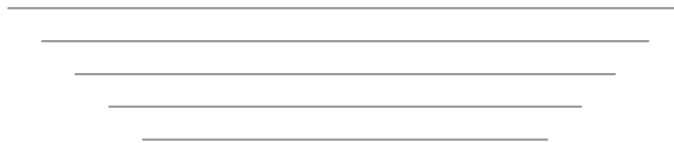


EuroFIR – Results, Achievements and Future Plans

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



EuroFIR Consortium

- 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



What does EuroFIR provide?

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


Consumers –
labelling/information

Food industry –
improve food quality

Health surveys,
health policy –
nutrient intake

Public health
government bodies

15.10.2009 Paul Finglas - EuroFIR






Objectives

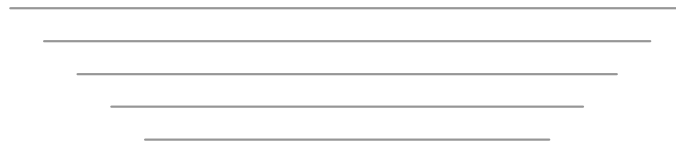
- 1) **Strengthen scientific and technological excellence in food composition databank systems** by integrating at the European level the **critical mass of resources and expertise.....**
- 2) **Identify and provide new information for missing data for nutrients and biologically active compounds** with 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.....

15.10.2009 Paul Finglas - EuroFIR



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 industrytargeted at **evidence based healthier food production**.

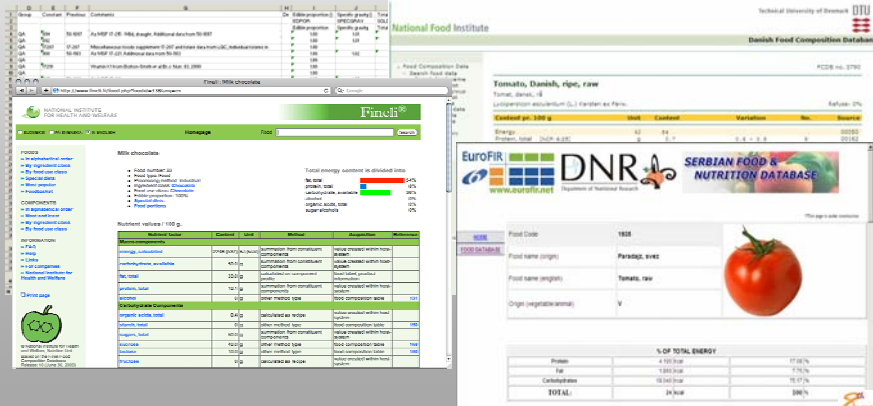


FOOD DATA PLATFORM Anders Møller et al.

EuroFIR
European Food Information Resource

Online access to FCDBs

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




15.10.2009 Paul Finglas - EuroFIR

EuroFIR
European Food Information Resource

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

- Online Databases
- Static information (data in table format)
- Offline Information (publications)
- Information pending





Other online databases

July 2005

Image © 2005 EarthSat









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)

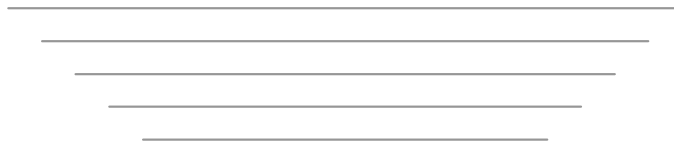





EuroFIR – Foods & Data

20 FCDBs online	> 48.000 Foods
> 13.000 recipes	> 3.500 branded foods

15.10.2009 Paul Finglas - EuroFIR



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

15.10.2009 Paul Finglas - EuroFIR



EuroFIR eSearch Prototype

The EuroFIR eSearch facility is maintained by the EuroFIR Consortium under the EU 6th Framework Food Quality and Safety Programme FP6-513944 © EuroFIR 2009 - Website by Polytec and DFI

Search > Foods Anders Møller > Datasets > Logout

Please select below the items for which you would like to extract details from the associated databases and then click the Show Details link to perform the search.
Blue items do not offer online details at the moment and cannot be selected for detail display. Click an online dataset name for further information on the dataset.
The table can be exported to > Excel

Data Accessibility & Exchange/Research Opportunities

28 Foods found > Select all online foods > Clear selections > Show Details

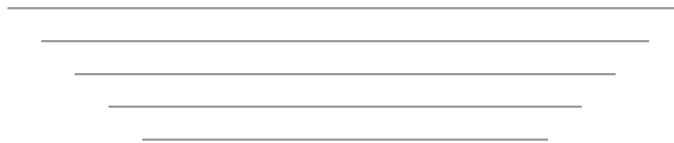
Incl	ID	Dataset	English name	Original name
<input checked="" type="checkbox"/>	006620	Italian food composition database INRAN 2000	TOMATOES, TYPE "SAN MARZANO", RIPENED, FRESH, RAW	POMODORI MATUREI SAN MARZANO, FRESCHI, CRUDI
<input checked="" type="checkbox"/>	25434	AFSSA/CIQUEAL French food composition table version 2008	Sandwich on panini bread, raw ham, mozzarella and tomatoes	Sandwich panini, jambon cru, mozzarella, tomates
<input type="checkbox"/>	318474	GRIN Extract 2009-09-05 TESTVERSION	strawberry-tomato	Physalis grisea (Waterl.) M. Martinez
<input checked="" type="checkbox"/>	0790	Danish Food Composition Databank TESTVERSION 7.01	Tomato, Danish, ripe, raw	Tomat, dansk, rå
<input checked="" type="checkbox"/>	06.753	Norwegian Food Composition Table 2006	Tomato, imported, raw	Tomat, importert, rå
<input checked="" type="checkbox"/>	0791	Danish Food Composition Databank TESTVERSION 7.01	Tomato, imported, ripe, raw	Tomat, importeret, rå
<input checked="" type="checkbox"/>	06.069	Norwegian Food Composition Table 2006	Tomato, Norwegian, raw	Tomat, norsk, rå
<input checked="" type="checkbox"/>	000070	Czech Food Composition database 2009, batch 1	Tomato, raw	ŘÁJČATA
<input checked="" type="checkbox"/>	0195	Icelandic ISGEM database 2008	Tomato, raw	TÓMATAR, hráir
<input checked="" type="checkbox"/>	IS615	Portuguese food composition dataset INSA 2008	Tomato, raw	Tomate cru
<input checked="" type="checkbox"/>	20047	AFSSA NDS documented French dataset created for EPIC 2005	Tomato, raw	Tomate, crue
<input checked="" type="checkbox"/>	20047	AFSSA/CIQUEAL French food composition table version 2008	Tomato, raw	Tomate, crue
<input checked="" type="checkbox"/>	0306	DFI NDS documented by Danish Food Information for EPIC 2005	Tomato, ripe, raw, origin unknown	Tomat, uspec, rå
<input checked="" type="checkbox"/>	0306	Danish Food Composition Databank TESTVERSION 7.01	Tomato, ripe, raw, origin unknown	Tomat, uspec, rå
<input checked="" type="checkbox"/>	06.762	Norwegian Food Composition Table 2006	Tomato, small, cherry, imported, raw	Tomat cherry, importert, rå
<input checked="" type="checkbox"/>	06.754	Norwegian Food Composition Table 2006	Tomato, unspecified type, raw	Tomat, uspesifisert, rå
<input checked="" type="checkbox"/>	60	NEVO-Webservice Preliminary TESTVERSION april 2009	Tomatoes normal raw	Tomat gewoon rauw
<input checked="" type="checkbox"/>	13-388	McC&W Composition of Foods Integrated Dataset (CoF IDS) 2008	Tomatoes, cherry, raw	Tomatoes, cherry, raw
<input checked="" type="checkbox"/>	006600	Italian food composition database INRAN 2000	TOMATOES, FRESH, RAW	POMODORI DA INSALATA, FRESCHI, CRUDI
<input checked="" type="checkbox"/>	11627	USDA National Nutrient Database for Standard Reference, Release 20	Tomatoes, green, raw	Tomatoes, green, raw
<input checked="" type="checkbox"/>	11695	USDA National Nutrient Database for Standard Reference, Release 20	Tomatoes, orange, raw	Tomatoes, orange, raw
<input checked="" type="checkbox"/>	13-460	McC&W Composition of Foods Integrated Dataset (CoF IDS) 2008	Tomatoes, raw	Tomatoes, raw
<input checked="" type="checkbox"/>	11629	USDA National Nutrient Database for Standard Reference, Release 20	Tomatoes, red, ripe, raw, year round average	Tomatoes, red, ripe, raw, year round average
<input checked="" type="checkbox"/>	006680	Italian food composition database INRAN 2000	TOMATOES, RIPENED, CANNED, UNDRAINED, RAW	POMODORI MATUREI, PELATI, IN SCATOLA, CON L
<input checked="" type="checkbox"/>	006610	Italian food composition database INRAN 2000	TOMATOES, RIPENED, FRESH, RAW	POMODORI MATUREI, FRESCHI, CRUDI

vitamin C (ascorbic acid)
Component: VITC
> Excel > Close > Top

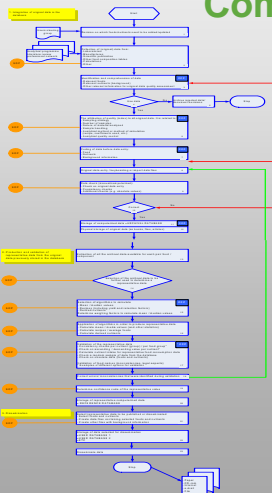
Dataset	English name	Unit	Per	Sel/Val	Min	Max	Std	No	Qual	VTyp	ATyp	MTyp	Mid	MPar	Reference	RTyp	ATyp
Italian food composition database INRAN 2000	TOMATOES, TYPE "SAN MARZANO", RIPENED, FRESH, RAW	mg	W	24						BE	X	X	MIR003				
AFSSA/CIQUEAL French food composition table version 2008	Sandwich on panini bread, raw ham, mozzarella and tomatoes	mg	W							D	N	S	I	MIR007			
Danish Food Composition Databank TESTVERSION 7.01	Tomato, Danish, ripe, raw	mg	W	15	11.3	18.0		8		BE	O	A	MI1053	Wienberg, A., Leth, T.: Overvågningssystem for næringsstoffer, frugt og grøntsager, 1987	R	O	
Norwegian Food Composition Table 2006	Tomato, imported, raw	mg	W	17						BE	D	D	MIR003	Norwegian Food Safety Authority and Directorate for Health and Social Affairs. Analyses planned in 2001. Unpublished.	X	D	
Danish Food Composition Databank TESTVERSION 7.01	Tomato, imported, ripe, raw	mg	W	18	12.3	23.1		9		BE	O	A	MI1053	Wienberg, A., Leth, T.: Overvågningssystem for næringsstoffer, frugt og grøntsager, 1987	R	O	
Norwegian Food Composition Table 2006	Tomato, Norwegian, raw	mg	W	17						BE	D	D	MIR003	Statens råd for ernæring og fysisk aktivitet and Statens næringsmiddeltilsyn. Analyses planned in 1994. Unpublished.	X	D	
AFSSA NDS documented French dataset created for EPIC 2005	Tomato, raw	mg	W	18	11.3	26.5		17	B	AV		D	MI0001	Feinberg, M., Favier, J.C.: Ireland-Ripert, J.: Répertoire Général des Aliments: Table de composition, Lavoisier Tec & Doc, Paris, 1991.	B	F	
Portuguese food composition dataset INSA 2008	Tomato, raw	mg	W	20						BE	X	X	MIR003				
AFSSA/CIQUEAL French food composition table version 2008	Tomato, raw	mg	W	16.7	12.5	26.5		12	B	MN	S	D	MIR003	Astier-Dumas M (1983). Valeurs nutritionnelles de quelques produits prêts à être consommés. Centre Recherche Foch, Paris.	B	P	
Czech Food Composition database 2009, batch 1	Tomato, raw	mg	W	18.7						BE	S	S	MIR003	Hodnota získaná výpočtem podle interních algoritmů databáze. Value achieved by calculation using internal algorithms of the database.	F	S	
Danish Food Composition Databank TESTVERSION 7.01	Tomato, ripe, raw, origin unknown	mg	W	18.7						BE	S	CG	MIR003	Value achieved by calculation of different analytical data.: Værdi beregnet ved omregning af forskellige analysedata.			
DFI NDS documented by	Tomato, ripe, raw	mg	W	20						BE		CG					

QUALITY STANDARDS

Maria Antonia Calhau/Isabel Castanheira
et al.








Compilation Flow Chart – CCPs & SOPs



- 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

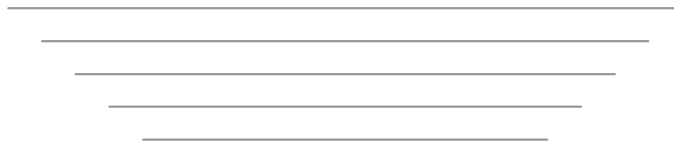


CEN-Project – TC 387 Project Committee – “Food composition data” led by SIS & NFA (2008)

- 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

15.10.2009 Paul Finglas - EuroFIR



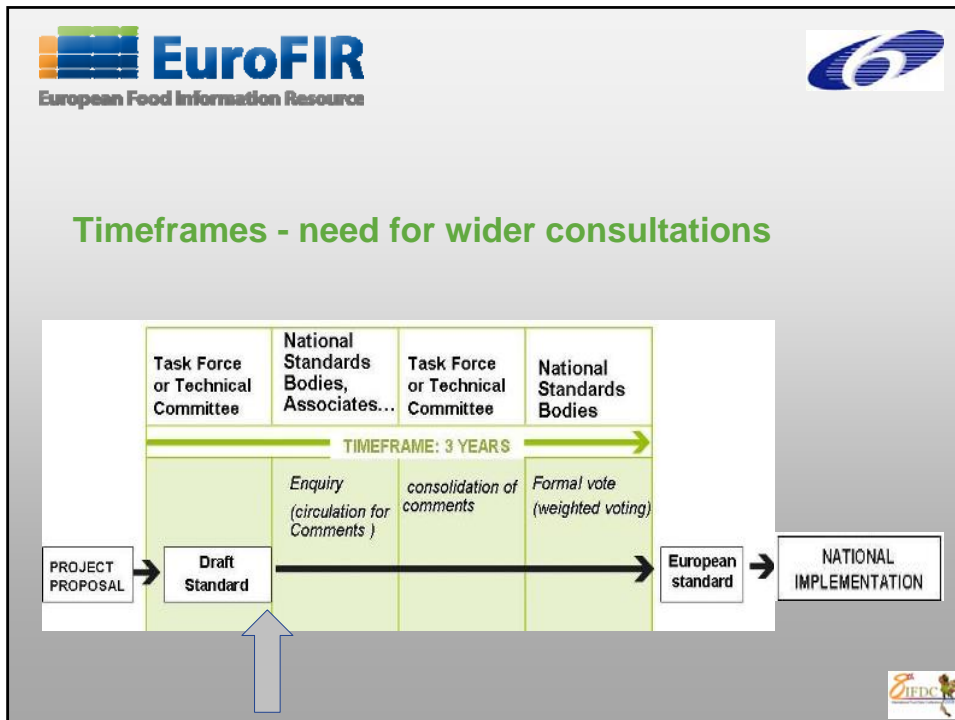





ADVANTAGES OF A CEN STANDARD – encompasses principles of Greenfield & Southagte

- 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



15.10.2009 Paul Finglas - EuroFIR






TRADITIONAL FOODS
Antonia Trichopoulou & Helena Costa

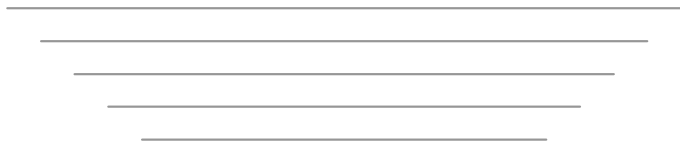


OBJECTIVES OF WP 2.3.1

- 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

Helena S. Costa - INSA, Portugal










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



Helena S. Costa - INSA, Portugal

  <p style="text-align: center;">SELECTED TRADITIONAL FOODS PER COUNTRY</p>	 <p>Austria Vegetable soup (National name: Gemüsesuppe) Viennese Schnitzel (National name: Wiener Schnitzel – see opposite) Cabbage and Noodles (National name: Krautleckertl) Potato dumplings (National name: Erdäpfelknödel) Apple strudel (National name: Apfelstrudel)</p>	
	 <p>Belgium Shrimp croquette (Dutch name: garnalkroket) Flemish stew (Dutch name: Vlaamse stoofkarnade) Meat loaf, meat balls (Dutch name: vleesbrood, vleesballetjes) Gratin of Belgian endives with ham and cheese sauce (Dutch name: gratineerde hespenrolletjes met witloof en kaasaus) Belgian (Brussels) waffles (Dutch name: Brusselse beslagwafel) – see opposite</p>	
	 <p>Bulgaria Cold soup Tarator (National name: Tarator) Veal " Priest's " stew (National name: Teleshko " Popska " yahnia) Netties with rice (National name: Kopriva s oriz) – see opposite Pepper relish (National name: Lyutenitsa) Pumpkin pastry (National name: Sladkish ot tikva)</p>	

  <p style="text-align: center;">SYNTHESIS REPORT ON TRADITIONAL FOODS</p>	<p>This work was completed on behalf of the European Food Information Resource (EuroFIR) Consortium and funded under the EU 6th Framework Food Quality and Safety thematic priority. Contract FOOD – CT – 2005-513944.</p>	 <p>www.eurofir.net</p> <p>Synthesis report No 6: Traditional Foods in Europe</p> <p>Dr. Elisabeth Weichselbaum and Bridget Benelam British Nutrition Foundation</p> <p>Dr. Helena Soares Costa National Institute of Health (INSA), Portugal</p>
		



EuroFIR
European Food Information Resource



Österreich
Austrian Government

Traditional foods recipe cards




Traditional foods recipe cards

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 breadcumb mix, butter and margarine are liquefied in a pan until churned; sugar and breadcumbs 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 jacket is filled with the breadcumb 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

Breadcumb mix:
65 g Butter
32 g Margarine
90 g Sugar
60 g Breadcumbs


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)	5.9
of which saturated fatty acids (g)	2.9
Carbohydrates (g)	32.0
of which sugars (g)	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.ifo.oeaw.ac.at/>.
The work was completed within the EuroFIR project funded by the European Commission. Thanks to Gertraud Rufner from the local households for setting up for recipe recording and to Katharina Fritze for her assistance in reproducing the recipe.



EuroFIR
European Food Information Resource



EuroFIR
European Food Information Resource



OUTPUT AND BENEFITS

Enhanced knowledge
of traditional food composition

Enhanced
data quality

Traceability
information



**WP 2.3.1
Traditional
Foods**

Nutritional
information for industry

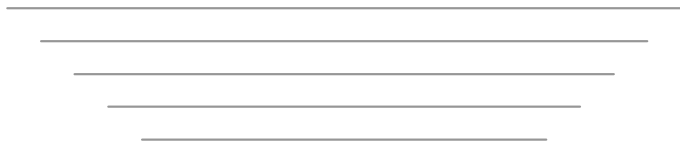
Guarantee food
production authenticity

Helena S. Costa - INSA, Portugal






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



```

graph LR
    A[Food Composition Data Compiler Organisations] <--> B[EuroFIR AISBL]
    C[Laboratories] <--> B
    B <--> D[Academia]
    B <--> E[Industry]
    B <--> F[Regulators]
  
```

15.10.2009 Paul Finglas - EuroFIR



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

8th International Food Data Conference

October 1-3, 2009

Bangkok, Thailand

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

Bunter Fruchtsalat

170 kcal
 E 3 g
 F 2 g
 K 31 g
 15 min.

Zutaten
 Anleitung
 In Speiseplan eintrag
 In Einkaufsliste eintra

Julia
 weiblich - 21 Jahre
 62 kg - 167 cm
 BMI: 22.2
 Ziel: 60 kg

besser essen

Tagesübersicht

Verplant		Bedarf
950 kcal	+	1576 kcal
52 g	E	59 g
45 g	F	52 g
80 g	K	216 g

15.10.2009

Paul Finglas - EuroFIR





Further applications...

15.10.2009

Paul Finglas - EuroFIR



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

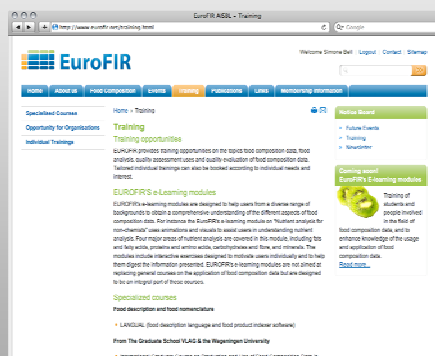
The EuroFIR Project – Conclusions (2)

- *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

Institute of Food Research (UK)
Graz University of Technology (AT)
Ghent University (BE)
Nutrienten Belgie vzw (BE)
Institute of Reference Materials and Measurements (BE)
National Centre of Public Health Protection (BG)
National Food Institute, Technical University of Denmark (DK)
National Public Health Institute (FL)
University of Helsinki (FL)
Agence Française de Sécurité Sanitaire des Aliments (FR)
Matis Food Research, Innovation & Safety (IS)
Max Rubner-Institut (DE)
Verein zur Förderung des Technologietransfers an der Hochschule Bremerhaven e. V. (DEU)
National and Kapodistrian University of Athens (GR)
Agricultural University of Athens (GR)
University College Cork (IE)
Ben-Gurion University of Negev (IL)
Istituto Nazionale di Ricerca per gli Alimenti e la Nutrizione (IT)
Istituto per lo Studio e la Prevenzione Oncologia (IT)
Wageningen University (NL)
University of Oslo (NO)
National Food and Nutrition Institute (PL)
Instituto Nacional de Saúde Dr. Ricardo Jorge (PT)
University of Vienna (AT)

Centre for Superior Studies on Nutrition & Dietetics (ES)
University of Granada (ES)
Food Research Institute (SK)
Swedish National Food Administration (SW)
Swedish University of Agricultural Sciences (SW)
Tubitak Marmara Research Centre, Food Institute (TR)
British Nutrition Foundation (UK)
European Molecular Biology Laboratory – European Bioinformatics Institute (UK)
The Food and Environment Research Agency (UK)
University of Leeds (UK)
International Life Sciences Institute (European Branch) (BE)
University of Surrey (UK)
Baigent Ltd (UK)
RIKILT – Institute of Food Safety (NL)
Polytec (DK)
Ian D Unwin Food Information Consultancy (UK)
State Environmental Health Centre (LT)
ETH Zurich (CH)
Institute of Medical Research, University of Belgrade (YU)
Food Centre of Food and Veterinary Service of Latvia (LV)
Danish Food Information (DK)
Foodcon (BE)
Institute of Public Health and the Environment (NL)
EuroFIR AISBL (BE)

