

## **POLICY BRIEF FOR EU FOOD POLICY**

### **EU Food Policy Context and its Relevance to I4W Subprojects**

The central importance of food to human welfare is obvious, but perhaps for this reason it is sometimes overlooked when it comes to the application of innovation. The two subprojects in this area focus on this issue by seeking to make food 'better' in two distinct ways: by reducing the contaminants in food such as food-borne pathogens and by improving the nutritional value of food (such as in fighting obesity) via the creation of new and/or enhanced foods. The EU has recognized the importance of both approaches, which is reflected in the policies it has enacted in recent years.

### **EU Policy on Food Safety**

The consequences of food-borne diseases are evident for all people, but especially for the weakest among us, including infants, the elderly and chronically ill. Acute intestinal diseases account for an estimated 2.5 million childhood deaths annually worldwide. Most of them are caused by food-borne pathogens. Moreover, once affected, they are more likely to be hospitalized, and mortality rate climbs up to 10 times higher than those among the general population affected by the same diseases. Many elderly people suffer by clinical complications, and it is believed that 2-3% of food borne diseases eventually lead to chronic conditions. Although it is more prevalent in developing countries, the impact of food-borne pathogens on human health can be substantial in more developed countries as well. Just as an example, in the Netherlands there are an estimated 80 000 cases of Campylobacteriosis per year.

Although the risk of food-borne diseases may be in some way reduced by careful food handling procedures in child and elder clinical care facilities, the most successful strategy would be to ensure outstanding food quality and safety along all the food chain, literally from farm to fork. An important part of this is being able to conduct food analysis that identifies food-borne pathogens. However, standard operational procedures (SOP) for many of these food-borne pathogens are still lacking and a common procedure for identifying and classifying pathogens has not been developed. Thus there is a clear need for cheap, fast and reliable diagnostic protocols to detect major food-borne pathogens, and trace back their origin, possibly avoiding the long incubation times of traditional microbiological identification methods. Molecular methods of food analysis and identification of food-borne pathogens is perhaps the best candidate for fixing this. However, at least so far, these techniques are available only for each single bacterium. There is no high throughput protocol suitable for a simultaneous identification of different families of food-borne pathogens, that allows in the same analysis both identification and serotyping.

A safe food supply is a major public health and economic issue in Europe, both for foods consumed within the EU area and those produced there and exported. EU policy has reflected this importance, since 2000 the Commission, Council and Parliament have issued hundreds of pieces of legislation relating to food safety issues such as food hygiene and food-borne diseases. Current European food policy has its origins in the General Principles of Food Law (Articles 5 to 10) that entered into force on 21 February 2002 in the joint Council/Parliament Regulation EC/178/2002. It is from this that the EU's integrated "farm to fork" approach was developed as the overriding principle for EU food safety policy.

Relevant to the subprojects of I4W is that the EU regulation established the principles of risk analysis in relation to food and establishes the structures and mechanisms for the scientific and technical evaluations which are undertaken by the European Food Safety Authority (EFSA). Food law, and in particular measures relating to food safety has been connected by the EU to strong scientific base. The EU has been at the forefront of the development of the risk analysis principles and their subsequent international acceptance. Regulation EC 178/2002 establishes in EU law that the three inter-related components of risk analysis (risk assessment, risk management and risk communication) provide the basis for food law as appropriate to the measure under consideration. One of the subprojects would help expand upon the tools and techniques available to conducting this analysis by being able to better identify food borne pathogens.

### **EU Policy on Novel Foods**

In addition to reducing contaminants, EU food policy has also sought to regulate the development of better food via the development of new or improved food types also called 'novel' food types. Novel food types have been described as those that:

- present a primary molecular structure;
- consist of micro-organisms, fungi or algae;
- consist of or are isolated from plants or isolated from animals;
- have had their nutritional value, metabolism or level of undesirable substances been significantly changed by production process.

EU oversight of novel foods is based upon two main premises. The first is that, while they have the potential to offer many benefits, they also pose unforeseen risks and unintended consequences as well. Like food analysis, novel food development should adhere to rigorous scientific standards. Secondly, due to the potential health and quality of life benefits presented by novel foods, it also represents a significant potential economic sector that ties into the EU's desire to develop high skilled employment sectors while preserving the agricultural heritage of the continent.

For this reason, the Regulation EC 258/97 of 27 January 1997 of the European Parliament and the Council presented detailed rules for the authorisation of novel foods and novel food ingredients. The regulation was amended twice in 2003 to cover among other things genetically modified organisms (GMOs) and products derived from GMOs.

Based upon this legislation, 'novel' foods/ingredients include any that have not been used for human consumption to a significant degree within the Community before 15 May 1997. For foods commercialised in at least one Member State before the entry into force of the Regulation on Novel Foods on 15 May 1997, the EU has observed the "principle of mutual recognition". In order to ensure the highest level of protection of human health, novel foods must undergo a safety assessment before being placed on the EU market. Only those products considered to be safe for human consumption are authorised for marketing.

Companies that want to place a novel food on the EU market need to submit their application in accordance with [Commission Recommendation 97/618/EC](#) that concerns the scientific information and the safety assessment report required. 45 novel foods have been approved by the Commission since 1997. It is important to note that the number of approved foods has increased dramatically – more were approved in the past 2 years than in the entire period between 1997 and 2004. Since 2007, the placing of 3 products on the market have been refused.