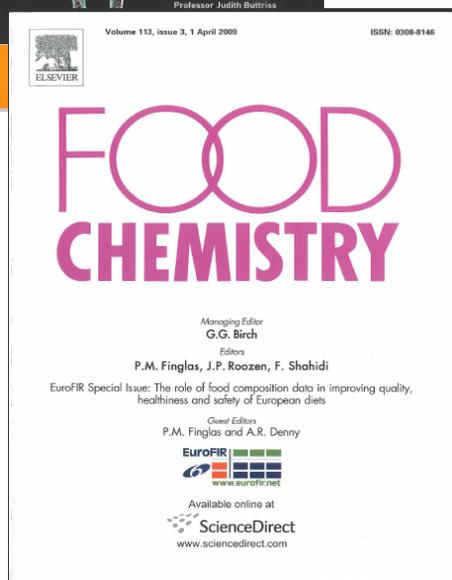




# Recent achievements in Europe through EuroFIR and BaSeFood projects

Biodiversity and Sustainable Diets  
3-5 November 2010  
FAO Rome

**Paul M Finglas**  
Institute of Food Research, Norwich, UK  
([paul.finglas@bbsrc.ac.uk](mailto:paul.finglas@bbsrc.ac.uk))



- Research into traditional/ethnic foods in Europe (EuroFIR/BaSeFood projects)
- Harmonised framework for prioritizing, collecting and analysing foods
- Integration of concepts and approaches for characterisation of plant, food and cultural diversity

# Food Data Platform 2010

-  Online Databases
-  Databases under Implementation
-  Static information (data in table format)
-  Offline Information (publications)
-  Information Pending
-  Specialized Datasets



Other online databases

February 2009

Image © 2005 EarthSat

## Importance of Studying Traditional foods

*Harmonised procedures for prioritisation, sampling and analysis of specific foods across Europe*

- **Expression of culture, history and lifestyle<sup>1</sup>**
- **Despite globalization, different dietary patterns between countries<sup>1</sup>**
- **Imprints on dietary patterns<sup>1</sup>**
- **Potential health properties**
- **Lack of nutrient data on traditional foods in most current national food composition tables**



EuroFIR Traditional Foods WP

# Systematic study of traditional foods



- Definition of the term “Traditional”
- Selection procedure of the Traditional Foods and recipes
- Recording and sampling of Traditional foods
- Laboratory selection
- Nutritional Composition of Traditional Foods



# Important for several EU schemes



## Protected Designation of Origin (PDO)

Covers agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognised know-how.



## Protected Geographical Indication (PGI)

Covers agricultural products and foodstuffs closely linked to the geographical area. At least one of the stages of production, processing or preparation takes place in the area.



## Traditional Speciality Guaranteed (TSG)

Highlights traditional character, either in the composition or means of production.

# Definitions

[[www.eurofir.org](http://www.eurofir.org)]

## TRADITIONAL

Means conforming to established practice or specifications prior to the Second World War.

## TRADITIONAL FOOD

Is a food of a specific feature or features, which distinguish it clearly from other similar products of the same category in terms of the use of **“traditional ingredients”** (raw materials or primary foods) or **“traditional composition”** or **“traditional type of production and / or processing method”**.

# Selection Procedure

## Documentation

- ✓ Description of each food
- ✓ Documentation of the traditional character of the food
- ✓ Consumption data on the food or the wider food category
- ✓ Availability or not of compositional data for the food
- ✓ Coded references linked to all above fields of information

## Prioritisation

- ✓ Documentation of traditional character
- ✓ Availability and quality of composition data
- ✓ Consumption data (*"Frequent" or "Not frequent"*)
- ✓ Health implications
- ✓ Marketing potential

## EVALUATION & SELECTION

- ✓ List of foods per country evaluated based on the EuroFIR definition of traditional food and the above criteria
- ✓ Prioritised list of traditional foods per country was elaborated
- ✓ 5 Traditional Foods per country were selected to represent a full meal course:

Starter , two main dishes,  
dessert, special traditional food



## From 13 European countries:

Austria, Belgium, Bulgaria,  
Denmark, Germany, Greece,  
Iceland, Italy, Lithuania,  
Poland, Portugal, Spain and  
Turkey.

### Examples

#### Turkey

Tarhana Soup: Tarhana UOEak  
Pastirma: Pastirma (Kayseri)  
Kebab with yoghurt: Kebap, yooeurtlu  
Hamsi Anchovy: Hamsi Buoelama  
Baklava: Baklava Gaziantep

#### Iceland

Cured Shark: Kastur hakarl  
Stockfish, haddock: Hardfiskur, hert ysa  
Smoked Lamb: Hangikjot  
Pickled Blood Sausage: Sursadur blodmor  
Skyr: Skyr

# RECIPE CARDS

## Traditional foods recipe cards

Austria 

### Apple strudel: (Apfelstrudel)

The Austrian cuisine is internationally famous for catering to the sweet tooth. Very similar to Bohemian cooking, sweet meals ("Mehlspeisen") are often served as main courses. It is a mix of culinary styles originating from the many ethnicities of the former multinational Austrian Empire.

The quantities are given for 10 portions. Preparation time is about 3 hours 10 minutes.



#### Preparation

First the strudel pastry jacket is prepared by mixing the respective ingredients and kneading them into dough. The surface is sprinkled with the vegetable oil and left untouched for about 1 hour.

For the breadcrumb mix, butter and margarine are liquefied in a pan until churned; sugar and breadcrumbs are added and roasted until golden brown. The apples are peeled, rasped, and mixed with sugar and cinnamon.

Then the pastry is rolled out on a dish cloth which was besprinkled with wheat flour. Vegetable oil is applied to the surface of the dough. The dough is stretched very thinly, laid out again on the dish towel. One third of the pastry jacked is filled with the breadcrumb mix, the raisins (soaked in rum), and lastly with the apple mix, and then rolled up with help of the towel.

The liquefied butter is repeatedly applied to the surface of the pastry jacket.

Finally the strudel is baked on a tray in the oven at 180 degrees Celsius until golden brown (approx. 1 hour).

#### Ingredients

##### Strudel pastry jacket:

- 330 g Wheat flour (type: 480)
- 10 g Salt
- 6 g Vegetable oil
- 175 ml Tap water (soft and lukewarm)
- 10 g Wheat flour (type: 480) to besprinkle the worktop
- 3 g Vegetable oil to spread the pastry jacket

##### Breadcrumb mix:

- 65 g Butter
- 32 g Margarine
- 90 g Sugar
- 60 g Breadcrumbs

##### Raisins mix:

- 34 g Raisins
- 12 g Rum

##### Apple mix:

- 1850 g Tartish apples,
- 140 g Sugar,
- 12 g Cinnamon

##### In addition:

- 10 g Butter to butter the baking-tin,
- 60 g Butter to butter the pastry jacket

#### Nutritional value per 100 g of edible portion

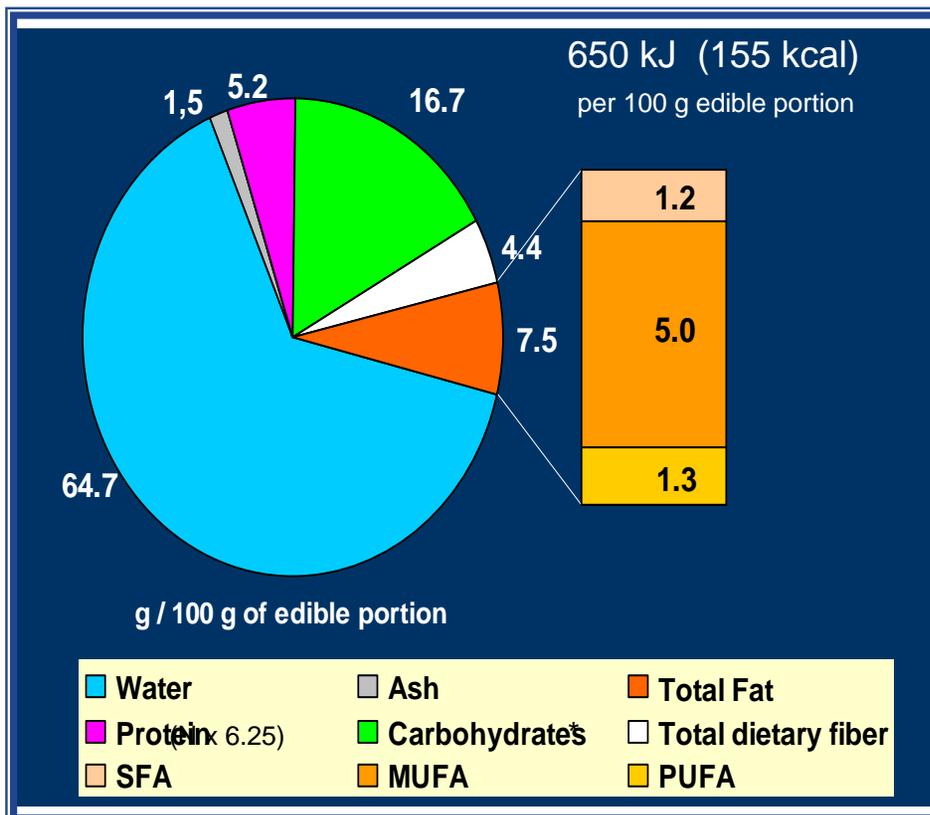
Energy (kcal / kJ)	190 / 800
Protein (g) (N x 6.25)	2.2
Total Fat (g) of which saturated fatty acids (g)	5.9 2.9
Carbohydrates (g) of which sugars (g)	32.0 25.3
Dietary fibre (g)	2.4
Sodium (mg)	123

For more information on Austrian traditional foods, contact the University of Vienna at <http://www.univie.ac.at/>

The work was completed within the EuroFIR project funded by the European Commission. Thanks to Gertrud Rohrer from the local household for inviting us for recipe recording and to Katharina Fritze for her assistance in reproducing the recipe.



## Greek Traditional Chickpea Soup (Ελληνικά Παραδοσιακά Ρεβίθια Σούπα)



### Ingredients:

1 kg (from 500 g of raw chickpeas) Chickpeas, soaked in water  
 3.7 kg Water  
 110 g (2 Medium sized) Onion, grated  
 135 g Extra virgin olive oil  
 55 g (Juice of 1 ½ lemons) Lemon juice, fresh  
 17 g (3 Tablespoons) Wheat flour (white)  
 16 g Salt



\*Available carbohydrates

According to Greek mythology, chickpeas were found by the God of the sea, Poseidon. Their cultivation in Greece goes back to the 3<sup>rd</sup>-4<sup>th</sup> millenium BC. Today, it represents a recipe that is widely known throughout Greece.

## Definition of Ethnic Foods

**Authentic ethnic food** represent the foods mainly consumed by ethnic population groups. is “a food from countries other than the home market contributing to a different food culture than the traditional cuisine of the host country. Food may be adapted by combining local and imported ingredients and is prepared at home”.

**Modified ethnic food** represent the foods consumed by the mainstream population in a region or country. is “a commercially-modified version of food as prepared in an immigrant’s country to suit the taste and preference of the host country”.

Ref. Khokhar et al 2009. Food Chemistry 113, 816-24

## Why ethnic foods?

- To provide new and reliable data on the nutritional composition of ethnic foods by both ethnic and mainstream populations for inclusion in national FCDBs
  - Develop standards and mechanisms for calculating nutrients from recipe information to generate validated data
  - Transfer scientific and technological knowledge to consumers and industry;
  - Promote knowledge of ethnic foods thereby increasing consumer choice and market opportunities.
- 
- **Increased consumption** by both the mainstream and ethnic populations;
  - **Impact on dietary intakes** of nutrients, other naturally-occurring compounds and contaminants;
  - **Reported higher risk of diet-related diseases** among the ethnic minority groups across Europe;
  - **Absence of information** on composition inhibits effective intervention and provision of accurate dietary advice.



# Outcomes

- Standards and mechanisms to generate new and reliable data have been achieved to exploit for other EU member countries
- New data on 117 foods (87 foods from analysis & 30 from recipe calculations )
- Requirements for dietary assessment methods and tools differ for ethnic groups
  - Communal pot, preparation and eating practices vary within ethnic subgroups
  - Lack of information on food composition, recipe and portion sizes

## Selected ethnic foods in Europe



*Biteku – tekku* (Belgium)



Ladoos (UK)



Steamed ravioli (Italy)



Brik (France)



# BaSeFood

**Sustainable exploitation of bioactive components  
from the Black Sea Area traditional foods  
(FP7-KBBE-227118)  
Coordinator - L. Filippo D'Antuono**





# BaSeFood Consortium





# BaSeFood Project (2009-12)

To **identify and characterise bioactive compounds in traditional food products** that can be **beneficial for human health** and are typical for the diet of **EU neighbouring regions**. *Scientific data on the risks and benefits linked to these products or compounds will be produced and evaluated. It will include the study of role and mechanisms (absorption and activity) of bioactive compounds and also factors influencing their functional properties (e.g. processing).*

## **Expected impact:**

**To increase knowledge** of nutrients, food components and/or **bioactive compounds effects on human health, substantiating health and nutritional claims.** to provide sound scientific data and to help in

**Enhance the cooperation between scientific disciplines and stakeholders (nutrition, practitioners, local food companies, etc.).**

Assist EU food industry to increase its innovation potential and competitiveness, **in particular regarding traditional foods and SMEs.**





# WP1: Surveying, recording and describing traditional foods (HHF)

**Selection of 30 foods  
from Black Sea  
Countries:**

**Recording  
Description  
Analysis  
Bioactivity**

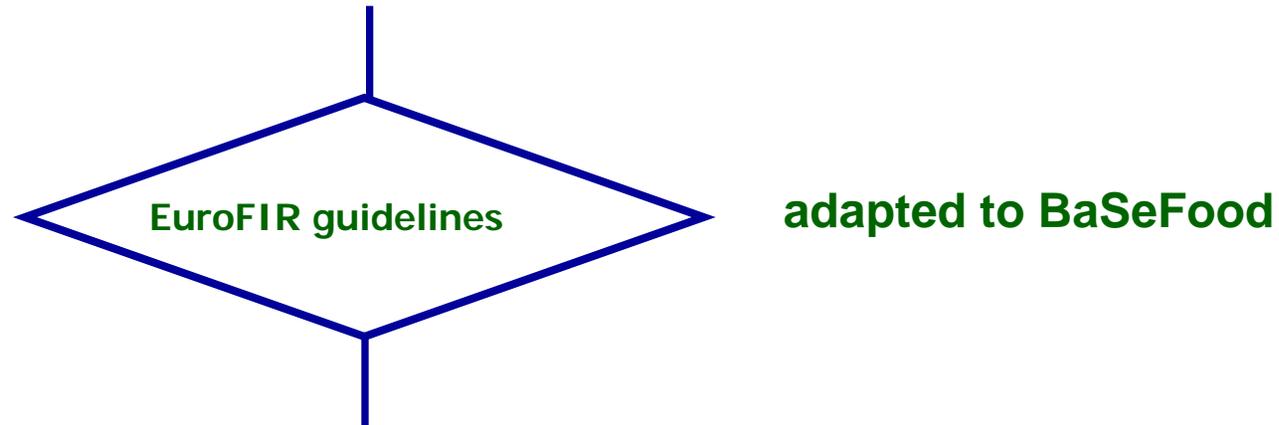
- **Criteria for selection of foods**

- Environmental, botanical cultural;
- Raw materials & ingredients;
- Processing, home preparation;
- Present use, importance & diversity follow ups.



## WP1: Surveying, recording and describing traditional foods (HHF)

### Surveying traditional foods of the BSAC



#### National documented files

- Description / origination of the food
- Traditionality according to the EuroFIR definition
- Consumption of the food or its wider food category
- Composition of the food or its wider food category
- Potential bioactive components
- References



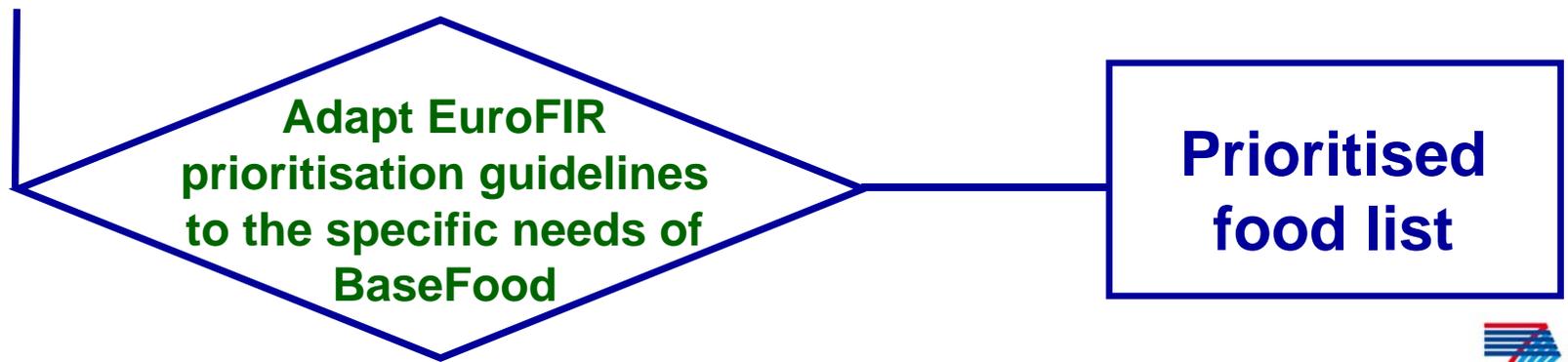
# Selection of traditional foods of BSAC

## Preliminary (external to foods)

- Collection of availability data from HBS
- Collection of supply data from FBS
- Collection of WHO mortality data of the BSAC

## Selection criteria (intrinsic to foods)

- Documentation of traditional character
- Availability of composition data with focus on bioactive substances
- High consumption
- Health implications
- Marketing potential





## Selection of traditional foods in BSAC

Selected foods will represent following categories:

- Cereals and cereal based foods
- Vegetables
- Fruits
- Products from oilseeds
- Herbs, spices, aromatic plants
- Fermented products of plant origin

Selected foods will be:

- Recorded and described in detail
- Analytical (WP2) & bioactivity (WP3) characterised





# Recording and description of traditional foods

- **Implementation of recording and collection of data**
  - Information on raw materials and ingredients
  - Detailed recording of the traditional preparation method
  - Dietary and health promoting issues in relation to the composition
- **Development of flow charts of the traditional preparation or production procedure**
- **Development of integrated records for possible purposes of registration**



## Development of a large-scale survey of traditional foods (UNIBO)

To document diversity, environmental, cultural and other issues in a wider group of traditional foods:

- Foods from specific crops, relevant for biodiversity characterisation and preservation;
  - Plant origin foods from specific geographic areas and/or ethnic groups;
  - Plant foods with similar putative healthy properties with popular knowledge of different areas;
  - Plant origin foods used for similar preparations in different areas and particular interest for stakeholders;
- 
- Activities extended to Armenia, Azerbaijan and Moldova





# An example: a possible corn study



- Corn history
- Reasons for uses
- Ethnic, social facts

- Local plant resources: landraces
- used raw materials (landraces, hybrids)
- quality and technological characters

- Corn foods
- Porridges & other products
- Prioritised corn foods

- Bioactives and health issues
- Analytical data on composition, bioactivity and retention on processing

- Traditional flow charts
- Enhanced flow charts
- Scaling up
- New products

- Conclusions
- Perspectives in health sector
  - Perspectives in traditional food sector



# WP2 Sample Collection & Analysis

**Nutritional composition of 9 Traditional Foods  
from 6 countries of Black Sea Area**

**Systematic Study of Traditional Foods**

- **Prioritisation of components and bioactive compounds**
- **Guidelines for sampling plan and sample handling**
- **Selection of laboratories**

**Moisture; ash; total nitrogen (protein);  
total fat and individual fatty acids;  
cholesterol; starch; total sugars and  
dietary fibre**

**Vitamins:  
A, E, C and B<sub>2</sub>**

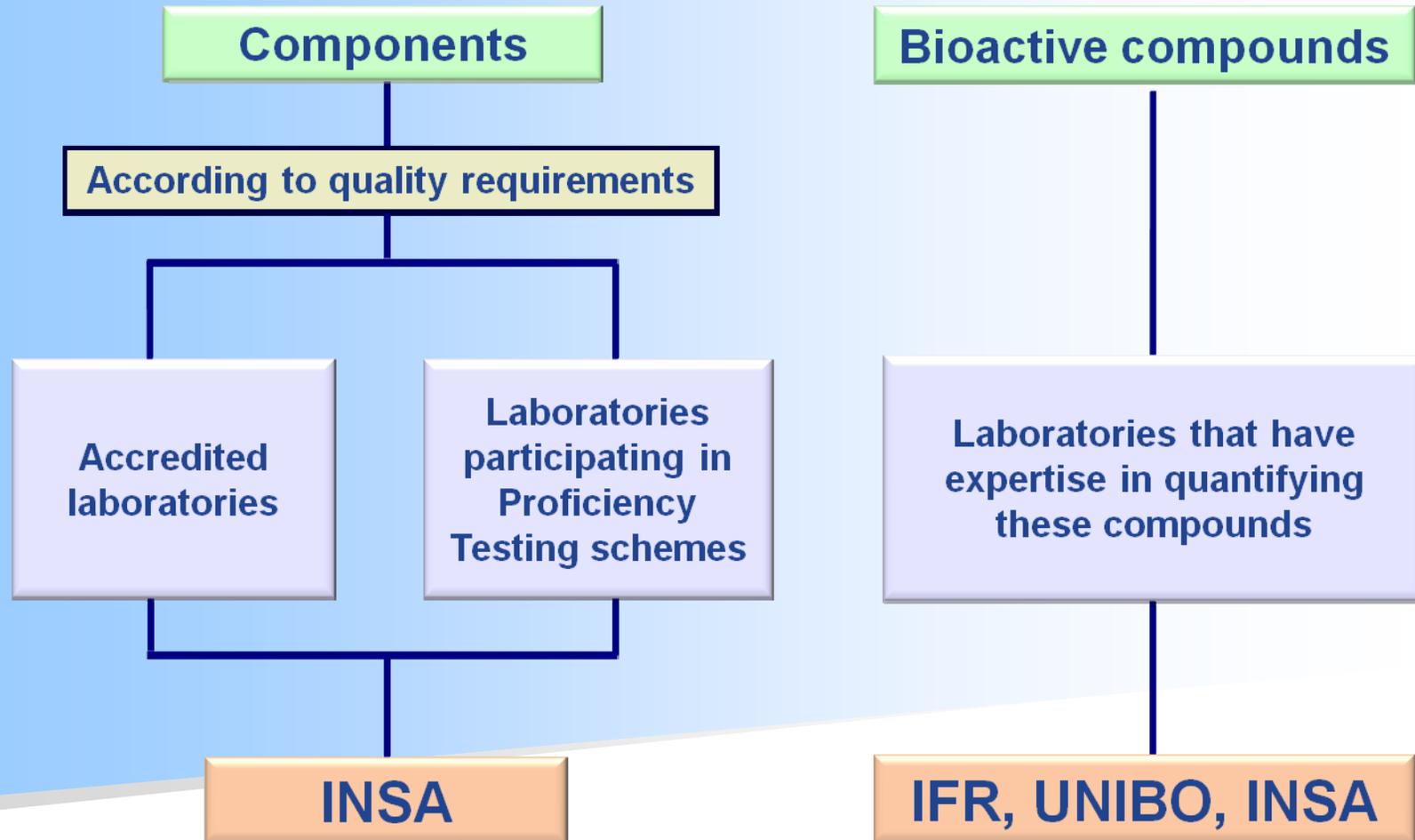
**Minerals and  
Trace elements:  
Na, Fe, Zn and Se**

**Bioactive compounds: Glucosinolates,  
phenolics, anthocyanins,  
isothiocyanates, etc**



## WP2: Analysis

### Selection of laboratories



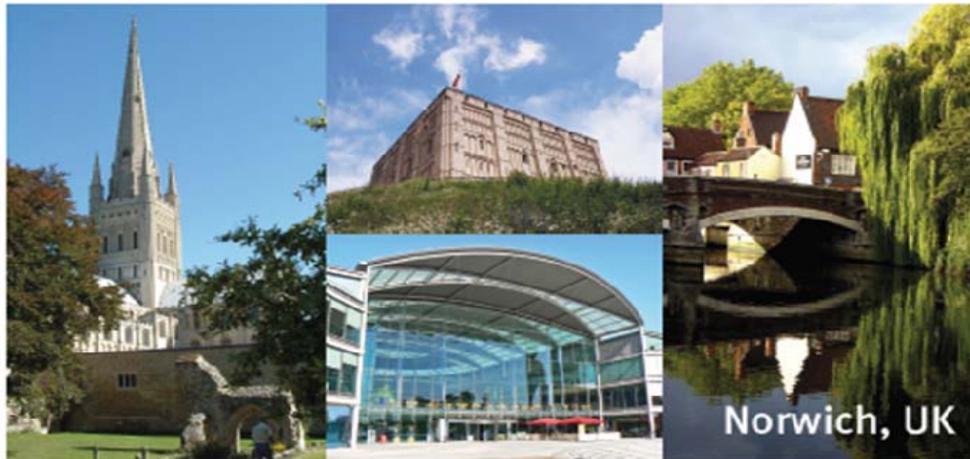


## Conclusions (EuroFIR & BaSeFood)

**Contribution to integration of approaches and methods in traditional food research and development**

- **Generation of reliable scientific data on food nutrients and plant bioactive substances, properties and effects**
- **Integration of concepts and approaches for characterisation of plant, food and cultural diversity**
- **Contributing to biodiversity, food composition and sustainability diets in Europe**





## 9th International Food Data Conference

### Food Composition and Sustainable Diets

Email:  
[9th.IFDC@bbsrc.ac.uk](mailto:9th.IFDC@bbsrc.ac.uk)

[www.eurofir.org](http://www.eurofir.org)

#### Facts

- › Date: 14th to 17th September 2011
- › Venue: NBI Conference Centre  
Norwich Research Park, UK
- › Registration deadline: 31st July 2011
- › Abstract deadline: 31st March 2011
  
- › All stakeholders in food and health  
including scientists, regulators and  
industry representatives should attend

#### Contact us

Host Institute  
Institute of Food Research (IFR)  
Colney, Norwich, NR4 7UA, UK  
Tel: +44 (0) 1603 255368

9th IFDC Chair: Paul Finglas  
(Head Food Databanks, IFR, UK)

Collaborators:  
Food and Agriculture Organization (FAO)  
International Network of Food Data Systems (INFOODS)  
European Food Information Resource (EuroFIR AISBL)  
The Food and Health Network (FHN)

For further information please visit:  
[www.eurofir.org](http://www.eurofir.org)



Food & Health  
Network



 **EuroFIR**  
European Food Information Resource

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