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On the European Commission's Green Paper "Healthy Diets and Physical Activity"

Briefing Note

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EXECUTIVE SUMMARY

1. Obesity in the EU: the relevance of socio-economic factors and possible EU actions.

Economic conditions – through food supply – have a remarkable influence on nutrition, although the latter one is an *a priori* biological category. Socio-economic factors determine nutritional habits and conscious nutritional intentions and limit individual choice. The differences in food prices, mostly affecting interchangeable foods (e.g. poultry, pork or beef), greatly influence the structure of food consumption. Low-income groups predominantly have a greater tendency to consume unbalanced diets and have a low intake of fruits and vegetables. This may on the one hand cause under-nutrition and qualitative starvation and in particular usually results in micronutrient deficiency. On the other hand, this may lead to over-nutrition resulting in overweight and obesity. There are many aspects of food scarcity, but the main obstacles to following a balanced, healthy diet are cost, accessibility and knowledge. Therefore, information and nutritional education play a crucial role in improving the diet (nutrition) of people in low-income groups.

Some of the results of EU programmes and actions on the study of socio-economic factors influencing obesity and healthy lifestyles are worthy of attention. It is important to study the nutritional knowledge of poor, vulnerable and endangered groups; in order to quantify the global cost of obesity in social, economic, socio-psychological terms and by studying the causes, devise remedies.

2. Actions to promote physical activity in Hungary.

In November 2004, the Hungarian Ministry of Health launched the "National Strategy of Healthy Nutrition, Food Safety and Regular Physical Activity", based on a WHO initiative. The strategy is aimed at the whole population but emphasis has been placed on children, adolescents, young adults, families, elderly people, small communities and people in disadvantageous conditions.

Encouraged by the EU Platform on "Diet, Physical Activity and Health", the Federation of Hungarian Food Industries was launched to create the "Hungarian Platform on Nutrition, Lifestyle and Physical Activity". The Federation has managed to involve stakeholders from food science, nutritional science, sport medicine, obesity science organisations, representatives of the food industry, and other interested groups in the activities. It brings together, organisations, corporations and individuals to promote a healthy diet and physical activity; by encouraging common reflections and joint endeavours, in line with the EU programme currently being set up.

3. Practices and policies that can be disseminated at the EU level.

Proper nutrition must be learnt as seriously as reading and writing. It is not a genetically inherited knowledge. The teaching of nutrition should begin in kindergarten and continue in primary and secondary school. *For qualified professionals, the contribution of an EU manual on nutritional education for the general population may be proposed.*

4. Commercial communications and childhood obesity.

Primary prevention strategies include the encouragement of a healthy, active lifestyle to prevent adiposity in order to maintain a good health status. The first step is to diminish the unfavourable aftermath of an "obesogenic environment". Such environment comprises nutritional behaviour, the lifestyle of the family, the social environment and the school environment.

Several factors actively influence the nutritional habits of children, such as information or advertising from the actors in the food industry, such as producers, food suppliers and caterers. One of the best primary prevention tools *for qualified instructors/dieticians is* the *education of children, family members and teachers. Small, voluntary civil groups could be created with the support of practitioners, dieticians or teachers.* According to experience made in several countries, the *guidelines for school catering, improved school lunch programmes and improved supply in school kiosks and vending machines form some useful tools in the domain of nutritional education* and *the development of healthy nutritional behaviour. The elaboration of common principles could be a joint task on EU level. Teachers' training is the next important step,* as school teachers are generally not familiar with their pupils' nutritional needs.

S*econdary prevention means the treatment of obesity* through behavioural therapy, the modification of dietary intake and the promotion of physical activity, or to be more precise, of an active lifestyle.

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1 OBESITY IN THE EU: THE RELEVANCE OF SOCIO-ECONOMIC FACTORS AND THE POSSIBLE EU ACTIONS

Economic conditions have a remarkable influence on nutrition through food supply although the latter is an *a priori* biological category. The socio-economic factors determine nutritional habits, conscious nutritional intentions and limit individual choice. The influence of economic conditions could be measured by the use of "income elasticity" and "dietary efficiency" [(1)]. The latter indicators serve as a background for proposition of diets of different price categories, in line with the nutritional physiological optimum. Households have an important economic role to play because of the time spent on purchasing food and preparing meals. In general, the GNP/capita values determine the proportion of nutrients in the diet (that means the risk and frequency of diet-related diseases). Fluctuation in food prices has a big impact on the diet of low income families. Their diet consists mainly of cheap foods and is monotonous, resulting in qualitative starvation. Differences in food prices, mainly in foods that may be replaced with others, substantially influence the structure of food consumption. Changes in the price of meat (beef, pork and poultry) often lead to the consumption of meat with the least price fluctuations. Inequalities in income show a strong correlation with the health status of the population and, furthermore, with the lifestyle and the features of nutrition (*Robin Hood index, Gini coefficient)*[(2, 3)].Economic factors and the unfavourable effects on peoples' health status and nutrition therefore need to be taken into consideration.

In developed countries, socio-economic status and health concerns are strongly related. It is therefore important to understand to what extent social status may affect children's development. An inverse relationship has clearly been demonstrated between the socio-economic level and the prevalence of obesity in adults. In the case of children, results are less consistent. In adults, the socio-economic status may be either a cause or a result of obesity. Conversely, in children, the causal relationship between the socio-economic status and obesity is relatively easy to analyse, since children's socio-economic status only depends on that of the parents. However, the impact of a low socio-economic status on poor health seems to be more complicated and is influenced by several factors. Some of them may be modified, e.g. by the environment and by social and community networks, and more importantly, by lifestyle factors and health behaviours. Other factors such as age and gender, however, are of no concern. The macro- and microeconomic, familial and individual factors influencing food security and nutritional feasibility are surveyed in Annex I. Different nutritional habits, different food and nutrient intakes vary in the different social classes. Low-income groups have a greater tendency to consume unbalanced diets and have a low intake of fruits and vegetables [(4)]. This may, on the one hand, cause under-nutrition and qualitative starvation and in particular usually results in micronutrient deficiency. On the other hand, this may lead to over-nutrition (over-intake of energy resulting in overweight and obesity), depending on age, gender and level of deprivation. This means that obesity is not at all a privilege of prosperous people who have access to food in huge amounts.

There are many aspects of food scarcity but the main obstacles to follow a balanced and healthy diet are cost, accessibility and knowledge. Information and nutritional education therefore play a crucial role in encouraging a healthier diet among low-income populations [(5)]. The intake of energy-rich, nutrient-poor (mainly micronutrient-poor) foods is a consequence of lack of money. The price of foods suitable for keeping a healthy diet appears to be a highly important factor in low-income areas.

Moreover, the lack of proper cooking facilities in households increases the need to eat “convenience” or “take-away” meals which have a potentially higher energy density.

There are several factors that can limit the purchase and preparation of meals from adequate basic ingredients: such as the lack of knowledge or confusing and conflicting messages and information on diet and health, the lack of motivation or loss of cooking skills. Education and income level determine food choices and attitudes that can ultimately lead to a higher risk of diet-related diseases. The factors influencing our food choice are not only the results of individual preferences but are also determined by social, cultural and economic circumstances. The population at large faces many barriers to dietary change, which can be tackled with the help of tools borrowed from social psychology. It is not easy to change dietary practices. This requires a change of habits that have been built up over a long period, perhaps even from infancy or childhood. The lack of knowledge about the importance of healthy eating is not perceived by consumers as the main barrier to dietary change, although it is. Furthermore, people have difficulties in understanding food-packaging labels and the concept of a portion size, and they also lack knowledge about how to balance diets. Nutrition education initiatives should therefore be taken to enable people to make conscious decisions.

Theoretically, two types of household food insecurity exist - ***chronic*** and ***transitory*** - but they seem to be intertwined. "Chronic food insecurity" is rooted in poverty. "Transitory food insecurity" is a temporary decline in the household’s access to the food needed, due to factors such as the instability of food prices, products or incomes. It is typically the chronically food insecure (poor) who are hit hardest by transitory food insecurity” [(6)]. The most important determinant of household food insecurity is poverty, which is an even more common occurrence in the new Member States, where the gap between income and prices, and the capability to purchase food is widening [(7)]. All this means that people buy cheaper foods, and as a consequence, variety in nutrition is lost and nutrition becomes dull and deficient in certain nutrients - especially in micronutrients. Energy intake remains sufficient or even abundant; which in turn can lead to the prevalence of more overweight or obese persons. These effects are bolstered by confusion concerning food production and an inadequate food supply.

There is an interesting and important phenomenon concerning the improvement of economic conditions of people living below sustenance level. The nutrition of families with incomes below sustenance level is characterised worldwide by them buying mainly meat from their remaining money and neglecting vegetables, as they are considered less valuable. Their diet is thus deficient in protective agents from foods of plant origin.

Food security and nutritional well-being must thus be created together, ensuring the availability of foods and harmony between income and prices, as well as an adequate food choice and suitable methods for preparation and processing food. All these factors, including nutritional knowledge, have an influence in changing unhealthy nutritional habits, beliefs, food preferences as well as in the improvement of the nutritional status and thereby, also the individual's health status. To broaden the nutritional knowledge of the population is thus an important element of any present and future actions.

As for the studying of socio-economic factors influencing obesity and healthy lifestyles to be conducted in the framework of EU programmes and actions, the following research topics are worthy of attention:

- There are few data focusing on the nutritional habits of the poor, vulnerable and endangered groups. It is important to collect information about their nutritional knowledge; how they consider their own nutritional condition, how they see their future nutrition/nutritional habits if they possessed better purchasing power;

- Obesity is an individual problem of community size. Obese people suffer from repercussions of ill health. The economic and public health consequences however, concern the entire society.

2 ACTIONS TO PROMOTE PHYSICAL ACTIVITIES

2.1 The WHO initiative

The 57th World Health Assembly adopted the decision (WHA 57.17) on "Global Strategy on Diet, Physical Activity and Health" on 22nd May 2004. This document highlights the following main topics:

- to reduce the nutritional risk factors,

- to increase the awareness and understanding of the influence of diet and physical activity on health,

- to encourage the implementation of global, regional, national and community policies to improve diet,

- to monitor scientific data, to support research on diet and physical activity, and to strengthen human resources needed in this domain.

The resolution urges Member States to develop implement and evaluate actions that promote individual and community health through healthy diet, physical activity, and lifestyles including the same factors, foster the balance of energy intake and expenditure, and reduce the risks and incidence of diet-related non-communicable diseases. The following issues should be defined for this purpose, consistent with national circumstances: the national goals and objectives, a realistic timetable for their achievement and accurate monitoring of action.

It would be desirable to mobilize scientific, professional, non-governmental, voluntary, private-sector, civil society and industrial associations for the sake of the above-mentioned aims, and moreover, to encourage the individual's responsibility for his or her health through the adoption of a beneficial lifestyle. Unhealthy diet and physical inactivity are among the leading causes of major non-communicable diseases such as cardiovascular disease, 'type 2' diabetes, certain types of cancer and osteoporosis.

2.2 The National Strategy of Hungarian Ministry of Health

In November 2004 the Hungarian Ministry of Health launched the "National Strategy of Healthy Nutrition, Food Safety and Regular Physical Activity", based on the WHO initiative. The aims of the three fields are as follows:

Nutrition

- Production of raw foods suitable to achieve healthy nutrition, according to the principles of food safety ("from farm to fork") and environmental protection.
- Success of healthy nutrition and food safety in mass catering, hospitality industry, household eating.
- Food security for all families and individuals.
- Healthy start in life – merely breast-feeding in the first six months.

Food safety

- Spreading of knowledge on food safety.
- Improvement of hygienic level and expectations both in food production and private households.
- Getting to know the food safety issues, diets advised in balanced nutrition and new technologies.
- Market control, consumer information.

Physical activity

- Regular daily physical activity (30-60 min), 2-3 times/week free time sports (for elderly people 1-2 times/week).
- In schools: physical activity everyday; in colleges and universities: implementation of regular physical activity for students.
- Improvement of life quality by means of physical activity and free time sports.
- To activate not sporting population groups (small settlements, housing estates).
- Enlargement of leisure time sports, improvement of opportunities for sports.
- Support of and collaboration with civil organizations dealing with free time sports.

- Complex, wide leisure time sports programmes.

Target groups

The target group of the strategy is the entire population but the following groups are emphasized:

- children and adolescents,
- young adults,
- families,
- elderly people,
- people having disadvantageous conditions, and
- small communities (domiciles, workplaces).

The particular tools for the implementation of the three activity fields have been enumerated. In the case of nutrition the following items are mentioned:

- foods with improved composition (lower salt, saturated fat, cholesterol and sugar content; higher dietary fibre and micronutrient content),
- decrease of salt content in bread and bakery products,
- more information on food labels for the sake of healthy nutrition,
- larger choice of whole-meal cereal products, fruits and vegetables,
- larger choice of foods with decreased energy content,
- introduction of smaller packs for sweets, candies, beer etc.

2.3 The EU Platform

The International Obesity Task Force, in collaboration with the European Association for the Study of Obesity prepared a briefing paper on "EU Platform on Diet, Physical Activity and Health", which was launched on 15 March 2005 (IP/05/292).

The authors of the short but comprehensive paper dealt with the European obesity epidemic. They focussed on children, on the rising trend of childhood (and adulthood) obesity and they showed interesting statistical data (see Annex II). The Platform is part of an overall strategy on nutrition and physical activity. All stakeholders from the food production sector, retail and catering sectors, health professionals, national and local governments, and civil society have a responsibility in promoting healthier eating and more physical activity. The Platform brings together the key EU-level representatives, among them the European Commission. The founding members called for action on the following five fields:

- consumer information, including labelling,
- nutritional education,

- promotion of physical activity,
- marketing and advertising, and
- composition of foods, availability of healthy food options, and portion sizes.

The key principle is that the activity of Platform should go beyond what they are already doing, mainly in the fight against obesity. One emphasizes that the Platform is one of several initiatives currently underway.

2.4 European Technology Platform Food for Life

The EU Platform is not the only initiative that is connected with food and nutrition. The "European Technology Platform on Food for Life" (see Annex III) outlines the future perspectives beyond 2020. This programme has clear economic targets. However; other aspects are included, namely to facilitate the choice of food needed for a balanced diet, and thereby reducing the costs of medical care and strengthening the consumers' trust in food supply. The Technology Platform will ensure that a healthy choice becomes an easy choice.

2.5 The Hungarian Platform on Nutrition, Lifestyle and Physical Activity

Encouraged by the EU Platform, the Federation of Hungarian Food Industries has initiated the creation of the "Hungarian Platform on Nutrition, Lifestyle and Physical Activity". The Federation has managed to involve the stakeholders from food science, nutritional science, sport medicine, obesity science, the representatives of food industry and other interested parties. The EU Platform forms the basis of the Hungarian Platform, having the following aims:

- concentration of endeavours for favourable changes in nutrition and physical activity,
- common thinking and reflections,
- joint activity,
- harmonisation with the EU programme.

The professionals of the Federation consulted the leaders of the Irish, the German, the Spanish and the Dutch programmes, studied their experience and adopted their results. At the moment the activity of Hungarian Platform involves:

- the monitoring of new scientific results,
- advancement of research in the domain of obesity and food composition,
- nutritional education,
- information to consumers,
- marketing, communication, and
- physical activity in schools and workplaces.

The programme is currently in the set-up phase.

The active work of the Platform will certainly tackle the lack of physical activity. According to the plans, a kick-off meeting will be organized as a first step for interested medical and industrial professionals on relationships between nutrition and physical activity, on the importance of the balance between the energy content of foods and the energy producing metabolic processes, i.e. energy expenditure, with particular regard to muscle activity. This will be followed – with the support of mass media – by a series of information sessions for ordinary citizens on the same topic, which is easy to understand: e.g. “how does the energy from pizza develop for a sprint to catch the tramway” or “how much food is needed or may be consumed to cover the energy used during the day without weight gain or loss”.

The food industry will organise regular short breaks for physical activity at the workplace (even daily), giving wide publicity to this issue. The next stage would be the physical activities arranged by the food industry (factories) for the whole population, such as fast walking, running, nature tourism, cycling, swimming or other types of exercise. This movement could run across the country like a wave, across different settlements, in variable time, and then it could start once again with a frequency adjusted to the local circumstances.

The Platform is open for any organisation or person committed to its objectives. It is not a society with strict constitution or bylaws but a forum for free collaboration between people and associations that have joined voluntarily. The Federation of Hungarian Food Industries constitutes the heart of the Platform.

3 PRACTICES AND POLICIES THAT CAN BE DISSEMINATED AT THE EU LEVEL

Clear information to consumers is a crucial element in the realisation and encouragement of a healthy diet and adequate physical activity. The information may be disseminated in three ways: by nutritional teaching, by nutritional education and by communication of scientific results.

3.1 Nutritional teaching and education

Keeping balanced healthy nutritional habits must be learnt as seriously as reading and writing. It is not a skill genetically inherited. Teaching of nutrition begins in kindergarten and continues in primary and secondary school. Children should know the food groups, the physiology of nutrients, the basic metabolic pathways and the principles of a healthy and balanced diet. They should be able to judge misinformation and to choose the foods and meals suitable for keeping healthy nutritional habits. This must be seen as (will be the result of) a long, comprehensive teaching process. Broadening the nutritional knowledge of the population is extremely important. According to my present information, nutrition is not included anywhere in the schools' programmes in Europe. Teaching adults about nutrition is rather complicated issue, but basic nutritional knowledge is a prerequisite for any efforts to be efficient in this area.

The major aims of nutritional teaching and education are

- the development of a healthy nutritional attitude,
- the attainment of basic nutritional knowledge, and
- the development of the skills about everyday healthy eating.

The main fields of activity in kindergartens regarding nutritional issues are:

- using the catering as a tool for a healthy nutritional model,
- the acquisition of likes (and dislikes) for foods, i.e. development of nutritional behaviour,
- eating exemplary models of educators/kindergarten teachers, and
- playful attainment of some nutritional knowledge.

The elements of nutritional training in schools are:

- continuation of work started in kindergarten: conscious development of nutritional behaviour (school catering, eating exemplary model of teachers),
- gradual broadening of nutritional knowledge,
- the role of food in individual life,
- the role of food in community life,
- the human biological functions of food ingredients,

- defaults in nutrition and its consequences,
- the right choice of foods,
- the balanced nutrition,
- the recognition of improper nutrition,
- the importance of balanced nutrition in the promotion of health, and
- the importance of health for the individual and for the society.

3.2 Communication of scientific results

Communication of new scientific research and findings must be clear, as it strengthens the trust in recommendations based on nutritional science.

Correct nutritional communication must:

- formulate advice that are simple to understand and implement,
- avoid using jargon of nutritional science,
- react quickly to the continuous misinformation,
- use the results of the latest scientific literature,
- be connected with current lifestyle trends, avoid swimming against the tide,
- provide positive messages (under influence of constant proclamation of danger about food people will believe that nothing is really dangerous),
- avoid arguing in front of the target group with other professionals about subjects that have been discussed for years without reaching any consensus,
- remain always inside the area of nutritional expertise, and
- be brief.

Food and nutrition experts need to take an active role in helping the population obtain the right information and help them recognize misinformation. The spreading of food and nutritional information must be seen as a long-term and never ending challenge. Qualified medical professionals and dieticians, together with other members of the health-care sector, educators and representatives of the food industry can be a forceful voice in the efforts to obtain/promote a balanced nutrition pattern, and to avoid food and nutrition misinformation.

No opportunity can me missed: writing letters to newspaper and magazine editors to counter inaccurate, biased articles, calling for the prevention of TV and radio interviews with nutritional extremists or purveyors of misinformation and express professional concerns, directing the news media and consumers to responsible sources of nutritional information, encouraging researchers to present their results with a balanced perspective, collaboration with the food industry to provide reliable nutritional information, cooperating with other practitioners to invalidate misinformation, misbelieves, frauds, and quackery before they are widely accepted.

The creation of an EU manual on nutritional education for the whole population is an option to be considered. The manual should contain the preconditions, the methods, the managing, the functioning, and the required feedback of nutritional education. There is no doubt about the truth of the statement of former director of the FAO Food and Nutrition Division, J. Lupien, saying: "There is much to be done in the way of education. Changing people's eating habits is extremely difficult".

Another important question to look into is the misinterpretation of scientific studies. Scientific results alone do not eliminate the mind-darkness/ lack of knowledge/ ignorance regarding nutrition. Legitimate research findings often turn into sale pitches. Therefore, researchers who release information about their studies to the media must be cautious in the presentation. The scientific evidence or result is the final outcome of a long process. "…An association between two events is not the same as a cause and effect. Or demonstrating one link in a postulated chain of events does not mean that the whole chain is proved. Probabilities are not the same as certainties. And the way a scientific result is framed can greatly affect its impact…" [(8)]. However, the dissemination of nutritional information is best done through a proper interpretation of scientific studies by qualified nutrition professionals. They must know how to interpret research findings and communicate them to the public. Self-appointed false nutritionists or nutritional wizards should be kept at bay: they are not suited to do this job. Health professionals must also recognize that scientific studies will always be open to different interpretations; there may not be one single view or clear scientific consensus on an issue for many years to come. One of the major characteristics of science is the capacity to develop, change, and accept new evidence.

4 COMMERCIAL COMMUNICATIONS AND CHILDHOOD OBESITY

The health risks of obesity for European children are similar to those reported for in American children and adolescents. In obese children the accumulation of body fat mainly occurs at subcutaneous sites, whereas in adolescents, as in adults, fat is deposited viscerally, a pattern associated with an increased risk of metabolic disorders. The adverse effects of obesity in children include both physical and psychosocial problems. Childhood obesity, after three years of age, is associated with an increased risk of adult obesity, with a persistence of metabolic abnormalities and increased risk of cardiovascular disease and certain cancers. The early consequences include endocrine and metabolic disturbances. In obese boys endocrine changes may cause delayed genital maturation, in girls engender hirsutism and acne. Childhood obesity may be associated with hyperinsulinaemia and impaired glucose tolerance, early signs of non-insulin dependent 'type 2' diabetes.
The increased number of obese adolescents runs parallel to a higher prevalence of type 2 diabetes, abnormalities in blood lipids and raised blood pressure have been found in obese children. Weight reduction can significantly decrease the metabolic risk factors, especially when abdominal fat is lost.
Childhood obesity is associated with the impairment of physical mobility; furthermore, with that of immune response (increased susceptibility to infections), and can lead to sleep apnoea and deficits in the neurocognitive ability. Obese children are more likely than children with normal weight to become obese adults; obesity in the second decade of life is a strong predictor of adult obesity.

Overall, there is considerable evidence that the prevalence of childhood overweight and obesity is increasing in Europe. Trends suggest that the increase started in the eighties, and since then the number of extremely obese children and adolescents is increasing even further.

In the fight against childhood obesity, the methods both of primary and secondary prevention may be applied. First of all the implementation of primary prevention strategies should be emphasized because of well known difficulties to treat obesity and to achieve a long-term success. Once obesity has developed, losing weight does not cure health problems.

4.1 Primary prevention of childhood obesity

Primary prevention strategies include a healthy, active lifestyle which enables children to reach and maintain a desirable body weight, to prevent adiposity and to protect a good health status. Primary preventive measures can be directed towards high-risk individuals, high-risk groups or the whole adolescent population. The overall high prevalence of obesity in this age group in Europe suggests that this approach would be the most effective. Consequently, healthy lifestyle messages must be developed so they reach a large number of obese and non-obese children (and also adults) in a cost-effective way [(9)]. There is an urgent need to effectively prevent overweight and obesity.

What kind of educational tools are available, in particular with regard to commercial communication and advertisement?

- Diminishing the unfavourable aftermath of the "obesogenic environment" [10].

This environment includes nutritional behaviour, or more in general, the lifestyle of the family, the social environment or the school environment. In this context, several factors actively influence the nutritional habits of children, such as the information or advertisements from the actors in the food industry (producers, dealers, caterers). The media (TV, radio, internet, magazines and newspapers), neon signs, posters and leaflets which bombard children who want to learn about their surrounding world and hunger after all fascinating things. However, children are not able to distinguish between right, advantageous advice and misleading information. They may accept or prefer food with high energy content and nutrient density, because it has mouth-watering shape, and an outstanding sportsman or sportswomen consume it with delight.

It is true that people – and mainly children – tend to be convinced more effectively by information addressed to them by sports figures, celebrities, teachers, coaches, legislators, health-care workers, health professionals and other people they respect. The effect of these people's testimony about the benefits of nutritional practices can be far- reaching to the public. Respected people, thus have an obligation to examine carefully the accuracy and reliability of any nutrition information they disseminate/ promote and to sharpen their skills at making appropriate inferences from scientific reports and they should seek the advice of dietetics professionals if they are uncertain about the scientific merit of a product.

- Fight against advertising as an obesogenic factor.

One of the simplest tools is counselling, teaching of children by skilled instructors (if any), family members and teachers. Voluntary, small civil groups may be created for this purpose, with the support of a practitioner, dietician or teacher. Children can get together for one-two hours per week and have a conversation about eating habits, about new and old food advertisement, about what is right, favourable, acceptable and disadvantageous. Parents may be encouraged to participate in the discussion.

- Nutritional habits at school.

According to experience made in many countries, the evaluation of guidelines for school catering, improved school lunch programmes, improved supply in school kiosks and vending machines form useful tools in the domain of nutritional education, in order to encourage a healthy nutritional behaviour. The choice of available foods and drinks influences the food consumed, it helps to improve the dietary habits and to create a balanced diet and as a consequence contribute to the prevention of diet-related diseases. The development of healthy nutritional habits will accompany the youths throughout their whole life. The elaboration of common principles could be a joint task at EU level, considering however the difference in local eating habits, they should be adapted at Member State level. Eating at school serves as a model for children: children can educate their parents and slowly change the culinary customs at home.

Recommended principles:

- Education-based interventions in/or outside schools which discourage the consumption of sweet soft drinks, and encourage fruit intake and promote the consumption of drinking-water;

- Inclusion of teaching nutritional habits and healthy diet both in primary and – as far as possible – in secondary school programmes. This may be done in the framework of biology lessons or other lessons, such as life sciences. An optimal solution would be the establishment of courses on food hygiene with the teaching of nutrition. However, the latter one is not "conditio sine qua non". The knowledge of basic nutrition is an efficient weapon against the misinformation given through advertising and commercial communications. The first step in teaching nutrition is to issue a directive containing the general principles and the necessity of teaching. Professionals in the Member States should prepare their concrete curriculum and define the conditions for implementation;

- It is advisable to combine nutritional training with physical activity to be carried out as part of the regular programmes in schools, based on/ including controlled playground activities, aerobic exercises, sport activities and increased physical activity during leisure time (minimum 60 min exercise/day). The intervention should comprise of components such as health and nutrition, physical fitness and activity. It will then be possible to demonstrate the relationship between physical activity and nutrient and energy intake, as well as attracting children's attention to the advantages and disadvantages of advertisement;

- Reduced use of TV, VCD, videotape, video games and DVD. Children tend to watch too much television, and walk, run and play too little outside. Moreover, children nosh continuously while watching television, which leads to a surplus consumption of energy, fat and sugar. At the same time, they unavoidably watch the advertisements which frequently promote snacks and sweets.

  Less time spent in front of the TV leads to a shorter exposition to the undesirable impact of advertisements and leaves more time for physical activity;

- Teacher's training: school teachers are generally not familiar with the nutritional habits of their pupils. Dieticians, nutritionists, physicians dealing with dietetics and nutritional science can provide teachers with further in-service training or – in an optimal case – they can teach the children directly. In general, it is advisable to provide a bit of nutritional information in the postgraduate training for all teachers.

The food industry may have a strong positive impact on the improvement of food supply and hence, on the nutritional status. However, in contrast to the favourable influence of food industry, there are some disadvantageous phenomena, mainly in the domain of industry communications and advertisements. The contemporary view that better health can be achieved by consuming particular diets or food is sometimes misused by the food advertisement industry, by suggesting opinions which are opposite to scientific consensus, or some benefits are overestimated.

Some advertising is directed towards children and adolescents such as soft drinks, candies and other sweets. In many countries there are organisations that control advertisements. A self-regulating control of food advertising would be welcome.

4.2 Secondary prevention in childhood obesity

Secondary prevention really means the treatment of obesity. In general, the elimination of unfavourable influences from advertising seems to be an important factor.

The first component of the treatment is behavioural therapy, although this approach is only suitable for older children. In the case of young children, the collaboration of parents or adults is to be recommended. The treatment strategy should involve the whole family in order to achieve a successful result. Permanent changes in behaviour, eating habits and activity may influence the body weight in the long-term.

The next component is the modification of dietary intake that involves the reduction (or stabilisation) of energy intake, the modification of the macronutrient composition and energy density. In addition, it is essential to find a good balance between the number of meals and their composition. In actively growing children it is sufficient to moderately restrict the dietary intake to maintain the body weight, rather than aiming at losing weight. Little is known about the effects of dietary restrictions in the longer term.

The third component is the promotion of physical activity, or to be more precise, of an active lifestyle. Light activity may contribute significantly to the total energy expenditure. Obese children are frequently afraid to take part in sport activities due to their appearance and lack of fitness. Therefore, exercise programmes should include lifestyle and daily exercises (i.e. walking instead of being driven, using stairs rather than elevators).

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6 ANNEX I

Figure 1: Framework of the Determinants of Food and Nutrition Security in the UK. (Williams & Dowler 1994)[63]

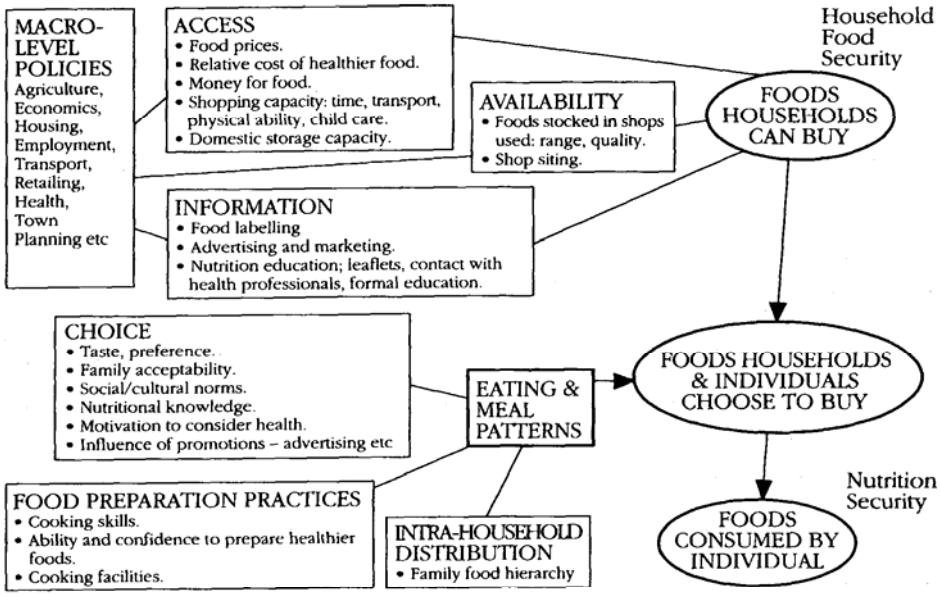

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Figure 1: Annex I/A

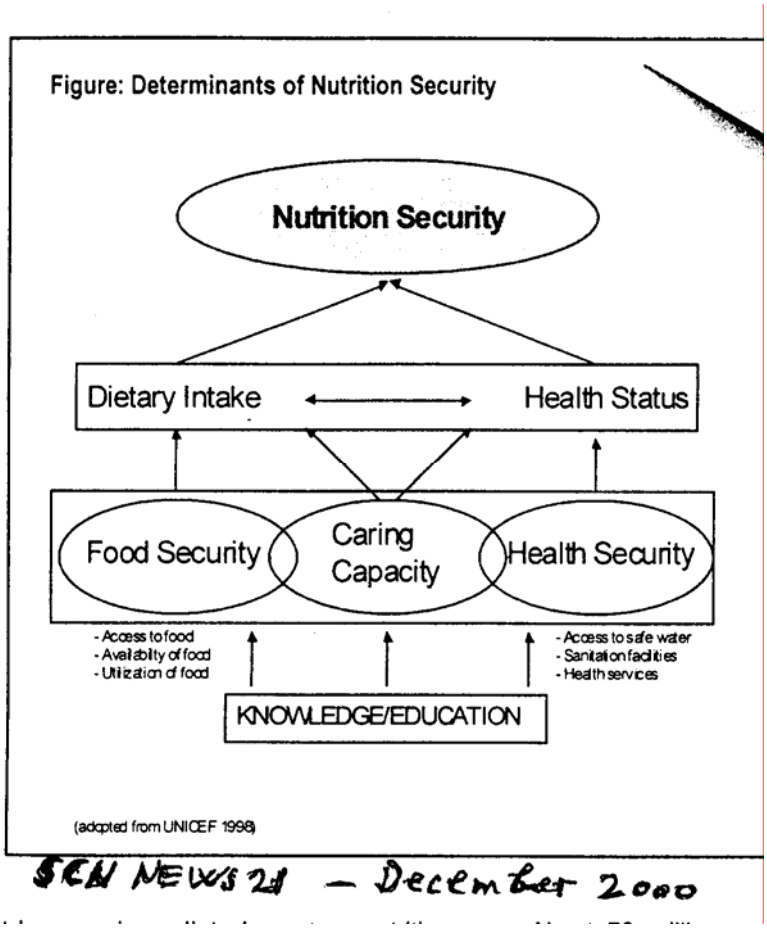
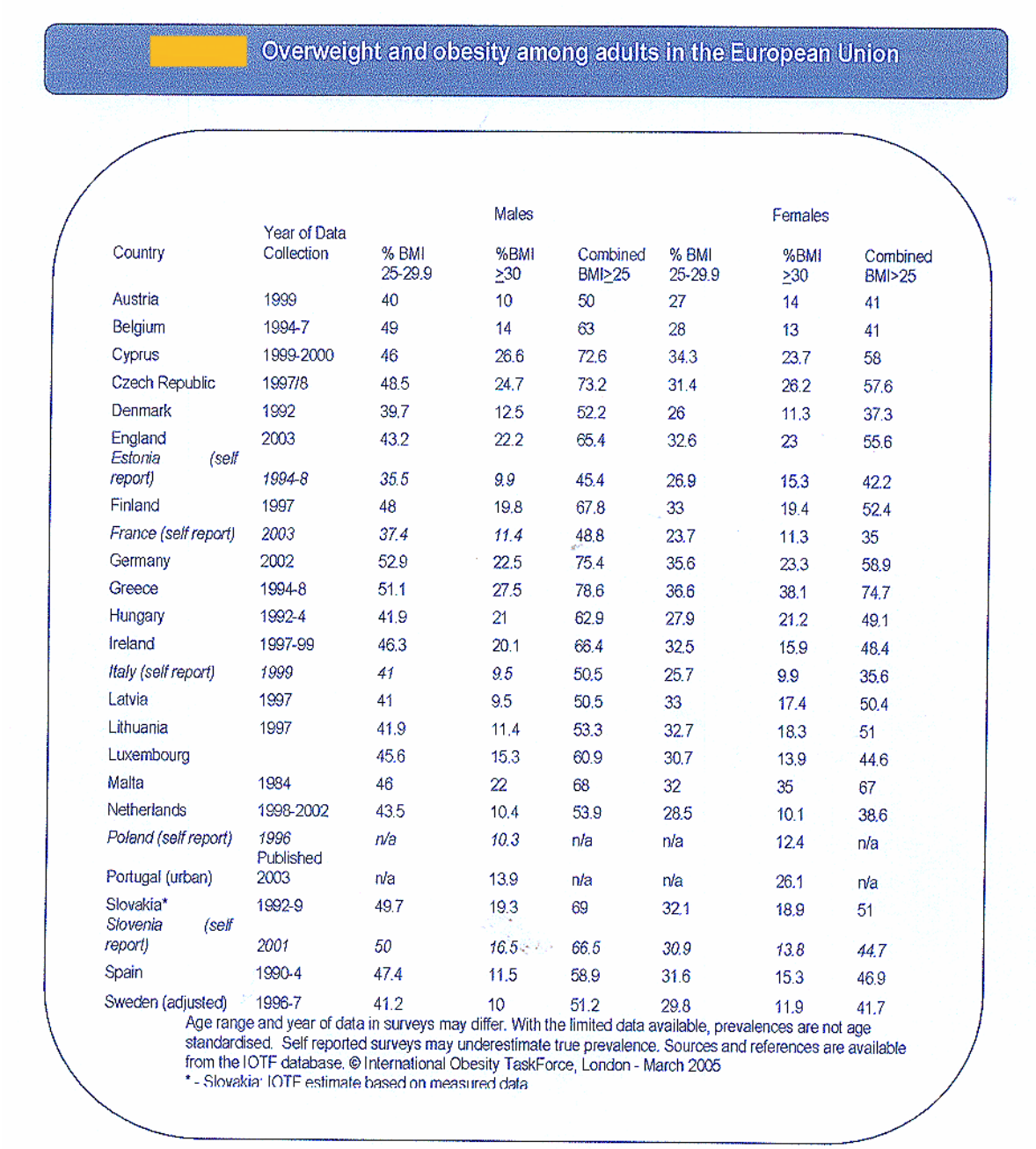


Figure 2.:Annex I/B

7 ANNEX II



Overweight and obesity among adults in the European Union

Country	Year of Data Collection	Males			Females		
		% BMI 25-29.9	%BMI ≥30	Combined BMI≥25	% BMI 25-29.9	%BMI ≥30	Combined BMI>25
Austria	1999	40	10	50	27	14	41
Belgium	1994-7	49	14	63	28	13	41
Cyprus	1999-2000	46	26.6	72.6	34.3	23.7	58
Czech Republic	1997/8	48.5	24.7	73.2	31.4	26.2	57.6
Denmark	1992	39.7	12.5	52.2	26	11.3	37.3
England	2003	43.2	22.2	65.4	32.6	23	55.6
Estonia (self report)	*1994-8*	*35.5*	*9.9*	45.4	26.9	15.3	42.2
Finland	1997	48	19.8	67.8	33	19.4	52.4
France (self report)	*2003*	*37.4*	*11.4*	48.8	23.7	11.3	35
Germany	2002	52.9	22.5	75.4	35.6	23.3	58.9
Greece	1994-8	51.1	27.5	78.6	36.6	38.1	74.7
Hungary	1992-4	41.9	21	62.9	27.9	21.2	49.1
Ireland	1997-99	46.3	20.1	66.4	32.5	15.9	48.4
Italy (self report)	*1999*	*41*	*9.5*	50.5	25.7	9.9	35.6
Latvia	1997	41	9.5	50.5	33	17.4	50.4
Lithuania	1997	41.9	11.4	53.3	32.7	18.3	51
Luxembourg		45.6	15.3	60.9	30.7	13.9	44.6
Malta	1984	46	22	68	32	35	67
Netherlands	1998-2002	43.5	10.4	53.9	28.5	10.1	38.6
Poland (self report)	*1996*	*n/a*	*10.3*	n/a	n/a	12.4	n/a
Portugal (urban)	Published 2003	n/a	13.9	n/a	n/a	26.1	n/a
Slovakia*	1992-9	49.7	19.3	69	32.1	18.9	51
Slovenia (self report)	*2001*	*50*	*16.5*	*66.5*	*30.9*	*13.8*	*44.7*
Spain	1990-4	47.4	11.5	58.9	31.6	15.3	46.9
Sweden (adjusted)	1996-7	41.2	10	51.2	29.8	11.9	41.7

Age range and year of data in surveys may differ. With the limited data available, prevalences are not age standardised. Self reported surveys may underestimate true prevalence. Sources and references are available from the IOTF database. © International Obesity TaskForce, London - March 2005

* - Slovakia: IOTF estimate based on measured data

Figure 3: Annex II/A

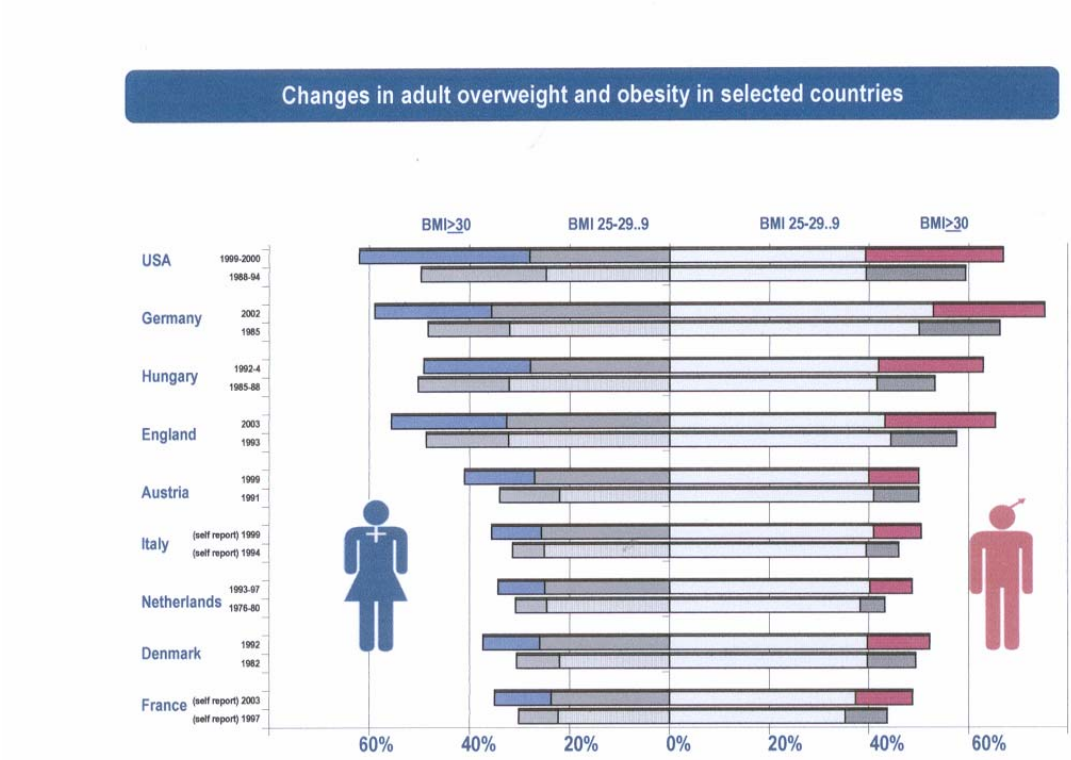


Figure 4: Annex II/B

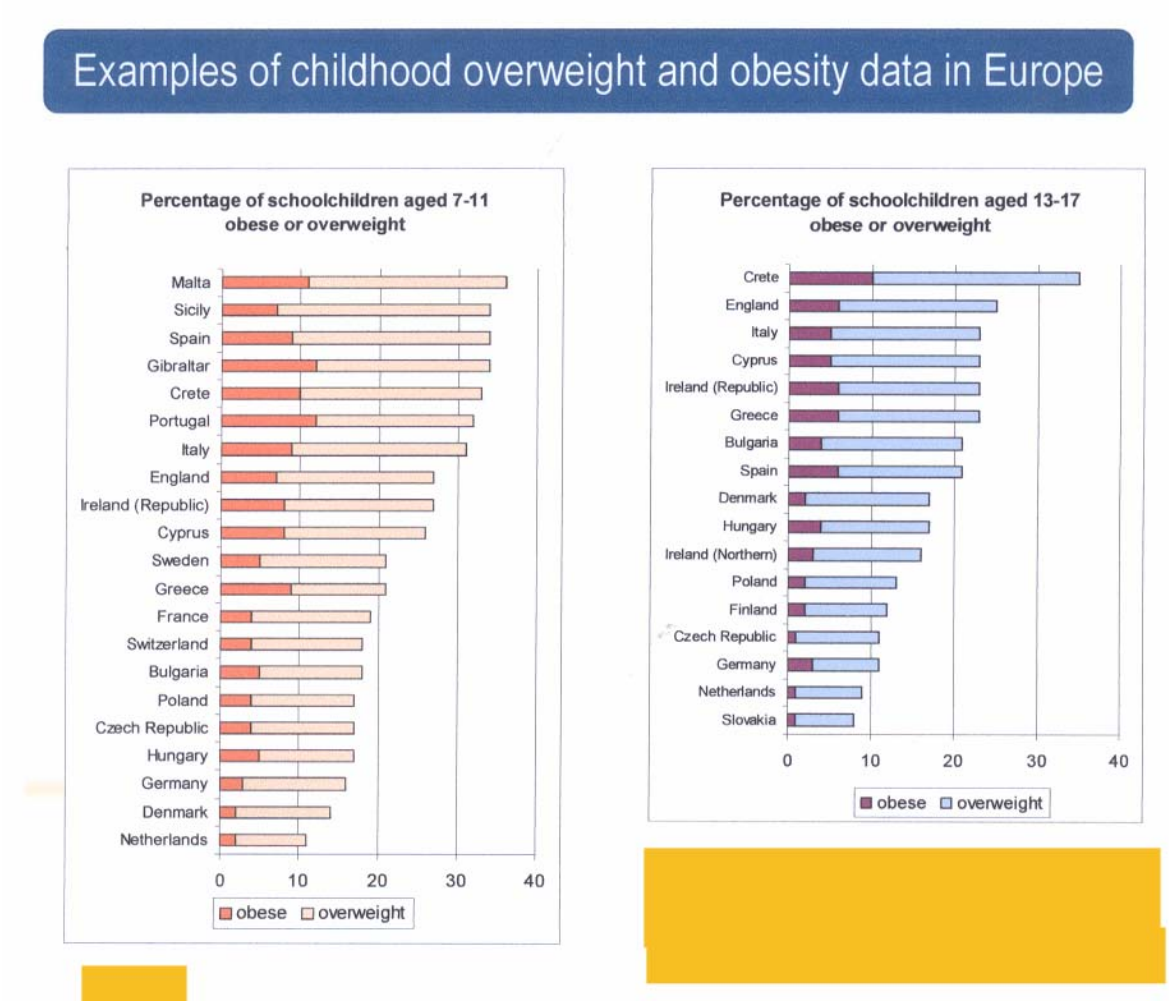


Figure 5: Annex II/C

8 ANNEX III

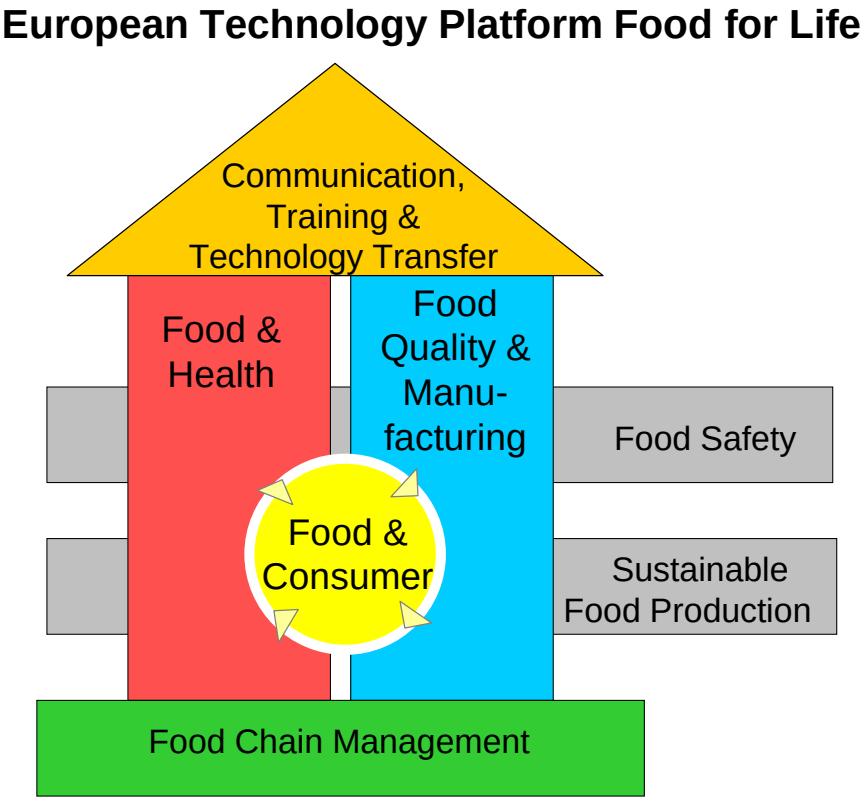


Figure 6: Annex III

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