

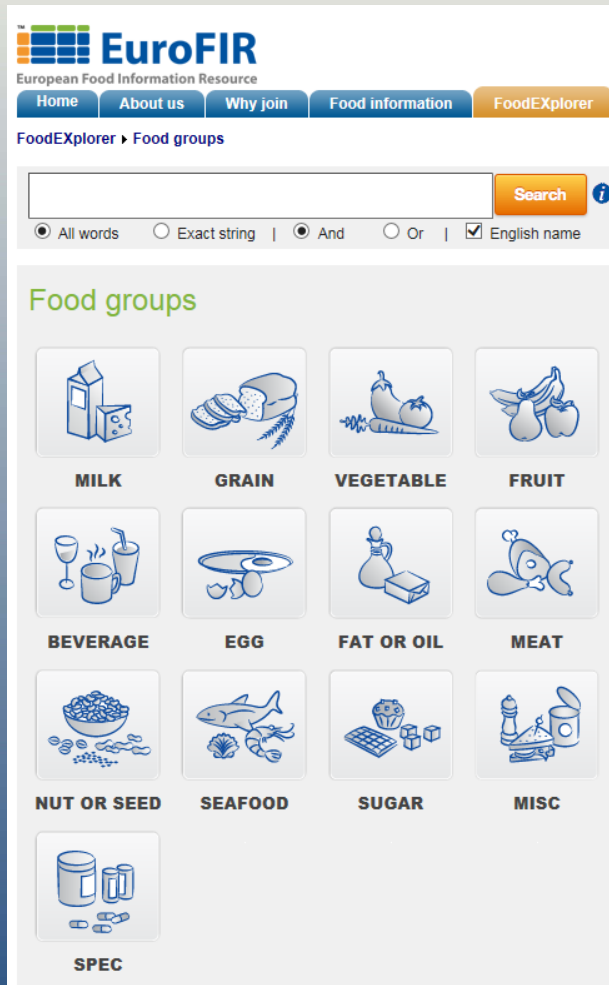
# Harmonised value documentation in FoodEXplorer

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With acknowledgements to all national compilers in Europe

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# FoodEXplorer: Food composition data



- User-friendly web interface
- Data on foods and nutrient composition
- Harmonised food description and value documentation
- Simultaneous search and comparison of standardized food composition databases (FCDB)
- Simple and advanced search options
- Accessible for EuroFIR members
- Available for commercial clients

# Datasets in FoodEXplorer

## COUNTRIES

Select all/Unselect all

- |  |   |
|--|---|
| <input checked="" type="checkbox"/>  Austria          | <input checked="" type="checkbox"/>  Belgium       |
| <input checked="" type="checkbox"/>  Bulgaria         | <input checked="" type="checkbox"/>  Canada        |
| <input checked="" type="checkbox"/>  Czech Republic   | <input checked="" type="checkbox"/>  Denmark       |
| <input checked="" type="checkbox"/>  Finland          | <input checked="" type="checkbox"/>  France        |
| <input checked="" type="checkbox"/>  Greece           | <input checked="" type="checkbox"/>  Iceland       |
| <input checked="" type="checkbox"/>  Ireland          | <input checked="" type="checkbox"/>  Italy         |
| <input checked="" type="checkbox"/>  Italy            | <input checked="" type="checkbox"/>  Japan         |
| <input checked="" type="checkbox"/>  Latvia          | <input checked="" type="checkbox"/>  Lithuania    |
| <input checked="" type="checkbox"/>  Netherlands    | <input checked="" type="checkbox"/>  New Zealand |
| <input checked="" type="checkbox"/>  Norway         | <input checked="" type="checkbox"/>  Poland      |
| <input checked="" type="checkbox"/>  Portugal       | <input checked="" type="checkbox"/>  Serbia      |
| <input checked="" type="checkbox"/>  Slovakia       | <input checked="" type="checkbox"/>  Slovenia    |
| <input checked="" type="checkbox"/>  Spain          | <input checked="" type="checkbox"/>  Sweden      |
| <input checked="" type="checkbox"/>  Switzerland    | <input checked="" type="checkbox"/>  Turkey      |
| <input checked="" type="checkbox"/>  United Kingdom | <input checked="" type="checkbox"/>  USA         |

- 30 National datasets in FoodExplorer from 29 countries
- 59.672 foods
- 2.351.729 nutrient values

# FoodEXplorer: Data as good as provided

Provided to EuroFIR by national compilers

- Training and feedback is given

Quality refers to

- Complete data
- Consistent data
- Retrievable data

for Food description and Value documentation

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# Evaluation of FoodEXplorer data

## Included

- 26 European databases
- 40.476 foods
- 292.240 macronutrient values
- Mandatory food and value documentation entities for FoodEXplorer

## Macronutrients

- ENERC
- PROT
- CHO/CHOT, STARCH, SUGAR, FIBT
- FAT, FAMS, FAPU, FASAT
- WATER
- ALC
- ASH

# Value documentation entities

- Component IDs, units, matrix unit, references
- **Value type**; describes value (e.g. average, trace)
- **Method type**; how value was obtained (analysed, calculated)
- **Acquisition type**; origin of the value (laboratory, label, FCT)
- **Reference type**; e.g. database, report, journal article
- **Method indicator**; which method was used

# LanguaL coding

Describes foods using facets

- EuroFIR food group classification (Facet A) (coded 61%)
- needed to allow searching by EuroFIR food groups



# Component identification

Component ID from EuroFIR thesaurus

Complete and uniform component IDs, exceptions:

- Carbohydrates (CHO or CHOT)
- Mono unsaturated fatty acids (all or cis only)

Components not fully comparable

- Different units per component, e.g. g or mg for protein
- Different formulas to derive component values, e.g. energy



# Value documentation macronutrients

Unit

- g (80%)

Matrix unit

- per 100 g (97%)

Value type

- Best estimate (50%), Average/mean (18%), Logical zero (11%)

Acquisition type

- Created in host system (52%), FoodCompTable (24%), Laboratories (6%)

Method type

- Not known (38%), Recipe and formulas (32%), Analytical results (16%)

Reference type

- Missing (65%), Book/file or database (18%)

Reference citation

- Missing (68%)

# Method indicator

Details how value is obtained (analytical/calculation/imputation)

Example  
1: MI1137

- High-performance liquid chromatography

Example  
2: MI0114

- Energy (kJ) calculated according to EU regulation 1169/2011

Method  
Indicator

- Missing (49%), Analytical methods (4%), Calculation/imputation (45%)

# Achievements in Europe

EuroFIR standard  
for data  
documentation

- Link to EuroFIR thesaurus: needs continuous updates

Documented  
datasets in Europe

- Needs continuous work to maintain documentation
- Training options needed

FoodEXplorer tool  
for simultaneous  
searches

- Easy way to update versions needed

# Conclusions

## Standardised value documentation

- Great advantage in data comparison
- Does not guarantee full comparability

## This study reveals

- Similarities and differences in data documentation
- Missing data on method indicators and references

## Steps to improve documentation

- Per national database
- For FoodEXplorer tool (energy and unit conversion)

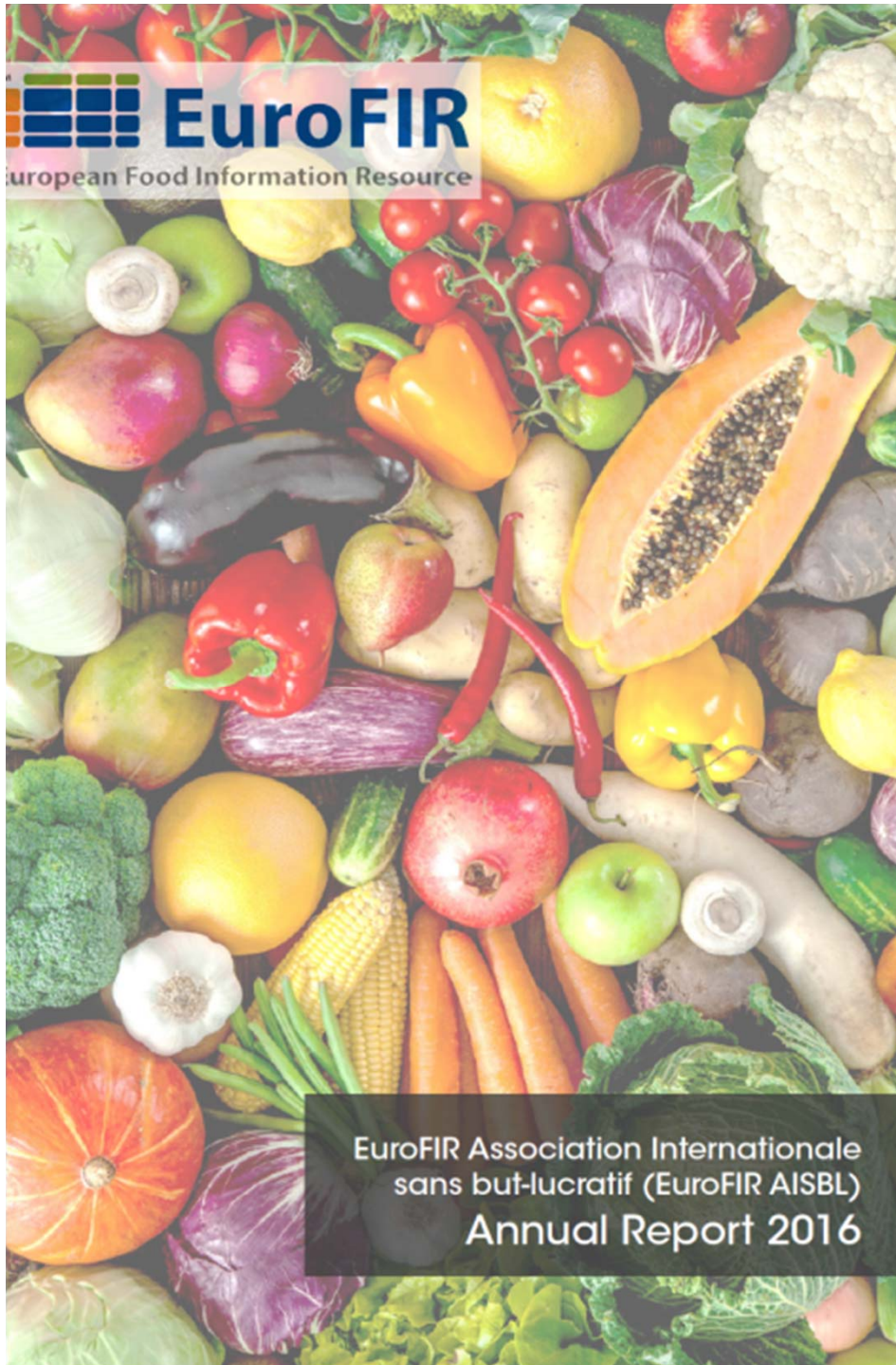
## Datasets in FoodEXplorer

- Need to be similar to current online datasets
- Easy way to update versions needed

## Work in progress

- Improve data quality step by step
- Increase (commercial) use of FoodEXplorer data





**EuroFIR**  
European Food Information Resource

EuroFIR Association Internationale  
sans but-lucratif (EuroFIR AISBL)  
Annual Report 2016

Thank you  
for your  
attention!

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