaviour towards sustainable food products (according to the consumer behaviour model of Jager, 2000)

The central part on the upper half of this figure represents the **personal values and needs** of the consumer. Human values are referred to as relatively stable beliefs about the personal or social desirability of certain behaviours and modes of existence, while needs refer to internal forces that drive our actions. Products are characterised by their certain capacity to satisfy one's needs (Jager, 2000). The consumer chooses a product through an interaction of personal needs and the need-satisfying capacity of products. People are motivated to invest cognitive effort in a decision-making process (reasoned

processing) when an important personal need is not satisfied, while automated processing or habitual behaviour occurs when consumers have low motivation due to satisfied needs (Jager, 2000; Bontinckx, 2002). Different theories exist concerning consumer values and needs. Examples are the Maslow pyramid with fundamental human needs (Maslow, 1954) and the value theories of Schwartz (1992, 1994) and Rokeach (1968, 1973). These theoretical approaches will however not be discussed in this text, but the most important consumer values and needs that can be associated with sustainable consumption are given in paragraph 1.1.

The second element, **information, knowledge and uncertainty**, is present at the upper right side of the conceptual framework. The availability of clear information on products is an important factor in the decision process. The less information available and/or the more complex and contradictory this information is, the more uncertain consumers may be. Uncertainty will lead to the use of social information, which means that consumers will look at other people to get an indication of the best outcome. The relative uncertainty about availability and the need-satisfying capacity of products will also stimulate social processing. Research about consumers' awareness, knowledge and understanding of different types of sustainable products will be reported in paragraph 1.2. Other issues that will be discussed here are results on the information that consumers receive and the accompanying (un)certainty, but also the impact of information sources and media.

A third factor is the consumers' behavioural control, which is influenced by the **availability of sustainable products** and this will be discussed in paragraph 1.3. The term 'availability' indicates hereby if a consumer can easily obtain or consume a certain product. Although the motivation of consumers to buy sustainable products can be high, it is possible that this does not result in actual sustainable consumption behaviour due to a low availability of the product.

All these elements will have an influence on the **decision-making process** of the consumer. Many researches measure the attitudes of consumers towards sustainable products, but a positive attitude does not necessarily lead to the desired behaviour, in

this case the purchase and consumption of sustainable food products. The consumer's decision-making process can be characterised by two main determinants or dimensions. Consumers can have an automated or a reasoned at one hand and a social versus an individual decision-making process at the other hand. The chance that a positive attitude towards sustainable food products will lead to sustainable consumption is the highest when a consumer assimilates the available information in a reasoned and individual manner. Section 1.4 will report on the consumer attitudes towards sustainable food products and its relation with consumption behaviour.

Socio-demographic characteristics are not included in the conceptual framework of Figure 1, but these variables are used in a lot of consumer studies to identify consumers and non-consumers of sustainable products. These variables can be interesting to target specific segments of the population when communication efforts try to stimulate sustainable consumption and will be discussed in paragraph 1.5.

Different large-scale developments affect the behaviour of individuals and this will, in this text, be described as the **social embeddedness** of a consumer. Driving factors present in the human environment are culture (as a conglomerate of socially shared beliefs, values and attitudes), institutions (as instruments for constituting and governing human societies), demography, technology and economy. The impact of these very diverse factors will be discussed in section 1.6.

4.1.1 Consumers' values, needs and motivations

- The Netherlands

The Dutch consumer may have a high awareness of environmental problems but this is not linked with food consumption, since consumers have often only a low involvement with food (Meulenberg, 2003; KPMG, 2000; van Dam & Scholten, 1995). However, consumers can be highly involved with food through individualistic motives, such as health, quality and taste, but also because he identifies himself with the social group and culture of the production region. These motives have to be used to sell sustainable

products and even more important, it can be combined with the benefit of environmental protection. The latter is important in people's life, however, not yet very much in the consumer's life. It can be concluded that, since only a limited part of the consumers report environmental motives, individualistic motives are very important. These are health (most mentioned), taste, attractive appearance and desire for authenticity (Platform Biologica, 2002b; Dagevos & Hansman, 1999; De Wit & van Amersfoort, 2003; Van Ittersum, 2001; van Dam & Scholten, 1995).

- United Kingdom

Again it is mentioned that consumers' food purchasing decisions are essentially selfish, being based upon price, health, taste, appearance and convenience, and that they do not often link their food consumption practices with the wider environment, animal welfare or fair trade (IGD, 2002 b & g; Enteleca, 2001; FSA, 2000). However, the number of British consumers who are concerned about ethical issues is increasing, evidenced in the growing number of vegetarians, increased sales of organic produce, and a growing interest in local food (Mintel, 2001a). The motivation for consumers to buy organic products is usually for a combination of health (as a key factor) and ethical reasons, but there is also a sensitivity to price and a demand for convenience (Harper & Makatouni, 2002; Lockie *et al.*, 2002; Mintel, 2001c; Woodward & Meier-Ploeger, 1999).

- Switzerland

For a long time, the distribution in Switzerland has only focused on the functional dimension of products, which resulted in an assortment of mostly standard products. The non-material dimension of products has only recently been addressed and this is a real revolution in the marketing approach. For ecological products, the needs for security and the contribution to the environment are the two main motivations. For the heavy users, the desire to belong to a social group and the contribution to the benefit of the community are also important motivations. Furthermore, quality, origin and taste guarantee are also perceived in ecological labels. Ethical products are an answer to the desire of consumers to act according to their beliefs, while regional products (with origin label) cover more or less the same needs as ecological products, namely the need for security, due to the guaranty of quality, and the need to belong to a group. Furthermore, regional products

are attached to a certain regional image and authenticity (Courvoisier & Courvoisier, 2003; Richter, 2003).

- Italy

Different motivations of Italian consumers to buy some kind of sustainable products are mentioned: food safety/security (Bacchini, 2003; Magelli, 2002), health (ISMEA, 2003; Pinton, 1999; Zanoli & Naspetti, 2002), environmental concern (Carboni & Quaglia, 1995; ISMEA, 2003; Zanoli & Naspetti, 2002), sensory aspects (Pinton, 1999), transparency of the production process (Balestrieri & Cerruti, 2003; Doxa, 2003), hedonism (Fabris, 2003; Miele & Murdoch, 2002; Zanoli & Naspetti, 2002) and the desire for local tradition (Balestrieri & Cerruti, 2003). Remarkable is the fact that reassurance plays a role in buying regional products because of their typical/traditional production method. Typical Italian products try to convince consumers who are environmentally concerned, since they play a role as safeguard of natural resources and fight against environmental deterioration. Transparency in the production process is essential for buying fair trade products. The preference for local products is due to the desire to support the economic sustainability and identity of the region (Balestrieri & Cerruti, 2003). Furthermore, it is noticed that sensory aspects and hedonism are important for almost all consumers, which implies that these are essential conditions for sustainable products.

- Belgium

The Belgian consumers do not feel able to integrate all the parameters of sustainable development in their purchase choice (Bruyer *et al.*, 2003). Furthermore, it is mentioned that collective/altruistic motivations, such as care for the environment, animal welfare and support for the local economy, are only important for consumers that regularly buy sustainable products. More individualistic motivations will target a broader public of consumers. These motivations are economical, health, hedonistic factor or sensory aspects, social motivation (belonging to a group/ social contact) and identification (distinguish from the others) (Bontinckx, 2002; Demey et al., 2003, Vannoppen, 2001 a & b, 2002; VLAM, 2003c).

- Latvia

There are only a limited number of studies available on values and needs and none of them concern organic products. Important criteria for consumers are the price of a product followed by health and the presence of preservatives; whereas the name of the producer and the expire date are much less important. The consumers furthermore prefer well-known products and those that can be bought in the nearest shop. Another study indicates taste, value, price, habit and package as the most important reasons to buy a product (Peipina, 2003; Steinfelde, 2001). Price constraints are thought to be an important barrier for the consumption of organic products, but this is expected to change in the future as the consumers will be willing to pay a higher price (Pelane, 2002; Tisenkopfs & Sumane, 2000; Zola, 2002).

- Germany

Health, food safety, security are again mentioned as the most important motivations for buying sustainable products. Remarkable in two studies (Prummer, 1994; Schaer, 2001) is the fact that the altruistic motivation, care for the environment, is the second most important reason, while better taste is the third motivation. Bruhn (2001) found the same result for the period 1989 to 1999. A difference can also be noticed between committed and occasional organic consumers. The first group is far less sensitive to price differentials and are more likely to adapt their shopping behaviour. Many consumers furthermore associate a higher price with higher quality (Wirthgen *et al.*, 1999).

Taste in regard to ecological sustainable products does not seem to be a deciding factor from the consumer point of view (Von Alvensleben & Bruhn, 2001). The main reasons to buy regional products are freshness and quality (Wirthgen *et al.*, 1999) as well as support for regional development and economy (Ziemann, 1999), while support for small producers in developing countries is the main motivation to buy fair trade products (Krier, 2001; Valio, 1997). Looking at different benefits consumers expect, the quality of products (freshness, taste,…) and its practical use are much more important than the process quality or immaterial, social benefits (Ganzert & Burdick, 2002).

- Synthesis of consumers' values, needs and motivation

A general claim is that food is a low involvement product. This explains why consumers do not link their food consumption with environmental and societal problems. However, in every country, it is mentioned that individualistic motives, such as health (as the key issue), price, taste and appearance, convenience, are important for the consumer. There is however also an increasing part of the consumers that is concerned about sustainability issues and these consumers mention altruistic motives to buy sustainable products. Therefore, a combination of personal advantages (such as security for health) with the benefits of sustainable products (e.g. protection of the environment, animal welfare, fair trade, regional identity) should be targeted. These personal advantages are often seen as essential conditions, since these are important for almost every consumer.

Table 2 shows the values, needs and motivations for the different countries. A variety of needs and motivations are present in all the countries. However, this table does not indicate the importance of the different needs in the decision process and the results have to be interpreted very carefully because of reasons that were already discusses concerning table 1.

Similar results can be found in the international literature. Thøgersen & Ölander (2002) studied the human values and the emergence of a sustainable consumption pattern. Value priorities are hereby assumed to be some of the most stable phenomena in a person's mental set-up and this was proved through the high correlation between value priorities measured in different years. The results show furthermore that Danish consumers give a higher priority to benevolence and universalism than to power and achievement. Based on these results, one should expect that Danish consumers are favourably disposed towards protecting the environment. It should however be noticed that hedonism is also a high priority value, so this can lead to conflicts between striving for a more sustainable lifestyle and hedonic desires. According to Magnusson *et al.* (2003), health is the most important predictor of attitudes and the purchase intention for four types of organic foods. Purchase frequency is however also influenced by environmentally friendly behaviours such as saving electricity, refrain from car driving to spare the environment, etc. Other

important determinants are age, the factor environment and in some cases gender or education.

Table 2. Overview of the values, needs and motivations mentioned in the individual country reports

Values, needs and motivations	Countries						
	NL	UK	CH	IT	BE	LV	DE
Environmental concern	X		X	X	X		X
Health concerns	X	X		X	X	X	X
Food safety/security			X	X	X		X
Value for money/Price		X		X	X	X	
Taste/Good quality	X	X	X	X	X	X	X
Appearance	X	X		X			
Identification/social motive	X	X	X		X		
Transparency of the production process				X			
Desire for local tradition/regional image			X	X			
Hedonism				X	X	X	
Support for the regional economy				X	X		X

4.1.2 Information, knowledge and uncertainty

- The Netherlands

The search behaviour of Dutch consumers is only limited with respect to food, due to the low involvement with food products (LNV Consumentenplatform, 2000). This may lead to a situation where hallmarks simplify and accelerate the decision process. However, consumers also have limited knowledge about food production methods and are not capable to interpret information about food and environment (KPMG, 2000; van Dam & Scholten, 1995). Furthermore, the great number of concepts for sustainability, which are presented in shops, causes confusion. Therefore, confidence in the claim of the hallmarks is very important (Meusen *et al.*, 1998; Van Dijk, 1998). This trust is also an important issue when uncertainty about food safety increases. In this case, hallmarks or shops that create trust are preferred.

- United Kingdom

The UK report mentions that trust is more important than total transparency. Consumers often have a low understanding of food production and hold inaccurate and negative beliefs (Cook *et al.*, 1998). Given their relative lack of active interest in improving

knowledge, the food industry has to try to provide information on the level of consumers. Furthermore, the level of uncertainty amongst consumers has increased due to the food scares and the accompanied news media coverage. When risk is experienced, consumers find it difficult to make a decision. What they really want is definitive advice from an authoritative source (FSA, 2002a). More meaningful information on labels and clear communication to the consumer about the underlying messages of the label could help consumers to overcome their feeling of uncertainty. Now, most consumers focus simply on the best before/used by date, without making wider associations with food production systems. Indeed, as mentioned before in 1.1, consumers fail to make the relevant connections between their food purchases and the wider environmental and social impacts of their decisions (FSA, 2002a & b).

- Switzerland

Three aspects are important with respect to information: familiarity of the label or logo, knowledge of the content of the label and the associated attributes and third the credibility of the label (Courvoisier & Courvoisier, 2003). The organic labels are well known and the credibility is higher for the label Bio-Suisse compared with the organic distribution labels. The awareness of the term 'integrated production' is very low and consumers cannot associate the term with any content. For the other environmental labels, the knowledge of the content is also very weak amongst consumers. The acquaintance of the AOC label increases still regular, with big differences according to the region in Switzerland (Swiss Association for the promotion of PDO-PGIs, 2003). The credibility of this label is considered to be high (Courvoisier & Courvoisier, 2003).

- Italy

The many different types and the complexity of the systems for certification and regulation make these systems not very efficient in providing adequate knowledge to consumers. There is a lack of awareness, knowledge and information about any kind of sustainable products (Corno, 2002). Italian consumers show interest in regional products but there is a wide range of interpretations with respect to typicalness of products (Balestrieri & Cerruti, 2003; Nomisma, 2001). Also with respect to fair trade products,

the number of consumers aware of the existence and aims of fair trade products has increased (Doxa, 2003).

The knowledge and reliability of the guarantee system are according to the consumers a fundamental factor in channelling information and awareness (Didero, 2003). Distributors have contributed considerably in providing information about sustainable products and will play a key role in the future for the diffusion of more knowledge (Berni, 2002). Furthermore, in Italy, the supply of information by the media is extremely differentiated. The media spends much time and space on issues related to food safety and quality, organic products, etc but often spreads incomplete or even incorrect information, "disinformation" or superficial information (Carbone & Sorrentino, 2003; Osservatorio di Pavia, 2002).

- Belgium

The gap between the awareness and recognition of labels and the comprehension of labels is often rather large, possibly due to the high number of unofficial and doubtful labelling initiatives (Verbeke & Viaene, 1999). Traceability has only limited potential as a marketing tool, since consumers are not willing to undertake effort to actively gain information about this system (Verbeke *et al.*, 2002). Regarding labelling, the awareness of labels is rather low. However, one study indicates that when the consumer knows the label, it is effective concerning comprehension, which does not mean that consumers have a profound understanding of the label. Therefore, it can concluded that stimulating awareness of the label is the first priority. A way to reach profound understanding of a label could be farm-gate sale of the labelled product as this can elucidate the higher value and the specific quality of the product. Furthermore, uncertainty about products with respect to information (about food safety and quality) can be compensated through buying products on the farm, due to a relation of trust with the farmer (Gordier, 2003; Vannoppen, 2002).

- Latvia

The information of consumers on organic products is not sufficient and this is also the case for retailers. Research showed that the latter do not know all characteristics of products; they are not well informed about ingredients and the impact on human health

(Zelmanis, 2003). Consumers are thought to be the least competent persons because they do not receive full information. Other concerns are the high number of labels marking quality, healthiness, ecological purity and other characteristics of products (Steinfelde, 2001). There are nowadays a number of websites and other initiatives such as leaflets and exhibitions to provide the Latvian consumer (but also other actors in the FSC) with necessary information about products, their purchase and use.

- Germany

A situation of information overflow and market saturation is noticed and so consumers refuse absorbing more and more information – above all factual information. This behaviour leads to a lacking knowledge and less understanding about food production; loss of transparency and growing anonymity of food for the consumers. The consumer's uncertainty and bewilderment with regard to food grew during the 1970s and 1980s, but have a slight tendency to decrease since the mid-1990s. Still one third of the consumers show mistrust in food security (Alvensleben, 2002). In terms of sustainable food products a flood of labels of sustainable, regional or organic production makes the consumers feel unsure about what is the best way of sustainable an healthy consumption. The German government began in 2001 with the establishment of a national label for organic food, Biosiegel. Basing the label on the relatively mild EU organic standards was justified by the need first to broaden demand before deepening it. The introduction has been supported with substantial funds for publicity and advertising. Research showed that organic food matches best the consumer's expectations of a food production that is environmentally friendly, respects animal welfare, is credible and provides tasty and high quality food. But at the same time, consumers could not clearly differentiate between "controlled", "integrated" and "organic" farming. Mistrust in organic labels is strong even among regular organic buyers and can clearly be identified as an important consumption barrier (Schaer, 2001).

- Synthesis on information, knowledge and uncertainty

Table 3 shows the major findings with respect to information, knowledge and uncertainty; but as already mentioned before, this table has to be interpreted with care.

A major problem, mentioned by all country reports, is the limited and inaccurate knowledge of the consumer on agricultural and food production in general, but it is also mentioned several times that the consumers has a low understanding and is not capable of interpreting information concerning food production. This confusion is furthermore enhanced by the large and still increasing amount of sustainable labels, initiatives, and certification systems on the market. The issue of limited knowledge is also related with the fact that consumers have nowadays a limited search behaviour, their lack of interest, but is also a consequence of the growing gap between producers and consumers.
Uncertainty is another important issue and this is in many cases a consequence of the recurring food crises in Europe. Consumers try to reduce their uncertainty by establishing a relation based on trust with the retailer or even the producer of the food. Another possibility is to find credibility in the claims of labels and hallmarks.

Table 3. Elements on information, knowledge and uncertainty mentioned in the individual country reports

Information, knowledge and uncertainty	Countries						
	NL	UK	CH	IT	BE	LV	DE
Limited search behaviour/lack of active interest	X	X			X		X
Limited and inaccurate knowledge	X	X	X	X	X	X	X
Low understanding/Not capable to interpret	X	X		X	X		
Confusion caused by the great number of sustainable systems and labels	X			X	X	X	X
An increased level of uncertainty		X			X		X
Need for confidence/trust/credibility	X	X	X		X		

4.1.3 Availability of products and behavioural control

- The Netherlands

Limited availability has been identified as a reason for non-purchase, even among the consumers who already buy organic products (Platform Biologica, 2002a). However, the number of distribution channels that sell organic produce is increasing (caused by the supermarkets). Nevertheless, the broadness and deepness of the assortment organic products is still limited (Platform Biologica, 2002b).

- United Kingdom

A major shopping trend is one-stop shopping in supermarkets. This together with an increase in organic convenience food has led to a greater availability of sustainable food products in supermarkets (Mintel, 2001 b & c). Also with respect to local foods, supermarkets are claiming to respond to increased consumer interest in local/regional produce, but there is often little evidence of this actually happening (Mintel, 2003). Besides, there are then problems associated with food miles, money lost from the local economy, poor returns to farmers, etc (La Trobe, 2002). The alternative is to get consumers to buy through local food outlets, which are more time-consuming, have a smaller capacity and are less convenient (Archer *et al.*, 2003, IGD, 2002a). Lack of convenient availability is a constraint on the sales of sustainable produce, coupled with confusion over labelling at the point of purchase.

- Switzerland

Most traded products with a sustainability promise are sold with a retailer label. Both organic and Max Havelaar products can now be found in most supermarkets, in partnership with a retailer label. The market share of Max Havelaar is for some products quite high. With respect to the origin labelled products, large retailers find it difficult to introduce them. The promotion of these products is little emphasised, so that consumers must be well aware of these labels to identify the specific products in the shop. Furthermore, there is a proposal of retailer trademarks to offer highly processed organic products, while now most organic products are fresh products. However, big trademark companies seem unwilling to enter this market segment.

- Italy

The number of Italian sales points of organic products has progressively increased and does not only concern specialised shops. Many supermarket chains are nowadays able to satisfy the demands of a consumer increasingly more exacting, offering a very large number of alternatives for purchase (Didero, 2003). The circuits of conventional distribution (supermarkets, specialised retail and direct sale) carry out a fundamental role in supporting the demand for both organic and local foods. However, the potential of new innovative channels can become very important if they are sufficiently developed.

Initiatives such as box schemes, organic markets, selling by correspondence and e-commerce are mentioned as new channels for organic products. With respect to local products, the examples are groups of buyers, farmers' markets, thematic routes, gastronomic routes or new circuits built on old models of direct interaction (townsmen combining a tour in the countryside to buy food from producers). For fair trade products, the difficulties in locating products and the inefficiency in the distribution system were the main problems and this is overcome by an ever-increasing range of fair trade products sold through conventional sales points (Bernieri, 2001).

- Belgium

Consumers are aware of the fact that organic products are available in many sales points (VLAM, 2003a). Furthermore, consumers claim that a higher availability could increase their consumption of organic products. With respect to fair trade products, the low market share could be due to the inefficient distribution and lack of visibility in the shops (De Pelsmacker *et al.*, 2003). This has however changed recently as fair trade products are now more broadly available in supermarkets and other outlets next to the traditional specialised shops (*Wereldwinkels*).

- Latvia

Sustainable products are at this moment marketed in four ways: through supermarkets, specialised marketplaces, hotels & restaurants and direct sale. Research showed that retailers are willing to buy sustainable food products but they need a regular supply in large quantities. Some supermarkets however co-operate with farmers and local producers (Jestrova, 2002). It is expected that more and more Lithuanian organic products will be brought on the Latvian market in the immediate future. There are some counters allocated for organic producers food in the Riga Central Marketplace and there exist examples of hotels, cafés and restaurants that use organic products under certain conditions. Broad networks of informal direct supplies and sales from farms to local shops, schools, hospitals, etc exist but generally, direct sale as a method hasn't been sufficiently and broadly used (Tisenkopfs & Sumane, 2000).

- Germany

There has been a substantial rise in short chains, regional / quality production and organic farming since the 1990s in most rural areas. Particularly dynamic fields are organic farming and high quality production which is often linked with particular regional qualities and labels. Short distribution channels (especially direct sales) were a key feature in the 1970s for the selling of organic products. The organic market developed significantly in the eighties, but the sales remained confined to farm shops, 'neighbourhood' organic stores and specialist health food stores. The organic marketing developed in many different ways to the first organic discount stores, but direct marketing and specialist shops retain their prominence. More recently, specialised supermarkets are becoming more important new sales points of organic food in Germany. Seemingly, the intention to buy organic food can easily be realised, but there are still obstacles: organic food stores often give the impression to serve a very special "insider" clientele and in supermarkets, organic food is often presented in a less attractive way or it is hard to be found.

- Synthesis on product availability and behavioural control

As for the other paragraphs, Table 4 gives an schematic overview of the elements mentioned in the country reports. Many sustainable products (e.g. organic products) do not longer belong to a niche market but have an increased availability, due to the increased number of distribution channels (mainly supermarkets) that are selling these products. An increase in organic convenience food has been reported by the UK. However, sustainable products are still seldom offered in a broad and deep assortment. Consumers claim that a higher availability could increase their consumption.

For local food, there appear some (often practical) difficulties, which could be solved by some new innovative systems. These new and innovative marketing channels are not mentioned by all reports, but different initiatives of course exist in each country.

The sales of fair trade products are in evolution in several countries as these products are nowadays also available in supermarkets. Two countries, however, report an inefficient distribution of these products.

Table 4. Overview on the issues mentioned in the country reports concerning availability and behavioural control

Availability and behavioural control	Countries						
	NL	UK	CH	IT	BE	LV	DE
Limited availability as a reason for non-purchase	X				X		
Availability has increased	X	X	X	X	X	X	X
Still limited assortment	X						
Difficulties with local foods/origin labelled food		X	X				
New innovative channels				X		X	X
Inefficient distribution of fair trade products				X	X		
Sustainable food is presented in a less attractive way							X

Briz & Al-Hadji (2003) refer to a study of MAPA (2002) that identifies two main commercialisation models across Europe. Model A is the one in which most of the organic product sales is made through hypermarkets and supermarkets, as for example in Denmark, Austria, Sweden and the United Kingdom. While in model B the specialised stores are the most important outlet with Italy, France, the Netherlands and Spain as examples. This difference leads also to an important distinction in the percentage of organic product sales. In model A, this is on average 1,375% of the agricultural and food market and only 0,575% for model B. The authors conclude from this that, as soon as the distribution channels change, and the organic products are available at hypermarkets, affording appropriate information about organic food to the consumer, the consumption may reach higher levels.

4.1.4 Decision-making process: attitude and consumption behaviour

- The Netherlands

Several studies (Burell & Vrieze, 2003; Kuiper *et al.*, 1991; Wempe, 2000) have found a gap between the attitude towards sustainable products or the willingness to buy these products and the actual buying behaviour. The buying process is for most food products a routine process (low involvement, high buying frequency). In this case, the consumer is not evaluating different product attributes but he uses simple decision rules such as brand or label/hallmark. Therefore, it is important that consumers have a positive attitude towards the label. This is often not the case when the label is not trusted or when there

are problems with product attributes such as taste, convenience and price. These negative scores are not always compensated by other attributes and can lead to rejection of the product (Meulenberg, 2003). Furthermore, most of the time consumers make their choice in the shop environment (Wempe, 2000). This makes the positioning (price, assortment, promotion, etc) of sustainable products in the shop very important. Moreover, purchases are often determined by situation or moment depending on the available time and using situation. The product specific regional image factors such as human, natural and climate have an influence on the attitude and preference for regional products. The desire to protect the Dutch economy and employment and to have a positive national identity has a direct influence on the willingness to buy Dutch products (Van Ittersum *et al.*, 2003; Verlegh, 2001).

- United Kingdom

Although most consumers have a positive attitude towards sustainability, there are some unresolved conflicts in the interests of the consumers (the high price premium and the desire for year round access to all foods) (Enteleca, 2001). This leads to a low percentage of consumers who actually buy sustainable products. Consumers are often interested in buying local produce because it is perceived to benefit the local area, and yet cheaper prices, convenience and accessibility are likely to be the major factors encouraging more consumers to buy more local produce. Recent studies indeed identify considerable consumer interest in buying local produce, although a much smaller percentage actually buys them (IGD, 1998; Purslow, 2000; Weatherell *et al.*, 2003).
A good example of the conflict between consumer attitude and behaviour involves the ban on the use of tethers and stalls for pregnant sows (from 1999), which were brought in partly as a response to consumer demands. This has caused the British pig industry to become uncompetitive in relation to cheaper imported products, and yet many consumers are not prepared to pay for the higher standards of domestic produce that, to some extent, they have demanded (Mintel, 2001a).

- Switzerland

The gap between effective buying behaviour and the attitudes of consumers concerning sustainable products is also found in Switzerland. The market shares of environmentally

produced food are furthermore limited; but this is to some extent higher when animal welfare is integrated into the environmental concern. In contrast, the percentage of buyers of organic products is consistent with the percentage that intends to buy organic products. In other words, there are only a small percentage of consumers that never buys organic products. This high percentage of organic buyers consists however for a major part of irregular buyers and the average amount and value bought by each buyer per shopping act can vary substantially. Furthermore, the presentation of products at the sales points, the habit behaviour and the image and trust of trademarks seem to play a dominant role in the choice of products (Crédoc, 1999; Giraud, 2003; Richter, 2003).

- Italy

In Italy, consumers base their decisions on "quality signals". Different quality factors deserve attention in the context of sustainability: the brand (considered synonymous with a guarantee by the consumer), the type of certification of process and product, geographical origin and price. A previous experience can be a very important element in building up trust in the product or the producer. There is also a type of consumer of sustainable products who favours direct relations with the retailer. A product with a mark of origin is often seen as a product of quality. However, there is often a substantial information asymmetry between consumers and producers concerning the product's protection of origin. Consumers have furthermore developed a great sensitivity to price and especially the relation price-quality, which has become central to the case of new food products for which there is no adequate information. For typical products, consumers accept paying higher prices because of their wish to support the regional economies and their productive and cultural identities but also because of the perception of "better quality" (Balestrieri & Cerruti, 2003; Fabris, 2003; Maggi, 2003; Nomisma, 2001).

- Belgium

Many Belgian consumers have a positive attitude towards organic products, regarding the health aspect, protection of the environment, food quality, animal welfare, etc. However, a high percentage of the consumers with a positive attitude towards these aspects do not buy organic products (VLAM, 2003a). This could be due to the more negative attitude

towards other characteristics. The price premium seems to be the most important argument inhibiting the consumption of organic products. Also, a high percentage of consumers do not believe that organic production is strictly controlled, which underlines the importance of trust. Consumers are in general rather critical towards quality labels (Cera-foundation, 2001). A market segmentation has been carried out concerning consumers' attitude towards agriculture with four segments as a result. One segment (24%) has an overall negative attitude towards agriculture and offers a high potential for promoting sustainable products. Another segment (29%) has a positive attitude with the focus on organic and sustainable agriculture (Saenen, 2002). Although there is often a positive attitude towards sustainable products, the market share of these products is very low. This could also be due to the increasing number of products with some kind of a label indicating sustainability and the consumer's increasingly difficult choice between labels.

- Latvia

The decision-making process is not well studied at this moment, but there is again a gap between the stated willingness to pay for sustainable products and the actual buying decision described. This can be proven indirectly by the expanding initiatives and practices of food supplies from organic farms to urban families as was shown in the WP2 report.

- Germany

Different consumer segmentation studies have been carried out based on attitudes, motivations, consumption habits, consumption styles, etc. This reveals that even within the group of organic consumers, there is variation in attitudes and motivations to buy organic products. The result of one segmentation (Fricke, 1996) reveals four segments: health oriented (34%), critical and quality orientated (28%), sceptical and environmentally concerned (15%) and satisfied casual buyers (25%). Another segmentation is designed as a target group model for the promotion of sustainable consumption with the consumption pattern of ecological agricultural products as a central aspect (Empacher, 2003). Four target groups were identified: an environmentally oriented group, a privileged group, a group of ambivalent traditionalists and a group of people who can't cope

(underprivileged). In all groups, there are factors present that determine the amount of sustainable products that will be consumed.

The attitude towards regional products differs between regions but is in general positive due to the image of freshness and quality. The regional origin is thus regarded as a reinforcement of the criteria freshness and taste instead of an additional criterion (Alvensleben & Gertken, 1993; Balling, 1996 & 2000; Richter, 2001; Schaer, 2001; Wirthgen *et al.*, 1999)

- Synthesis on the decision-making process

An overview of the factors that influence the decision-making process is shown in Table 5. These data have to be interpreted cautiously as was already mentioned concerning Table 1. The most mentioned issue is the gap between the positive attitude and intention of consumers and their actual purchase behaviour. Different explanations are suggested and price is hereby considered to be an important obstacle. Another problem is that consumers often perceive other essential attributes like taste and convenience negatively.

Table 5. Overview of the elements of the decision-making process that are mentioned in the country reports

The decision-making process	Countries						
	NL	UK	CH	IT	BE	LV	DE
Gap between positive attitude/intention and actual purchase behaviour	X	X	X		X	X	
Routine behaviour (food low involvement)	X		X				
Trust and image of label/trademark/producer is very important	X		X	X	X		X
Low score on essential attributes such as taste	X	X			X		X
Price seems to be the most mentioned obstacle	X	X		X	X		X
Purchase behaviour often situational influenced	X		X				
Regional/local products are perceived very well	X	X		X			X

Next to these attributes, the sustainable aspects of the product should be trusted, which means that the image of the products, the producer, the trader should be able to convince the consumer to buy the product. Furthermore, behaviour based on habit has also been proposed as a reason for the low market share of sustainable products. Even if consumers have good intentions to buy sustainable products, once in the shop consumers will search for their habitual products or will be influenced by situational factors such as promotion. Several national reports mention a positive perception of

regional and local food products, since they have the image of freshness and quality and contribute to the regional economies and identity.

Next to the values, Thøgersen & Ölander (2002) also studied consumer behaviour and they found that behaviour is more variable in time in comparison with values because of (variable) external conditions and the differing frequency of performing a certain behaviour. Stability of behaviour is often assumed to be the product of habits that are performed in a more or less automatic fashion, but these authors however conclude that, when behaviour is stable, the forces determining behaviour are unchanged. It was furthermore observed that predominant causal influence between basic values and environment-friendly behaviour indeed goes from values to behaviour in a short-term perspective.

4.1.5 Socio-demographic profile

- The Netherlands

The results of research on the socio-demographic profile of organic consumers differ. While one study shows that there are no big differences between organic consumers and the average Dutch households, another states that buyers of organic products are more often elderly people, people with children and realising a higher income. A third study revealed that organic consumers are better educated and more strongly involved with social organisations (Platform Biologica, 2002 a & b). Better educated people also buy more frequently fair trade products and this groups is also more familiar with the label 'Max Havelaar', just as the age group 40-49 and the smaller families (Kuiper *et al.*, 1991).

- United Kingdom

Existing research (Mintel, 2000a) splits consumers into five categories with a specific profile: good food lovers (37%), traditionalists (22%), foodies (21%), pickers (10%) and quantity not quality eaters (10%). Concern about food safety is widespread amongst consumers, with a clear skew towards women aged between 45-54 and ABs; while another study attributes food safety concerns to women and ABs (due to the latter's better education). Another observation is that urban consumers are more concerned

about food safety issues than their rural counterparts. Rural consumers seem to be more inclined to buy directly from the farm, to be more aware and knowledgeable about food supply chain issues, but also to care more about the impact of their food purchases on the countryside and environment (IGD, 2002a; Weatherell *et al.*, 2003). Buyers of local produce are particularly concentrated amongst those aged 55 plus, ABs and Es, family groupings and women (Mintel, 2003). The most likely consumers for organic products have a family, are aged between 35 and 44 and belong to the socio-economic group ABC1. Lower income consumers tend to have the least awareness of food quality assurance schemes and are often cynical about the trustworthiness of food labels (FSA, 2002a; Mintel, 2000b, 2001 a & c; NCC, 2003).

- Switzerland

For organic products, the number of buyers is ca. 73%, but only 12% is considered to be a heavy user. A comparison of the regions shows that the percentage of organic consumers is somewhat higher in the German part of Switzerland. The age group 40-49 is hereby more prominent and there is an income-effect (Richter, 2003). Only little information is available on the socio-economic profile of typical products. Ca. 64% of the people that know PDO actually buy these products and they think that it is very important that the products have a PDO-label. This percentage is higher in the French-speaking part, in the city and for men and lower for the young respondents (Swiss association for the promotion of the PDO-PGI products, 2003).

- Italy

A typical Italian consumer of organic products is usually male, of high socio-economic level, single, graduate and aged between 40 and 49 years; he lives in the North and is self-employed (Corno, 2002). Based on the average national expenditure for organic food, the sectors with medium-high and high incomes show the highest propensity for spending (ISMEA, 2003). This is usually the case for young families, living in the North (North West and North East) and with 3-4 members. A typical consumer of fair trade products is aged between 35 and 55 (but can also be younger), is academically well qualified, lives mainly in Northern Italy and may be either male or female. He buys in World Shops and has only recently begun to frequent supermarkets (Doxa, 2003).

- Belgium

Belgian buyers of organic products are likely to be women, live in the city, are between 25 and 45 years old, and have young children. There seems to be no influence of the educational level and there is a smaller amount of organic consumers for the lowest and highest income class (Cera-foundation, 2001). Another research (VLAM, 2003b) studied the profile of consumers who already consumed at least once an organic product. Regarding gender and age, similar results are obtained, but there is also a decreasing trend for the social class. People in the 31 to 44 age group, male and higher educated respondents are relatively more present in the segment of consumers who find fair-trade very important (De Pelsmacker *et al.*, 2003). A relatively higher percentage of older consumers buy their products on the farm. The consumption of farm products is furthermore lower for one-person-households and the upper social class.
In sum, consumers who are most sensitive to sustainable products are mainly women, middle-aged, higher educated and with the city as living environment.

- Latvia

Research shows that those better educated, and better off as well as city dwellers can change their habits and turn to a healthier diet quicker than others. This is also more frequently the case for women (Tomsone, 2003). Different socio-demographic groups furthermore assess their consumption of healthy food differently. The groups with a high income are believed to be potential consumers of organic food products with mothers as a particular group (Liepa, 2002; Pelane-Slusare, 1998; Sumane, 2003; Tisenkopfs & Sumane, 2000).

- Germany

German buyers of organic products generally have higher incomes, higher formal education, are relatively young and live in households with children. A relative high willingness to pay is noticed among double income, no kid-households. Some authors state that socio-demographic criteria lose their explanatory potential, but the same characteristics were confirmed in a later study (Fricke, 1996; Klausegger, 1995; Schaer, 2001). Consumers who pay attention to products' origin are described as wide-minded,

with a great willingness to pay and of relatively high revenues, but the importance of origin differs between regions. Other findings are that patriotism seems to play a decisive role and that labels have a minor importance; but not all authors agree with this. More general conclusions about regional products are that the origin is gaining attention, especially in small regions; the higher importance of origin due to globalisation and internationally standardised products; the influence of degree of transformation and convenience on the perception; and different attitudes between regions. Especially elder consumers with a relative low level of formal education prefer products of the own region. The consumers of ethically correct products are foremost young families and people of high formal education (Prummer, 1994).

- Synthesis on the socio-demographic profile of consumers

In order to simplify the comparison of the outcomes of research considering the socio-demographic profile of consumers, an overview is given in Table 6. In general, this table mentions issues that have a positive influence on the purchase and recognition of three types of sustainable products. Elements that have a rather negative influence on the purchase decision are indicated with '-'. The table comprises furthermore three types of sustainable products: (i) ecological products but most studies mentioned in the national reports concern organic products, (ii) regional and typical products, and in some cases farm products, but this is mentioned explicitly, and (iii) ethical products which are in all cases fair trade products. A problem with the interpretation of these results is the fact that no distinction can be made between regular and occasional buyers. This could lead to different findings because both groups do not have the same expectations and involvement.

If the results of the different studies on ecological products are compared, the presence of children or young families as a positive factor can be noticed in almost all countries. This has probably to do with the health concerns of parents towards their children. Another element that occurs frequently is the beneficial effect of a higher income, although this is seen as an negative element in a Belgian study for the highest and lowest income classes. Organic consumers seem to have a rather high level of education, but

not all research could prove this tendency. The results concerning the age of the consumers and their gender differs from country to country, but the relatively higher presence of the age group 40-44 among organic consumers seems a common element over the countries. In several countries, there are also differences notices in the purchase behaviour of organic products according to the region where the consumers live.

Table 6. Socio-demographic profiles of sustainable products mentioned in the country reports

Country	Ecological products (organic)	Regional products	Ethical products (fair trade)
NL	1. No differences 2. Elderly, with children, higher income 3. Higher education, involved in societal organisations		1. Better educated 2. Better educated, age 40-49, smaller families
UK	Families, age 35-44, ABC1	1. Age 55+, ABs & Es, family groupings, women 2. Farm products: rural consumers	
CH	German speaking part, age 40-49, income effect	French speaking part, city, men, - younger	
IT	1. Male, high socio-economic level, graduate, age 40-49, North, self-employed 2. (Medium-) high income, young families, North, 3-4 members in family		Age 35-55, academically well-qualified, North, buy in World Shops, men or women
BE	1. Women, city, age 25-45, young children, - highest & lowest income class 2. Similar results gender & age, decreasing trend social class	Farm products: older consumers, - 1 person households, upper social class	Age 31-44, male, higher educated, men
LV	Better educated, better off, city dwellers and women		
DE	1. Higher incomes, higher formal education, relatively young, with children 2. Relative high willingness to pay in dink-households 3. Socio-demographic criteria lose explanatory potential 4. Confirmation results 1.	1. Wide-minded, high willingness to pay, relatively high revenues 2. Patriotism 3. Elderly people with low level of formal education	Young families, high formal education

The socio-demographic profiles of consumers of regional and traditional products don't seem to have common elements, except for a relatively higher age in the UK, Belgium and Germany, and a younger age is a negative indicator in Switzerland.

A high formal education is a characteristic of consumers who buy fair trade products that occurs in all countries that dispose of studies in this matter. These consumers are in many cases also relatively young (35-40), except for the Dutch case where the group 40-49 is more present. Other socio-demographic characteristics of buyers from ethical products are that they have a young or small family, but no statement can be made about their gender.

There are some important differences between the socio-demographic profiles for the three groups of sustainable products and so it is impossible to identify 'the consumer of sustainable products'. It can however be stated that educated people with a relatively high income and that are between 35 and 45 years old have a higher chance to buy sustainable products.

4.1.6 Social embeddedness

- The Netherlands

The Dutch report defines social embeddedness as the extent in which individual consumers / citizens and organisations are involved in the design of sustainable chains, the consumption and the promotion of the products of these chains. The extent of involvement of these actors is however not widely developed; there is even disconnection from agriculture, enhanced by the export-orientation of the Dutch agriculture (Vuursteen, 2001). The emergence of covenants between short food supply chains and societal organisations for stimulating sustainability is a starting point for more involvement of societal organisations into food supply chains. A problem is the fact that large FSC have more often a re-active than a pro-active approach.

- United Kingdom

The reconnection of the consumer with what they eat and how it is produced is a point of attention in the UK, with the specific intention of improving the sustainability of farming and food (DEFRA, 2002). Social embeddedness is seen as an increasing recognition of the significance of social relations within the FSC, as a means of generating trust and increasing transparency in the provision of food. This concept can be extended to include

the relevance of the location of food production and is then called local embeddedness. This gives more recognition to the social ramifications of the exchange process, especially in direct marketing outlets that allow a direct interaction to build up trust (Hinrichs, 2000; Kirwan, 2003). This increased consumer interest in having closer social/ local connections with their produce has been recognised by the large supermarkets, who have sought to mimic what outlets, such as farmers' markets, have to offer their consumers (Poulter, 2003).

- Switzerland

Drastic changes in food consumption happen very slowly, but in some cases this is accelerated or drastically changed by catalysing events such as food scares. Other elements that can have an influence on the individual consumer are fashion trends, familial judgement and finally, the retailers, who have an important influence on demand orientation.

- Italy

The origin of trends in food consumption can be found in the changes in the Italian society as a whole and in the influences that the entire social context has on the individual consumer. The changes in the society are an expression of the changes in the heritage of values, ideology, culture and customs that take place with time along with the evolution in knowledge, technology, economic activity and relationship with the natural environment. Specific stimuli from the processes of post-modernity have been added to these tendencies (Fabris, 2003). This is accompanied by a growing individualisation and decontextualisation; but at the same time, the postmodern society is also a network society and so the social dimension of consumption finds new force. This search for new forms of sociality includes attention to values traceable to the ethical sphere; to values common to large segments of society and that some groups and movements defend more explicitly.

- Belgium

Decisions are in many cases also a consequence of the entire society, the social embeddedness. A first element that had an important influence on society are the food

crises and scares as they led to an increased consciousness on the link between food and health and demands for specific attributes. The second element concerns the fact that consumers are not the only actor in the supply chain. The decisions of the retailers, for instance, can also have consequences throughout the entire FSC.

- Latvia

The growing interest of consumers for sustainable food products is believed to be a consequence of the successful effort of producers to tell the society what these products are and why they are to be chosen (Pelane, 2002). Agro-environment policy is given an increasing attention because of the high priority of environment in EU countries, the growing awareness that economic recovery and growth of agricultural production may involve a negative impact on the nature and the growing awareness that rural development should be considered in broader than agricultural terms (Tisenkopfs, 1998). To facilitate the consumption of sustainable food, seminars and expositions have been organised in Latvia. The "green agriculture" seems furthermore to become more popular: on the one hand, there is increasing demand for healthy foodstuffs, on the other hand, the state provides substantial subsidies to support "green" agriculture and attracts more and more small and medium size farms to such a production (Tomsone, 2003).

- Germany

In Germany, a study (Sinus Institut, 1995) exists on the influence of affiliation to different milieus. This research showed that, in the middle of the 1990s, large societal groups were not touched by organic consumption. Recently, there was a refinement of the approach published whereby the set of milieus are arranged along the axes 'societal situation' and 'orientation'. It is interesting to see that the milieus where organic buyers are particularly frequent, have a trend-setting and avant-garde character and "pull" the society as a whole towards new living and consumption patterns.

- Synthesis on social embeddedness

A first dimension of social embeddedness that was mentioned in several country reports is the involvement of consumers and citizens in the food supply chain, the reconnection of

consumers with the food they eat and the increasing significance of social relations within the FSC. The link of consumers with the rest of the chain is at this moment not widely developed and in some countries, a disconnection can even be noticed. Measures to improve this situation are for example the covenants in the Netherlands. Improved relations between the different levels in the FSC will inevitably lead to a situation of more trust and transparency. The UK report mentions the definition of local embeddedness. This concept adds the relevance of the location to the social embeddedness, which gives more recognition to the social ramifications of the exchange process.

A second aspect of social embeddedness is the fact that a consumer is only a small part of the entire society and hence undergoes influences from that society. Examples are the food scares and crises, fashion trends, familial judgement and decisions made by other actors in the food supply chains. Other influences come from the process of post-modernity and the milieu the consumer belongs to.

4.2 BARRIERS FOR CONSUMPTION OF SUSTAINABLE FOOD PRODUCTS

In the previous paragraphs, the consumer behaviour model was discussed extensively. This will serve as general background to identify the most important barriers for the consumption of sustainable food products.

- The Netherlands

The first Dutch barrier is the remoteness between production and consumption. The consumer is, as a consequence, not able to judge the production method and has a low involvement with food supply chains and food products. A second barrier is the lack of a clear information system. Such a system is necessary because the sustainability concept is not unambiguous and exact measurable, its dynamic nature and the confusion about image and reality. Hallmarks and certification should function as institutionalised clarity in this matter, but so far they don't. Third, sustainability is a credence quality and this can lead to problems concerning authority and trust. The consumers' decision process is the

fourth barrier with for example the gap between values and behaviour; indifference, laziness and unhealthy eating habits; a limited connection between experiences of consumers and labels; and little active searching behaviour from the consumer. The higher price of sustainable products is another important barrier. This price difference is caused by the higher production costs, the higher costs per unit and the high margins of supermarkets on organic products. The major problem is that prices in general do not reflect all the costs of a product (e.g. environmental cost) and so the comparison with non-sustainable products is unfair. The final barrier is the availability of sustainable products (Florschutz *et al.*, 2002; Van den Hurk & Smink, 2000; Meeusen & Deneux, 2002; Meulenberg, 2003; LNV Consumentenplatform, 2002; RLG, 1998; Van Bruchem, 2003; Vuursteen 2001)

- United Kingdom

A first barrier mentioned in the UK report is the rather selfish nature of the consumer's food purchase decision. Secondly, one cannot rely on consumers' goodwill to increase the consumption of sustainable food products; it is necessary to respond to their needs/demands. The third barrier is the general low-level of understanding of consumers about the wider implications and issues inherent within their food purchasing decisions. The fourth barrier encompasses the availability of sustainable products as a lot of consumers buy their food provisions from supermarkets where sustainable produce is not always available. Local food outlets lack at the same time the regularity and convenience demanded by consumers. Fifth, logos and labelling are often confusing and inadequate for consumers. A sixth barrier is the ambivalence on the source of food. Consumers are, to some extent, interested in learning more about the impact of their purchasing decisions, and yet at the same time they just want to buy their provisions without feeling a sense of moral obligation to buy something in particular. A final barrier is the higher price for sustainable products that is a disincentive for all consumers, but particularly for the lower socio-economic groups. Even when a consumer may be able to afford sustainable food products, there is frequently insufficient information to encourage them that the extra expense is worth it.

- Switzerland

The Swiss case is a very particular one as consumers unconsciously buy environmentally-friendly products. Ca. 95% of the Swiss agricultural production respects as a matter of fact certain ecological prescriptions, but this quality is not communicated towards the consumer. Only a few percent of the consumers buy consciously sustainable products.

Three barriers for sustainable products are identified in the Swiss report: price, appearance of the products and slow changes. Price is an important consumer tool to judge the quality of the products he's buying (Richter, 2003). The appearance of the products is another important element that can be a barrier for sustainable products. The last barrier is the slowness of change as purchases are mainly determined by brand loyalty and routine.

- Italy

The main barriers to the development of consumption of sustainable products in Italy can be traced to five common elements: limited or imprecise knowledge of production methods (especially for organic and traditional products); limited or confused knowledge of brands and certification bodies (this should be provided at the sales point); inadequate quality of products; too high price, especially in difficult economic times; and the scarce availability (for example from animal welfare products) or difficulty of location (mainly for typical products). These elements are analysed in Table 7 for each type of sustainable products (ecological, regional, ethical).

Table 7. Overview of the Italian barriers to consumption for ecological, regional and ethical products

BARRIERS TO CONSUMPTION		Ecological products (Organic-Integrated)	Regional products	Ethical Products	
				Fair trade	Animal welfare
Quality	Freshness	X			
	Taste	X	X	X	
	Appearance	X			
Lack of information	knowledge of methods of production and commercialisation	X	XX	XX	XXX
	knowledge of brands and certification bodies	X	XX	XX	
Price		XX	XX	X	
Availability of products		XX	XX	XX	XXX

- Belgium

A lack of an unsatisfied need with respect to sustainability is the first barrier mentioned in Belgium and this leads to habitual purchase behaviour (Cera-foundation, 2001). People that are satisfied with the present agriculture for example do not consider the purchase of sustainable products. Second, a negative attitude towards sustainable products will never lead to sustainable behaviour (Gordier, 2003; Verbeke & Viaene, 1999). The attitude is often less favourable due to the fact that sustainability is perceived as incredible or unreliable, as a consequence of confusion and scepticism and because of the high price premium (Cera-foundation, 2001; De Pelsmacker *et al.*, 2003). However, a positive attitude will not necessarily lead to the purchase of sustainable products. Third, the lack of clear information about food products in general and specifically sustainable products could have a negative impact on the decision-making process due to uncertainty and social influences. And finally, availability of sustainable products is determining for the consumer's ability to purchase sustainable products.

- Latvia

A first barrier is the limited purchasing power of the Latvian consumers as there is no stable middle class; the production costs are 30 to 40% higher and state support is not that significant. Other mentioned barriers are the very fragmented nature of the organic sector; the resistance of major processors to process organic products because of the small quantities and irregular supplies; the consumption that is impeded by low purchasing power and lack of common production and marketing activities of farmers; a lack of knowledge about collective economic activities and trust in collective actions; only small quantities of cereals, meat and dairy products reach consumers as an organic farm product; supermarkets currently do not have a distinct approach towards marketing of sustainable agricultural products; there is no one single place or particular places for selling such product; the procedures for labelling foodstuffs; the threat that sustainable food products will be mixed up with products produced using conventional methods; there are shortcomings in the quality evaluation of sustainable food products; not all experts have positive attitudes towards sustainable food products and finally, the relative weakness of consumer organisations.

- Germany

The German report identifies four main groups of barriers for sustainable food products: unadjusted communication of sustainable contents, actual consumption and societal trends, lacking information and knowledge and finally, policy and lobbying.

The unadjusted communication concerns a saturation regarding ecological and environmental topics, environmental standards are thought to be granted and should be self-evident, there is no or little factual and rational information on these environment and ecology. These topics are furthermore connected with unpleasant emotions, but are also considered as form of a "green lifestyle". The second set of barriers is linked to the consumption trends that were discussed earlier such as the egoistic motivations (fun, joy, individualisation) versus ethically correct behaviour, smaller households and convenience food, low willingness to spend a lot of money on food and the uncomfortable and time intensive nature of sustainable consumption. The lacking information an knowledge concern mainly existing regulation and labels (which may lead to uncertainty and mistrust), food production and its anonymisation and the abstract nature of the term sustainability. The policy and lobbying barrier concerns the reluctance of policy to engage in alternative food production and marketing, the conventional farmer's associations want to confine organic in its niche and the agri-food industry and its lobbies endanger alternative food chains with their actual struggle for genetically modified organisms. There is also a danger that concentration on farm and processing level will destroy sustainable local food supply networks.

- Synthesis on the barriers for consumption of sustainable food products

Table 8 gives an overview of the barriers for sustainable consumption that were mentioned in the country reports in order to gain some insights on the similarities and differences between the 7 countries that participate in the SUSCHAIN-project. The reader has to interpret these results very carefully because a barrier can exist although not mentioned in the national report but many of the barriers are also closely related to each other.

Table 8. Overview of the barriers for the consumption of sustainable food products mentioned in the individual country reports

Barriers for the consumption of sustainable food	Countries						
	NL	UK	CH	IT	BE	LV	DE
Limited knowledge of agriculture, production processes; implication of food purchase decisions	X	X		X	X	X	X
Sustainability: logos and labelling, confusion, lack of information, authority, trust and credence	X	X		X	x		X
Availability of the products	X	X		X	X		
Consumers' decision process	X	X			X		
Price and justification of the premium	X	X	X	X	x	x	X
Necessity to respond to the consumers' needs		X			X		
Appearance and quality of the product			X	X			
Change is a slow process			X				
Ambivalence on the source of food		X					
Lack of transparency, anonymisation							X
Concentration destroys sustainable local supply networks							X
Limited purchasing power of the consumers						X	
Nature of the organic sector						X	
Attitude of actors in the FSC						X	

X: element mentioned in the national report; x: element indirectly mentioned in the national report

Price seems to be the most important barrier of sustainable products as it was (in)directly mentioned by all countries. The consumers perceive the price for sustainable products as being too high and this has several reasons. The country reports mention the low willingness to pay a price premium, a lack of insight on the origin of the price premium, the unfair comparison with non-sustainable products, etc.

A second barrier is the remoteness between production and consumption, as it was called in the Dutch report. It concerns the consumers' limited knowledge of agriculture and production processes and a lack of insight of the implications of food purchase decisions on the lower levels of the food supply chain. This lack of information does not only concern agricultural and food production, but in many countries there is also a lack of knowledge or confusion on the concept sustainability and the corresponding logos and labelling. A problem is that sustainability is a credence quality and this hampers the creation of authority and trust.

Another barrier that was rather generally mentioned in the national reports is the availability of sustainable products. These problems are related to problems of local food shops (difficult access, opening hours, …), the presence of sustainable products in

supermarkets as this is the major purchasing point of many consumers, but also to the continuous presence of products expected by the consumers.
Other elements that were mentioned more than once are the importance of the consumer's decision process with for example the problem of a negative attitude towards sustainable food products, the necessity to respond to consumers' needs (because it is otherwise unlikely that the consumer will buy the product) and finally the appearance and quality of the product. It is very doubtful that a consumer will be prepared to pay a higher price for a products that do not match his expectations.

These barriers are also identified in other countries and available literature. Briz & Al-Hadji (2003) for example indicate that the two main reasons for not consuming organic products are the lack of knowledge and confidence considering these products and the absence of organic produce in the consumers' frequently visited shops. Vindigni *et al.* (2002) state that, despite the green trend in consumer values and attitudes, there are still several important barriers to be overcome. The first one concerns the reluctance of the consumers to pay higher costs, not only in money, but also in time and effort. A second barrier is the unwillingness to accept sacrifices in the subjectively perceived quality of the sustainable variant. Finally, sustainable food consumption is also constrained by the complexity of the information related to the characteristics associated to products and the impact of the mode of production on the environment.

4.3 POSSIBILITIES TO REMOVE THE ABOVE-MENTIONED BARRIERS

Now that the main barriers for the consumption of sustainable food products are identified, the question is what can be done to remove or overcome this barriers. This will be the issue of the following paragraphs.

- The Netherlands

A closer relationship between consumption and production can be realised through the development and up-scaling of short supply chains, but in this process of up-scaling, there

is a risk of loosing transparency and involvement of consumers. A continuous and pro-active dialog between food supply chains and stakeholders can provide the needed transparency, information and trust (Van Bruchem, 2003). There should furthermore be a limited number of hallmarks which are simple and easy accessible. The barrier concerning the consumer decision process can be removed by giving a response to the consumer oriented market, for instance through differentiation and segmentation of sustainable products on other relevant attributes next to the sustainable aspects (Dagevos & Hansman, 1999); sustainable products should be in the evoked set of consumers as a part of the communication strategy. The price barrier can be overcome if non-buyers are persuaded to pay a higher price for sustainable products. Other possibilities are clustering and bundling of activities and up-scaling to reduce costs, enlarge the supply and governmental- and self-regulation tools for processing sustainability aspects into the consumer price. All discussed measures will eventually also lead to a better availability of the considered products (Hoogendoorn & Van der Eerden, 2003; LNV Consumentenplatform, 2003).

- United Kingdom

Some consumers are not interested in the origin of their food, but many more might be if they had greater access to suitable information. These differences between consumers are however an opportunity to target specific groups with particular messages. Improving consumer understanding about the origins of their food and the benefits of purchasing sustainable food products are important first steps in changing their attitude and subsequently their behaviour. Improving the visibility, consistency, credibility and simplicity of food labelling schemes is critical in this regard. It is however necessary to provide sustainable products in such a manner that the normal consumer demands in terms of availability, price, convenience, etc are satisfied, rather than attempting to fundamentally change shopping patterns. Another important element is the increase of the levels of sustainable food produce available in supermarkets, as these are the most important outlets, but without loosing the wider sustainability credentials of the product. This availability in the supermarket should also help to reduce the price premiums charged for sustainable produce, although care will again be needed to avoid adversely impacting on suppliers' margins.

- Switzerland

The communication on production methods is a hot topic but also a difficult issue in Switzerland. The retailers don't want to emphasise the specific environmental qualities of products in order to maintain their freedom to import conventional products but they also want to avoid damage to their own ecological hallmarks. The producers do not seek to propose this specific production mode which was imposed to them and which does not enable them to distinguish themselves. They make a traditional error to consider competition in a narrow way, limited only to their neighbours without seeing the more distant competitors, particularly import. A more institutional communication that insists on the specific "qualities" of the Swiss products rather than to call upon an abstracted national preference could increase the transparency and the confidence of the consumers. For PDO products, the fast progression of the notoriety of the label and the sales are very encouraging; but the question of the place in the store remains.

- Italy

The high price is an important barrier for sustainable products in Italy, but the solution is not a lowering of the price at consumption. The consumer should be helped to accept the higher price by referring it to the different, peculiar qualitative attributes of the products. It could be useful to adopt the principle of the "transparent price" in some cases to support the consumers' decisional process. Increasing knowledge on production methods and certification systems is certainly a fundamental aspect in the stimulation of consumption. This could be done through education and information programmes and by promoting the collective consumption of sustainable products in different occasions. Public institutions play a fundamental role in promoting programmes for training and development aimed at improving operators' organisational and managerial capacities. Other useful initiatives could be the organisation of informative campaigns or 'information points', in order to communicate with the consumers in a comprehensible language. Information should furthermore be directed towards raising the level of knowledge and information and work on the consumer's perception of the scarce availability of sustainable products. In order to improve the availability of sustainable products it is

important to overcome the inefficiencies at the distribution level, by improving co-ordination between producers and distributors.

- Belgium

The Belgian reports states that there are opportunities to remove the barriers if the driving forces of consumption behaviour can be changed. A first solution could be a change in the need-satisfying capacities of products to go from automated to reasoned information processing as certain previous-fulfilled needs may become unsatisfied when the need-satisfying capacities of non-sustainable products are reduced or the other way round. A change in the consumer's behavioural control could also have a positive impact. By means of subsidies and propagation for sustainable products and taxes for non-sustainable products, the stimulation of sustainable consumption could be supported as the price premium and the negative attitude will decrease. Education and providing information is another strategy, as that will remove the uncertainty. A final solution to the barriers for sustainable consumption is the increase in availability of sustainable products.

- Latvia

Economic reasons seem to be the major obstacles that will prevent the overcoming of barriers in the near future. At the same time, there is a lack of necessary market information among the involved actors and as a result, it is impossible to evaluate all opportunities and risks in producing and selling sustainable food products. Collective marketing initiatives can however increase interest and demand of organic products and improve co-operation between farmers and sellers of organic products (Graudins, 2003; Tisenkopfs & Sumane, 2000).

- Germany

The possibilities to remove the barriers are grouped in the same categories as before. Communication can be improved through an exact identification of different target that are addressed in a different way (alignment of the target constellation: group – consumption behaviour – message – product); connection between entertainment and ecology to transfer the complexity of sustainability; re-launch of the terms "sustainable" and "bio" to get a new image and to be connected more with hedonistic aspects;

communication of sustainability should incorporate the approach of sufficiency; linking of the higher price with an emotional message and from the sustainability concept with social aspects; identification of life and consumption styles to develop adequate, adapted communication tools and finally, the communication on regional origin is a promising way to enhance sustainable product sales. Information and knowledge can be improved by new strategies for the transfer and management of knowledge, implementation of quality and security systems with common national labels, reinforcement of education and consumer advisory systems and improvement of the image of organic food using the heath and wellness trend. Another solution is more professionalism of alternative food channels; use of different distribution channels and levels, intensive personal communication and systematic cooperation of all actors inside the chain. Concerning policy and lobbying, the political support should be strengthened (agricultural policy measures and consequent attitude of the politicians), establishing links to health orientation, extended rural development and stakeholders assume a high potential to communicate sustainability in an effective way.

- Synthesis on the possibilities to remove above-mentioned barriers

An overview of the proposed measures to overcome barriers for sustainable food consumption is given in Table 9. The measures are hereby grouped as possibilities to remove five different (groups of) barriers: the price barrier, limited knowledge, consumer decision-making process and needs, confusion about logos and labelling and, finally, the availability of sustainable products. There has to be repeated that this table is only an aid to summarize the national findings and that it has to be interpreted with the greatest care.

Most of the proposed measures concern the limited knowledge of the consumers of agricultural and food production; in some cases this is however extended to a limited knowledge of all actors in the chain. Almost all national reports agree that important elements hereby are education and providing information without specification of its nature. Other elements that could improve the knowledge are the stimulation of alternative food supply chains and a greater access to suitable information. The Swiss case is a very particular one as almost the entire agriculture meets prescriptions

concerning ecological sustainability, but the discussion remains if this should be communicated to the consumers.

Table 9. Overview of the proposed measures to overcome barriers for the consumption of sustainable food products

Possibilities to remove barriers	Countries						
	NL	UK	CH	IT	BE	LV	DE
Price barrier							
Convince non-buyers to pay a higher price	X			X			
Reduce costs	X						
Governmental- and self-regulation tools	X	X			X		
Transparent price				X			
Link higher price with emotional benefits							X
Limited knowledge							
Stimulation of development, up-scaling and professionalisation alternative FSCs	X						X
Greater access to suitable information		X					
Education or providing information			X	X	X		X
Highlighting/ promoting wider benefits to improve understanding		X					
Discussion on communication about production method			X				
Provide necessary market information						X	
Consumer's decision-making process and needs							
Differentiation and segmenting	X	X					X
Generating consumer interest		X					
Ability to satisfy consumer demands		X			X		
Influence through information				X			X
Confusion about logos and labels							
Continuous and pro-active dialog between stakeholders	X						
Limited number of hallmarks that are simple and easy accessible	X						
Implementation of quality and security systems with common national labels							X
Better visibility, consistency, credibility and simplicity		X					
Improve knowledge on certification systems				X			
Availability of sustainable products							
Improve the availability of sustainable products	X	X	X	X	X		
Other measures							
Policy measures such as political support, improvement rural development…							X
Promotion of different occasions to consume sustainable products by creating synergies with other initiatives of rural development	X						
Evaluation of opportunities and risks in producing and selling sustainable food products						X	
Collective marketing initiatives						X	

In previous paragraphs, the higher price and price premium of sustainable products were quoted more than once as the most important barriers for sustainable consumption and

there are also several measures proposed to overcome this barrier. Governmental intervention and self-regulation are the tools that were most frequently mentioned. Examples are subsidies for sustainable and taxes for non-sustainable products, internalisation of sustainability aspects in price setting and a greater availability of sustainable products in supermarkets which will lead to a price reduction. Other possibilities are that non-buyers are persuaded of the value of sustainable products and become willing to pay a higher price for these products; a reduction of production costs through collaboration between actors and FSCs and finally, the concept of 'transparent price' could also be useful.

The measures to limit the confusion about logos and labels are all different, but still they aim at a better understanding by the consumer. This can be done through a continuous dialog, better contact, limitation of the number of sustainability hallmarks and improved knowledge.

The increased availability of sustainable products is also frequently mentioned by the national reports, but this is not the case for the way in which this can be achieved. It is however a fact that many of the measures don't work on one single barrier, but also have effects on other barriers. If the consumer demand for sustainable products for example grows, because the consumer are better informed and prepared to pay the inevitable (but perhaps lower) price premium, the availability in supermarkets will grow as these actors don't want to loose their market share.

The proposed possibilities envisage to change consumer decision-making from automated to reasoned processing and from social to individual processing. After deliberation and consequently the purchase of a sustainable product, consumers will need heuristics to develop a new routine in buying these sustainable products. Heuristics are hereby defined as behavioural rules that are used to reduce complex themes to a level that can be used in consumers' daily life.

5 Strategies to stimulate sustainable consumption

- The Netherlands

The Dutch report states that there is not one strategy to stimulate sustainable consumption, but a multitude of various; an exactly balanced mixture of strategies is therefore crucial and likely to enclose five elements: regulation, differentiation of supply, combinations and synergy, process dynamics and availability.

Public values and interests like environment and animal welfare are very difficult to influence; regulation is therefore needed and recommendable. Sustainable production can also be stimulated through regulation. Furthermore, 'the' consumer does not exist and so a differentiated strategy is needed for the marketing of sustainable products. Another possibility is the strengthening of the marketing of sustainable products through combination, synergy and interlocking with other activities and projects. Co-operation within chains, clustering of activities of small initiatives may also have substantial positive effects on the efficiency of SFSCs. Fourth, sustainability is a process and it only makes sense to talk about sustainability of FSCs in relation with the specific relevant context. A diversity of strategies is important, because it creates adaptability and flexibility, and a prerequisite for the creation of sustainability on the long term. The last element concerns the availability of sustainable products and this can be improved as a result of the cooperation between different initiatives and the occurrence of new marketing channels.

- United Kingdom

The UK report analyses the strategies to stimulate sustainable products guided by the marketing mix.

The first remark is that the product should be intrinsically sustainable; the sustainability attributes need to be consistently applied, and apparent throughout the FSC. The packaging and image of the product should also be consistent with its sustainability. The barrier of the price premium can be overcome by selling the sustainable products in the supermarket, so that the quantity sold increases and the unit price comes down as a result. This could be stimulated by the government, e.g. if the retailers need to have a certain percentage of sustainable products in their assortment. Another element of

fundamental importance is to improve the promotion of sustainable food products and so allow more consumers to consider whether they wish to pay for the 'sustainability' attributes of the produce they are buying. The multiple retailers potentially have a crucial role in this respect. It is, in terms of quantity, in the supermarkets where marketing incentives to increase the consumption of sustainable food products should be aimed, although this should not preclude improving consumer access to sustainable products through more localised outlets. The human aspect is also relevant in the context of more localised stores, as consumers are able to attain higher levels of personal and human-level assurance and interaction than is normally available in supermarkets.

- Switzerland

The Swiss report describes two possible scenarios for the future of sustainable products and their consumption.

The first scenario is **the status quo**. It includes progression of retailer's brands on market segments for specific ecological labels; there will be a progression of the label max Havelaar, whose marketing is professional and supported by the distributors; furthermore, the progression of the AOC, whose fame and capital of image are good in particular in French-speaking Switzerland, is noticed. The market share of conventional products (with a mixture of Swiss and unguaranteed imported products) will remain very high (more than 80%).

The second scenario concerns the **voluntary development of marketing channels for products that respect the required ecological services**. This scenario will include institutional campaigns with a simple and repeated message, public relations, labelling of the products, alliances with national hallmarks of processed food products. The integration of the message in the public health campaigns and the programs of the schools could also cause an awakening in the households. In this case, the organic products could progress less quickly but the volume of products guaranteed to the consumer would be overall higher. Moreover, this could support a preference for the Swiss products founded on solid arguments.

- Italy

According to the Italian situation, the possible strategies to stimulate sustainable consumption are various, strongly integrated and traceable to different fields of action: the availability of sustainable products, their adequacy in terms of sustainability attributes, the communication to consumers, the promotion of sustainable products, the policies and the other forms of public involvement. Important elements for the availability are the presence of different distribution channels, adequate volumes of produce and continuity of supply. That implicates the improvement of co-ordination among producers and distributors, but there is also a need for technologies suitable for small scale production systems. The adequacy of sustainable products concerns the presence and consistency of the sustainability attributes and the consumers' needs satisfying capacity. This adequacy represents a necessary condition for the achievement of new consumption models. Involvement of consumers in the process of development is important and therefore attention should be paid to communication and education of consumers. Public institutions play hereby a relevant role by defining an adequate certification system, but they contribute to the change of attitudes and behavioural patterns. Actions aimed at promoting sustainable products directly in the places of purchase, the synergies with other initiatives of safeguarding/promotion of the rural resources are furthermore particularly relevant. The role of policy measures in creating favourable conditions to sustainable production and promoting consumption is also important.

- Belgium

A coherent and integrated marketing mix for sustainable products is the guide for the strategies in the Belgian report. A first requirement is that the product is intrinsically sustainable or contains some sustainable aspects, but the other product attributes (packaging, branding or labelling and product image) should also match the sustainable character. The price barrier can be diminished with policy measures such as a system of taxes or incentives, if necessary combined with support measures of sustainable production practices. Sustainable products can be promoted to the broader public through communication efforts such as providing information. The message has to correspond with the real features and the effective need-satisfying capacity of sustainable products, since the consumption experience of sustainable products will have a feedback

impact on the attitude and the needs and motivations of consumers. Another element is the availability of the products and the consumers' usual place of purchase. Efforts in terms of logistics and transport, as well as the broader distribution policy including intensity, chain management and organisation can stimulate the availability.

- Latvia

Scientist agree that at least 3% of the products should be produced in organic agriculture; there are at this moment no indicators developed for a preferable development of organic farming but the Ministry of Agriculture is working on a program for the development of organic farming. Another priority in the organic sector is the organisation of cooperatives, because this will allow a better delivering of organic farm products to shops, marketplaces and the public catering sector. Cooperatives are needed for the processing and storing of products, but also for the buying up and packing to guarantee a continuous supply to the retailers. Third priority is the promotion of products and the bolstering of consumers' confidence. Objective and full information should be provided to retailers and consumers. Furthermore, all available channels should be used to sell sustainable food products; but according to experts, there is a need for a retail chain organised by the producers themselves. A discussion that occurs at this moment is whether the sustainable food produce should be exported to Western European countries or that the focus should be on the local market.

- Germany

The German strategies are targeted on two main groups: with regard to alternative food supply chains and with regard to societal developments and policy / stakeholder action. Measures for the first group are to enable alternative market chain actors to communicate professionally on the value added of sustainable food, to encourage improvement in processing and distribution in order to stabilize higher levels of consumption, to train actors in modern applied marketing, to encourage Eco-audits and other certification systems and to enhance the vertical linkage and the networking. Strategies aimed at the second group are giving a face to sustainability, encouraging the (timid) tendency towards neo-ruralism, food ethics as an upcoming trend, strengthening of positive competition in the food sector, math the Germans supermarket chains' desperate

search for identification / profile cues with the offer of a sustainable range, more consequent attitude of politicians, development of sustainability criteria for food production, material flows and supply chains and a more consequent discussion on the internalisation of external costs of unsustainable FSC and a more long-term work on values, information and knowledge about food and agriculture.

- Synthesis on strategies to stimulate sustainable consumption

An overview of the different strategies to improve or stimulate sustainable consumption is given in Table 10. Three elements occur in several country reports: the improved availability of sustainable products, the need for police involvement and the provision of information. Although these issues are not mentioned directly by all reports, they are particularly relevant for most of the countries.

Table 10. Overview of the strategies to stimulate sustainable consumption

Strategies to stimulate sustainable consumption	Countries						
	NL	UK	CH	IT	BE	LV	DE
Improved availability - also in supermarkets	X	X		X	X	X	X
Overcome price issues		X					
Sustainability of the entire product and marketing		X		X	X		X
Policy involvement	X	X		X	X		X
Differentiation of supply	X						
Looking for combinations and synergy (networking)	X					X	X
Process dynamics of sustainability	X						
Scenarios: status quo and voluntary marketing			X				
Providing information				X	X	X	X
Program for the development of organic farming						X	
Train actors in modern applied marketing, to communicate professionally							X

It was already clear from the previous paragraphs that the availability of sustainable products is a major problem and it is therefore not surprising that this is mentioned as a major strategy to improve sustainable consumptions. Several country reports mention thereby that it is important that these produce are present in all marketing channels and thus also in supermarkets. A major condition hereby is a changed perception from the big retailers, in many cases combined with a better organisation of the producers to provide

enough products at the right time. The example of fair trade products, which are in several countries present in the supermarkets, shows that this type of broader availability is possible. There is of course also the danger this will lead to unwanted side effects; e.g. the presence of many foreign sustainable products in the supermarkets.

A second element that deserves attention is information. At was shown several times in this report that the average consumer is unaware of the agricultural production practices and has also limited knowledge of food production, the concept of sustainability and so on. A major strategy should thus be to provide information to the consumers about all these issues. A side-effect could be that a better informed consumer is willing to pay a higher price for sustainable products as he can now assess the benefits of these products and the reasons for the price premium.

A last element concerns the policy involvement in the process of promoting sustainable production and consumption. It was mentioned several times that the government has its responsibilities to create a better context for sustainable production and should also give incentives to motivate the consumer to buy sustainable products. A broad set of tools and measures can be used for this, as well on the level of agricultural production as consumption and on the other levels in the food supply chain.

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