EuroFIR – Results, Achievements and Future Plans

3rd International EuroFIR Congress
Paul Finglas
EuroFIR Director

8IFDC, 1-3 October 2009, Bangkok

Outline

- Objectives
- General and what does EuroFIR provide
- Key achievements with examples
- Future direction
BACKGROUND AND OBJECTIVES

- Started 1/1/05 with €12M for 5yrs (+2yrs?)
- Partnership between 48 centres from 27 countries including:
  - 25 national database compilers (Universities, Institutes, Government Bodies and Others) – different organisations
  - MoUs with CZ, SL, EE, NZ, HR, HU & AR (Latinfoods) supporting food composition work outside Europe
  - Key users & stakeholders (ca 500) – listening & responding to their needs

EuroFIR Consortium
What does EuroFIR provide?

Pan-European validated and documented food information in order to support:

1. **Consumers – labelling/information**
2. **Food industry – improve food quality**
3. **Health surveys, health policy – nutrient intake**
4. **Public health government bodies**

**Objectives**

1. **Strengthen scientific and technological excellence in food composition databank systems** by integrating at the European level the **critical mass of resources and expertise**

2. **Identify and provide new information for missing data for nutrients and biologically active compounds** with putative health effects, and covering all food groups

3. **Spread excellence and enhance the impact of the network** in food composition databanks and public health nutrition beyond the boundaries of the partnership through training, and sharing of methods and facilities
Objectives (cont/…)

4) Communicate with, and enter into dialogue with all user and stakeholder groups, in order to establish and deliver user and stakeholder requirements for sustainable and durable food databank systems.

5) Disseminate and exploit new scientific and technological knowledge in order to strengthen the competitiveness of the food industry……targeted at evidence based healthier food production.

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FOOD DATA PLATFORM
Anders Møller et al.
Online access to FCDBs

Forecast for 2009: 20-25 authoritative European web sites with food data and references/documentation

European Food Composition Information: from 7 in 2005 to....

Image © 2005 EarthSat
European Food Composition Platform: >25 in 2009

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

EuroFIR Data Bank Platform

A virtual platform of inter-connected national and specialised databases:

- Distributed configuration
- Using client – mediator – server applications
- Standardised vocabularies - thesauri
- XML format data interchange
- Draft European standard for food data (CEN/TC 387)
- Quality management system (SOPs; QI)

8th International Food Data Conference
October 1-3, 2009
Bangkok, Thailand
The EuroFIR Data: Our Goals for FCDBs

- Common description of foods and values in European FCDBs
- Food Description - indexing of foods (LanguaL)
- Value Documentation (EuroFIR thesauri)
  - Common component definitions (with cross-reference to ChEBI, INFOODS, legal definitions)
  - Common analytical method description
  - Common bibliographic database (CitExplore)
- Recipe calculation – common procedure and factors
- Harmonised quality evaluation systems
- Common XML template for data transfer
Simultaneous online search in national and specialised food composition databases - Usability testing
## Data Accessibility & Exchange/Research Opportunities

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<th>Database</th>
<th>Original Name</th>
<th>Name</th>
<th>Type</th>
<th>Data Type</th>
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### Vitamin C (Ascorbic Acid)

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<th>Dataset</th>
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<th>Type</th>
<th>Data Type</th>
<th>Status</th>
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<tr>
<td>Italian Food Composition Database (IFCD) 2020</td>
<td>Tomato, orange, lemon juice, and other fruits</td>
<td>IFCD, ME, FR</td>
<td>SDI</td>
<td>Yes</td>
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A EuroFIR quality management standard for compilers is being set up

Transparency of the compilation process – flow chart

Eleven critical control points (CCPs) along the flow chart identified

Establish standard operating procedures (SOPs) for CCPs in the compilation process

National FCDBs to match their SOPs to generic SOPs

Compilation Flow Chart – CCPs & SOPs

- Requirements on data structure of food composition databases and on interchange of food composition data:
  - Identification, description, classification and labelling of foods and ingredients
  - Values for the amounts of measurable, estimated or calculated nutrients and other components
  - Specifications of methods used for obtaining these values
  - References to sources for the information reported
  - Liaison with GS1 initiative will enhance coverage and uptake of future standard with industry

ADVANTAGES OF A CEN STANDARD – encompasses principles of Greenfield & Southagte

- Raises overall quality & transparency of food data in Europe
- Helps to support EC Directives on labelling and nutrition & health claims, nutrient profiling – good for users and consumers
- Encourages national funding for FCDBs – crucial for long-term sustainability
- Enhances dialogue/data exchange with industry
- CEN & ISO Standards are inter-changeable – important for promoting good quality data globally
Timeframes - need for wider consultations

TRADITIONAL FOODS
Antonia Trichopoulou & Helena Costa
Helena S. Costa - INSA, Portugal

To define the term “traditional”

To establish a common methodology for the systematic investigation of traditional foods across Europe

To provide new data on the nutritional composition of traditional foods for inclusion in national food composition tables with representative raw ingredients and recipes

To develop dissemination material on traditional foods for each country

EuroFIR
European Food Information Resource

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

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SELECTED TRADITIONAL FOODS PER COUNTRY

Austria

Vegetable soup (National name: Gemüsesuppe)
Veinsgässler (National name: Wiener Schnitzel – see opposite)
Cabbage and Noodles (National name: Kraut und Nudeln)
Pasta dumplings (National name: Eintopflederhalle)
Apple strudel (National name: Apfelstrudel)

Belgium

Stamppot croquettes (Dutch name: pompoenkrakken)
Paremskawa (Dutch name: Waarome struikruitmolen)
Mooi bii, meatballs (Dutch name: mooi bii, warkoewbrokken)
Gruis of Belgium snails with ham and cheese sauce (Dutch name: grijze oesters met pannencake en kaas)
Belgian (Brussels) waffles (Dutch name: Brusselse wafels – see opposite)

Bulgaria

Cold soup, Tzatziki (National name: Tzatsiki)
Veal "Prahni" stew (National name: Tzatsiki, "Prahni" stew)
Sweets with rice (National name: Kopirina orzo – see opposite)
Pepper rice (National name: Lyulstirica)
Pumpkin patty (National name: Pamprok or buli)

SYNTHESIS REPORT ON TRADITIONAL FOODS

This work was completed on behalf of the European
Food Information
Agency (EuroFIR)
Commission and
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CT-2005-01634

Synthesis report No 6:
Traditional Foods in Europe

Dr. Elisabeth Weidhasebaum
and Bridget Berdon
British Nutrition Foundation
Dr. Helena Seabra Costa
National Institute of Health (INSA), Portugal

8th International Food Data Conference
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Enhanced knowledge of traditional food composition

WP 2.3.1
Traditional Foods

Enhanced data quality

Traceability information

Guarantee food production authenticity

Nutritional information for industry
SUSTAINABILITY & FUTURE PLANS
Whole Consortium
IFR, INSA, UCC, DTU, WU, BNF, DFI & Foodcon

From EuroFIR to EuroFIR AISBL
- Association Internationale Sans But Lucratif
- Member-based, non-profit Association based in Belgium
- Of food composition data compilers, experts and stakeholders
EuroFIR AISBL – Mission

Scientifically based

• Development, publication, exploitation

… of food composition data and accompanying information

In order to support and underpin research into food quality and safety, and diet and health

• Seek to promote and develop quality assurance and traceability principles considering the implementation of the relevant international standards

Membership Categories

Full & Associate Member

Existing EuroFIR national database compiler organisations, other supporting EuroFIR partners and new national food database compiler organisations

Ordinary Member (Users)

Organisation: academia, industry, non-profit, governmental and policy bodies

Individual: researchers, lecturers, dieticians and others

Students: undergraduate, masters, PhD students
Benefits (1)

Access to food composition data

Use of food composition data
- Via membership
- Using individual contracts for non-members

Software Tools
- EuroFIR eSearch Facility – simultaneous online search of national and specialized food composition databases
- EuroFIR eBASIS - non-nutrient bioactive compounds with putative health benefits database
- LanguaL - Food Product Indexer
- Food Composition Data Management System

Benefits (2)

Training
- EuroFIR eLearning modules
- Specialised courses, e.g. LanguaL, Food Comp Course
- Tailor-made courses on food composition

Annual congresses and meetings

Access to a network of...
- Food composition data compilers, expert users, stakeholders and contacts worldwide

Document repository service
Benefits (3)

Identification and supporting...

- research and development priorities
- technology needs
  ... as identified via meetings of the General Assembly of all EuroFIR AISBL Members

Research & development opportunities...

- To respond to Calls for Proposals such as FP7 and other funding bodies
  ... using the combined and integrated input of the EuroFIR AISBL Membership

Uses of EuroFIR Food Composition Data

Examples of commercial use of food composition data from national food composition databases linked with EuroFIR:

- Development of software for the implementation in mobile devices or Smart phones & video games
- Implementation in systems, which can be accessed by a very large number of users from wide range sectors, e.g.
  - web portals
  - companies’ intranet
  - large-scale catering establishments
- Income shared between AISBL & FCDBs
Better eating: making life easier
Nutrition consultation software for
Nintendo DS & Apple iPhone

- Aim: Better eating and feel better!
- 35 lessons for a better nutrition are playful learnt
- 100 recipes for breakfast, lunch and dinner
- Daily Planner enables individual dietary goals and objective scrutiny

Further applications…
Consultancy and Training

With focus on food composition data application

- Food analysis and PT schemes
- Technical and scientific consultancy
  - On the use of food composition data and the implementation of projects
- Continuing professional development: bespoke/tailored training, courses and workshops
- Food composition data, food analysis,
- Quality assessment uses and quality evaluation of food composition data
- Tailored individual trainings and other individual solutions

The EuroFIR Project – Conclusions (1)

- >20 authoritative European FCDBs containing more than 48,000 foods are available on the Internet
- More than 27,000 foods from 25 EuroFIR countries (and USA) have been LanguaL indexed
- Development of the EuroFIR eSearch Facility, which allows the simultaneous online search in FCDBs worldwide
- A quality framework for both laboratories producing data and compilers has been developed to ensure adherence to quality standards, and to demonstrate transparency and traceability of validated data in European FCDBs
- Recommendations form basis of a European standard for food composition data, adopted within the European Committee for Standardisation (CEN TC 387) framework
- Data quality assessment systems for published nutrient and non-nutrient values
The EuroFIR Project – Conclusions (2)

- EuroFIR eBASIS, a unique database that collates international research on the composition, biological/toxic effects of plant-based bioactive compounds into a single, comprehensive reference databank, has been established.

- Design and implementation of a process for the identification, prioritisation, collection and analysis of traditional and ethnic foods in Europe.

- An active training and exchange programme for students and young researchers including new eLearning modules.

- The creation of EuroFIR AISBL for long-durability and support for food composition activities worldwide.

Future Membership Opportunities

- New Ordinary Membership from 1/7/10

- Free trial membership possible from Jan 2010 (on Registration)

- Further news on www.eurofir.net

Or contact Paul Finglas (paul.finglas@eurofir.org) or Simone Bell (simone.bell@eurofir.org)
# Acknowledgements - EuroFIR Partners 2009

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