tds exposure

FOODCASE

WP 6 – A TDS Information System

Karl Presser (ETH Zurich)
Sian Astley (EuroFIR AISBL)

Stakeholder Meeting

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Outline

- Information about WP6
- What is a TDS information system
- Look&Feel of a TDS information system
- Why a TDS information system
- Linkage between TDS data, food composition data and consumption data

GENERAL PRESENTATION OF WP6

- WP partners: ETHZ, EuroFIR AISBL, RIVM, INRAN, UGR, NUID UCD, UGENT, INSA and URV
- Main objectives:
  1. Collect requirements for a TDS information system
  2. Create TDS information system
  3. Proposal of data structure and detail for TDS data
  4. Create an automated quality framework for TDS data
- WP6 needs input from most WPs
- WP6 provides output to WP9

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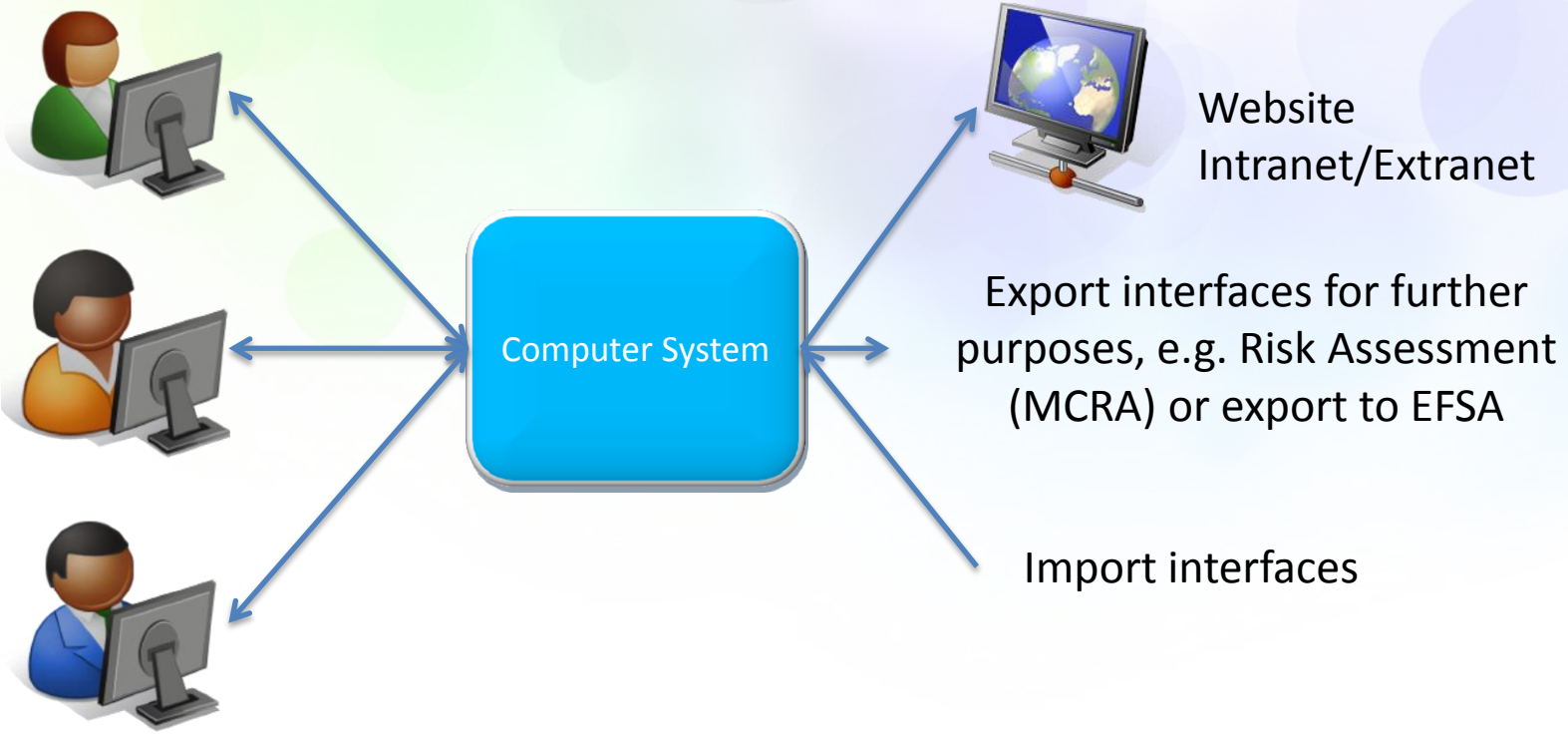
What is a TDS information system

IT stuff to collect, filter, process, create and distribute data.



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What is a TDS information system

Collect food according to consumption info

Food A
Food B
Food C
…

Prepare as consumed (cooking or other kitchen preparation)

Food A
Food B
Food C
…

pool

Representative food X
…

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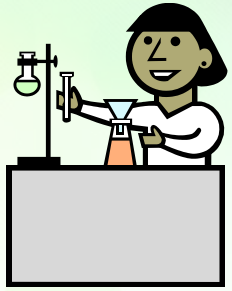
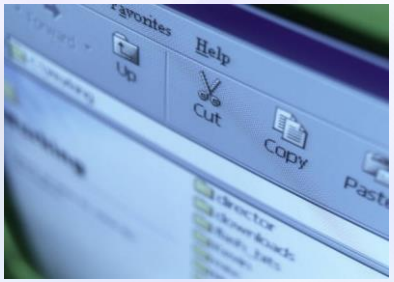
What is a TDS information system





Representative food X
…

→ analyse

Nutrient values
Contaminant values

→ Assess risk

Recommendation

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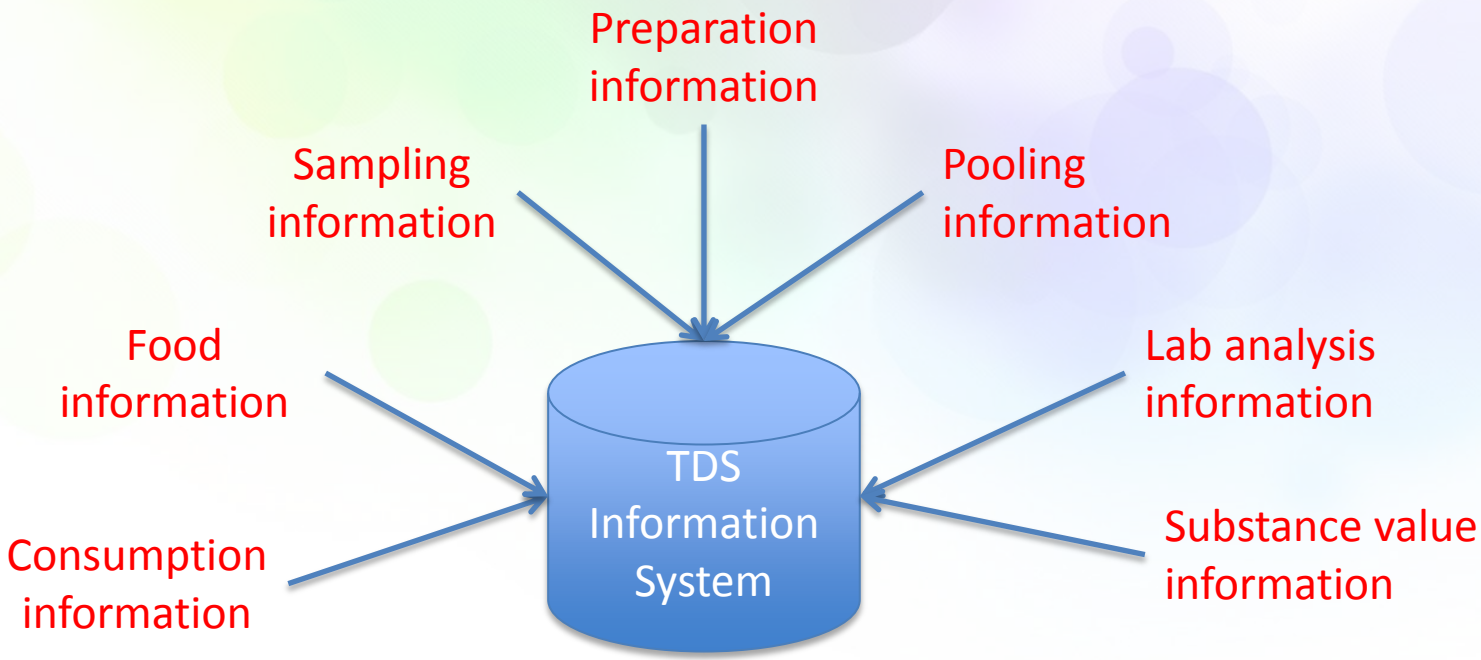
What is a TDS information system



Amount of TDS Data

The following numbers were identified:

- 12 entities (= real world object such as food or value)
- 166 attributes for one compound value

Example:

200 food items with about 5 compounds -> at least 166’000 data points

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Approach and Results

- Collect requirement for TDS information system
  - Literature research
  - Discussion with project partners

  Result: Software specification (52 pages) containing proposal of data structure and detail for TDS data

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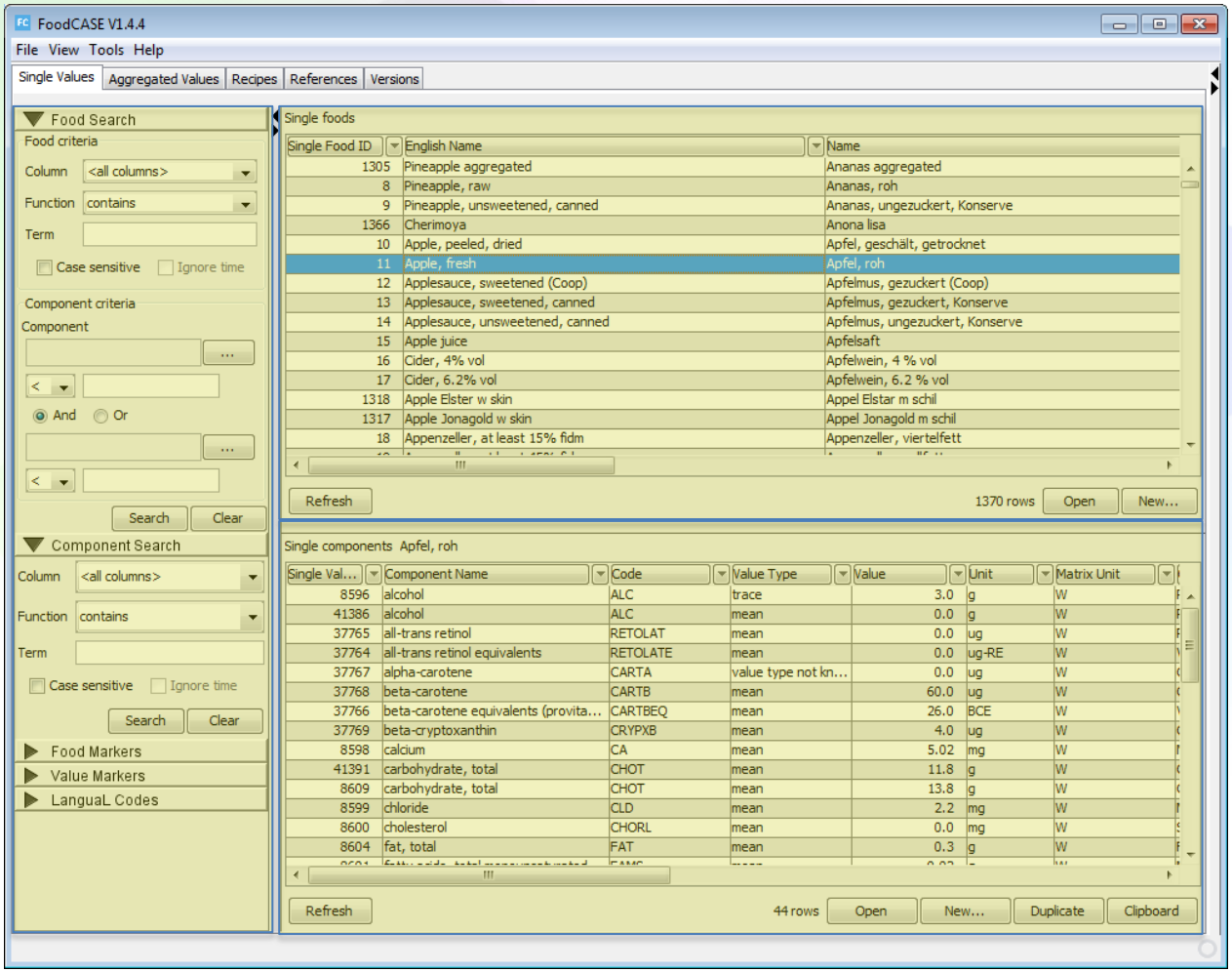
Starting Mask - Overview

- Search Area
- Data Listing Area
- Food items
- Beneficial and harmful substances



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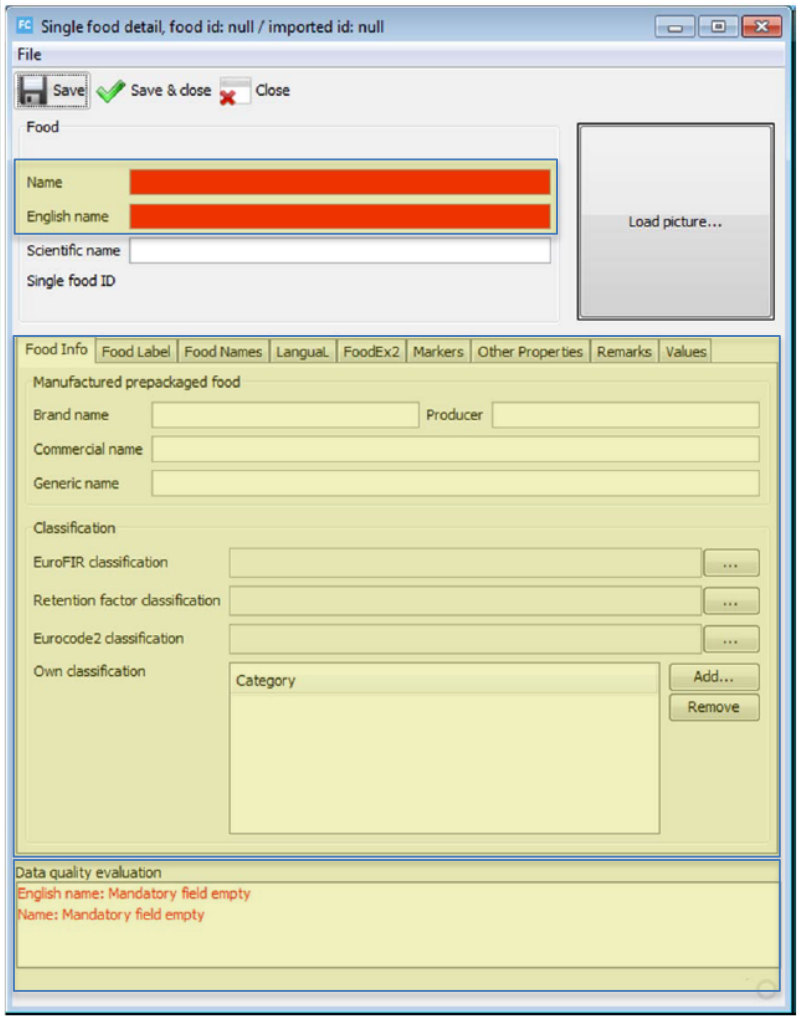
Managing Food

- Mandatory fields
- Many other attributes for a single food
- Data quality panel



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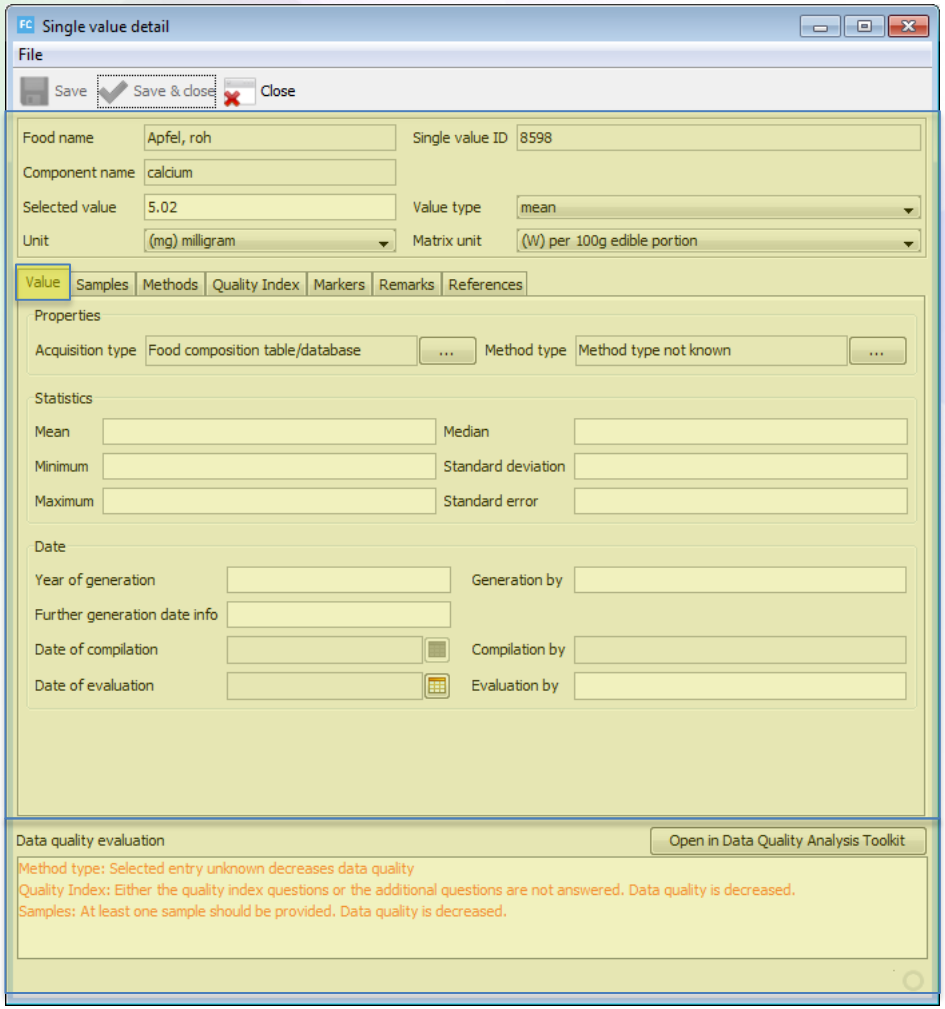
Managing Analysed Values

- Many available attributes
- Data quality panel



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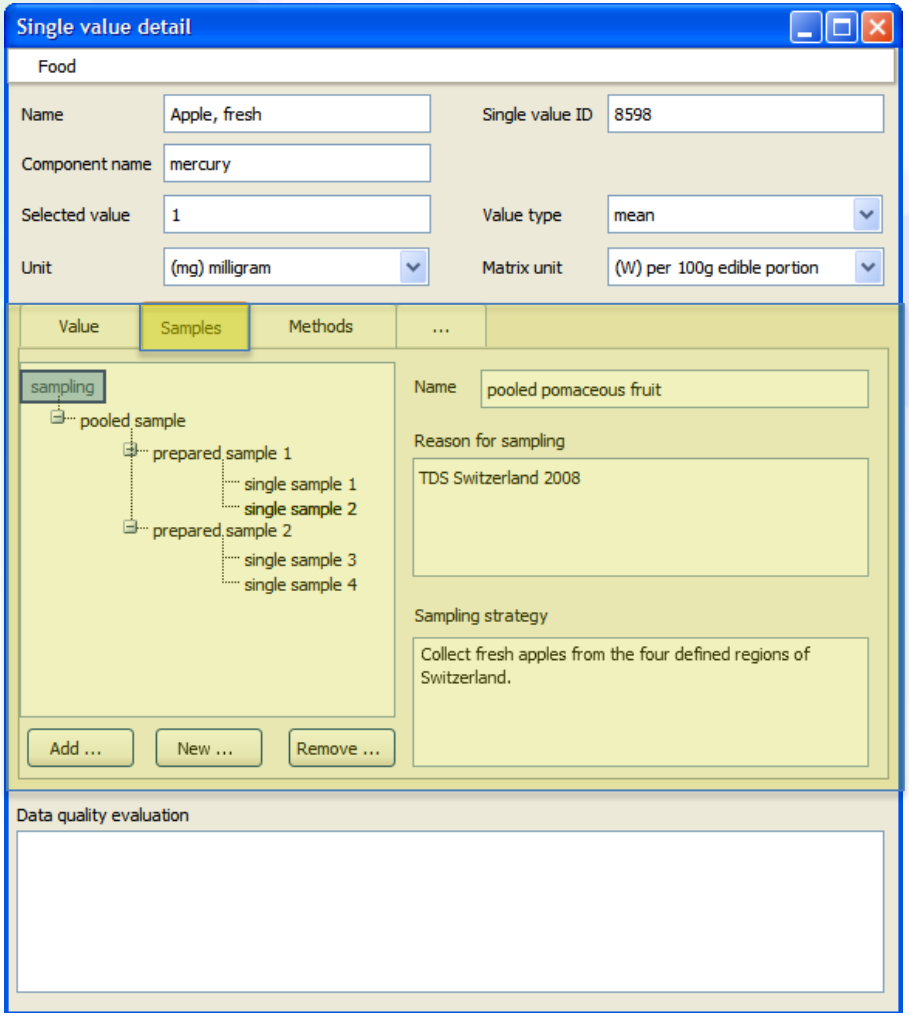
Managing Samples

- Tree view
- Attributes depending on the tree node selection
- Pooled / Prepared / Single sample



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Spreading Analysed Values

1 mg mercury
per 100g

1 mg mercury
per 100g

1 mg mercury
per 100g

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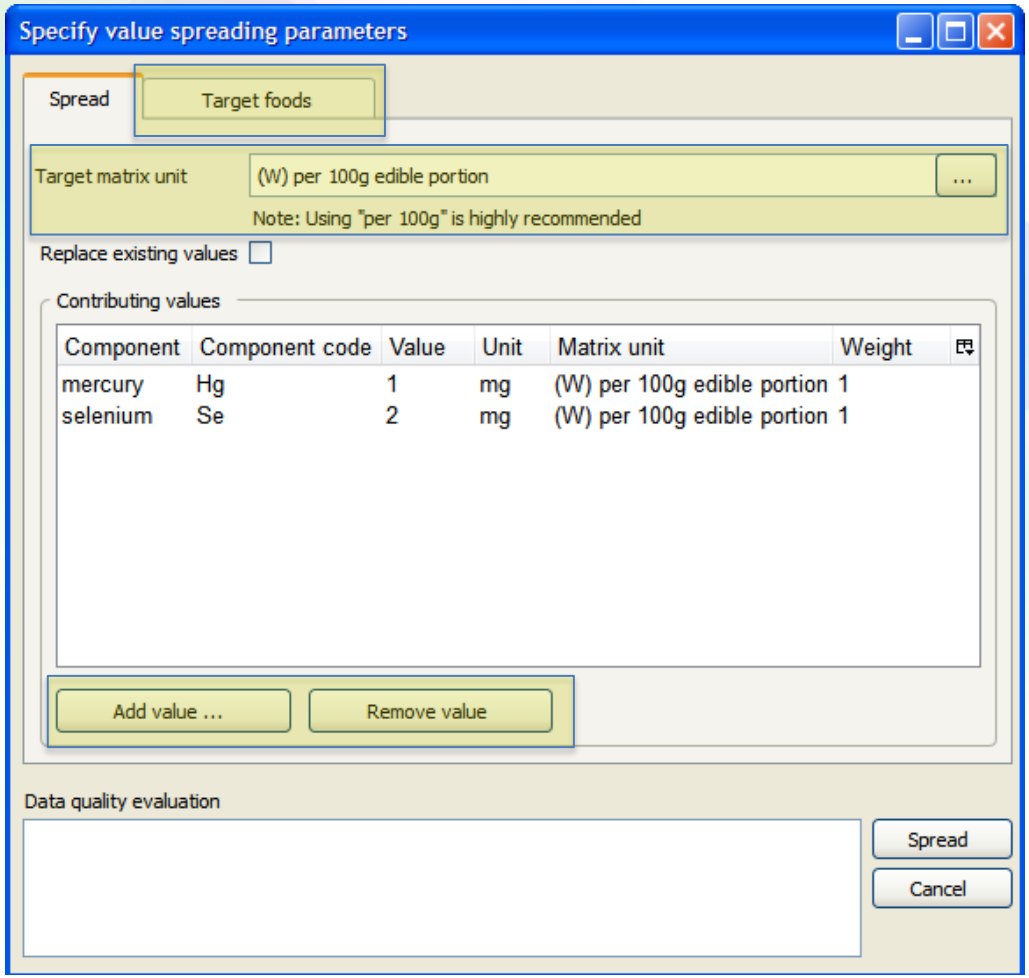
Spreading Analysed TDS Data

- Choose the target matrix unit
- Possibly add additional values or remove values from the list
- Define target foods



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Why a TDS information system

- Store data at a central place
- Store data for long-term access
- Increase the visibility of your work
- Enable other to access your data
- Save time and resources in long run
- Documentation of your data ensures data integrity

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Why a TDS information system

- Facilitate new discoveries
- Enhance access security and minimise risk of data loss
- Meet grant requirements
- Be ready for open data (=publicly funded data must be publicly available)
- See data as a product for which funding were used
- Have automated support to maintain data quality

Why a TDS information system

With a TDS information system

Without a TDS information system

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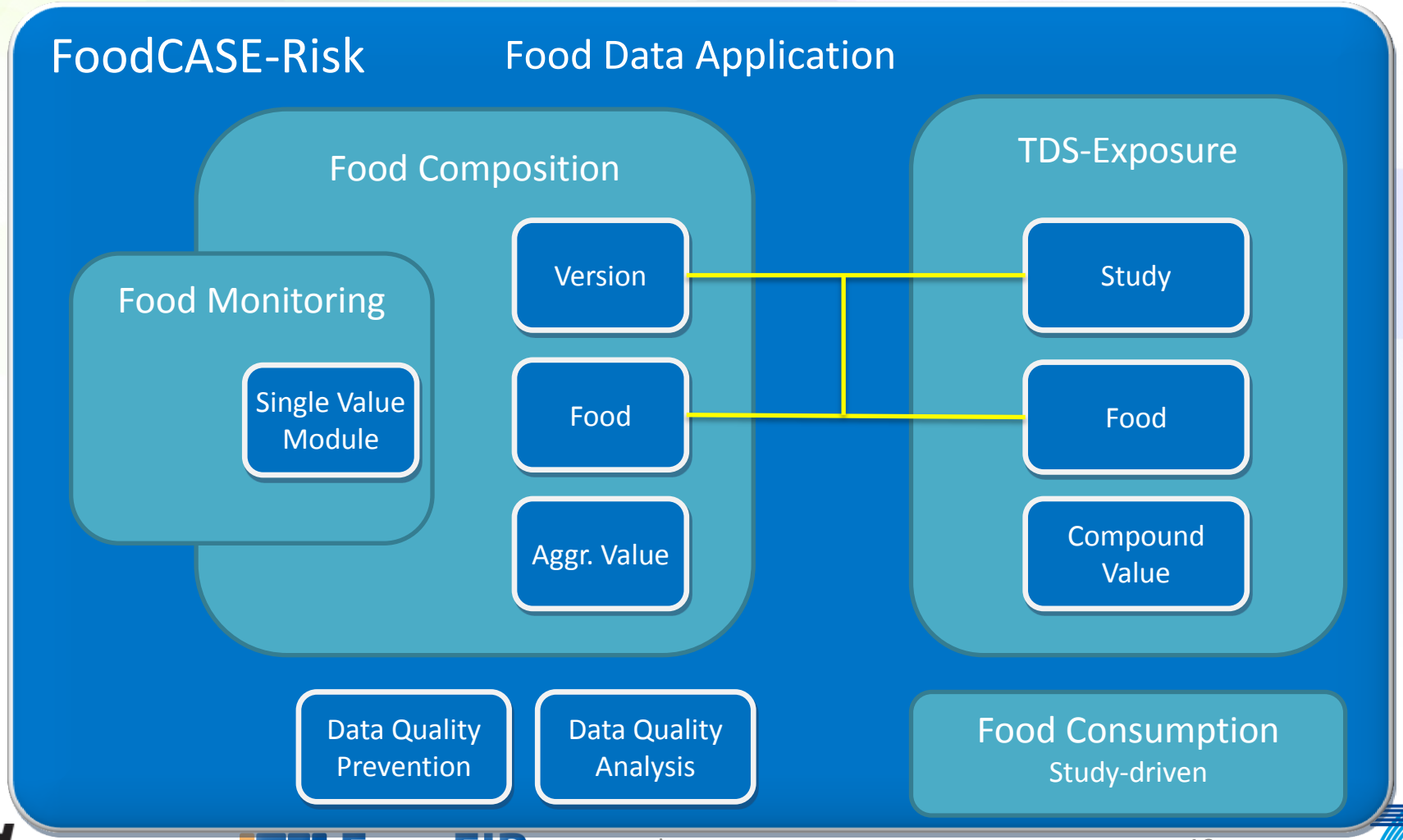
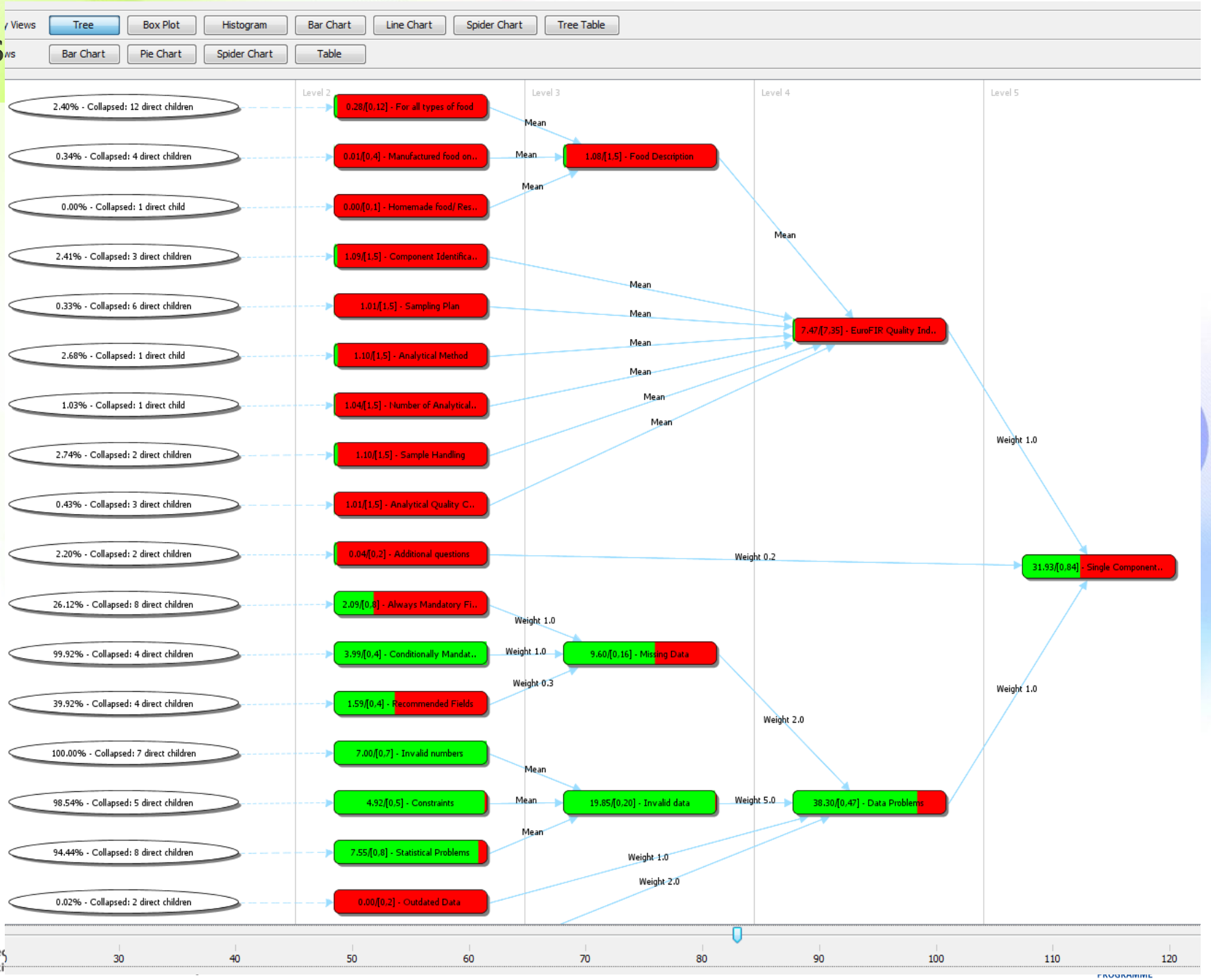
TDS Data in the Context of Food Data



Thank you for your attention

tds


Views
Tree
Box Plot
Histogram
Bar Chart
Line Chart
Spider Chart
Tree Table
Bar Chart
Pie Chart
Spider Chart
Table
Level 2
Level 3
Level 4
Level 5
2.40% - Collapsed: 12 direct children
0.34% - Collapsed: 4 direct children
0.00% - Collapsed: 1 direct child
2.41% - Collapsed: 3 direct children
0.33% - Collapsed: 6 direct children
2.68% - Collapsed: 1 direct child
1.03% - Collapsed: 1 direct child
2.74% - Collapsed: 2 direct children
0.43% - Collapsed: 3 direct children
2.20% - Collapsed: 2 direct children
26.12% - Collapsed: 8 direct children
99.92% - Collapsed: 4 direct children
39.92% - Collapsed: 4 direct children
100.00% - Collapsed: 7 direct children
98.54% - Collapsed: 5 direct children
94.44% - Collapsed: 8 direct children
0.02% - Collapsed: 2 direct children
0.28/[0,12] - For all types of food
0.01/[0,4] - Manufactured food on..
0.00/[0,1] - Homemade food/ Res..
1.09/[1,5] - Component Identifica..
1.01/[1,5] - Sampling Plan
1.10/[1,5] - Analytical Method
1.04/[1,5] - Number of Analytical..
1.10/[1,5] - Sample Handling
1.01/[1,5] - Analytical Quality C..
0.04/[0,2] - Additional questions
2.09/[0,8] - Always Mandatory Fi..
3.99/[0,4] - Conditionally Mandat..
1.59/[0,4] - Recommended Fields
7.00/[0,7] - Invalid numbers
4.92/[0,5] - Constraints
7.55/[0,8] - Statistical Problems
0.00/[0,2] - Outdated Data
1.08/[1,5] - Food Description
9.60/[0,16] - Missing Data
19.85/[0,20] - Invalid data
7.47/[7,35] - EuroFIR Quality Ind..
38.30/[0,47] - Data Problems
31.93/[0,84] - Single Component..
Mean
Weight 0.2
Weight 1.0
Weight 0.3
Weight 2.0
Weight 5.0
30
40
50
60
70
80
90
100
110
120

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TDS Data on a Time Scale

Assemble food list

Assemble shopping list plus additional information

Form pool groups

…

Enter substance values

Archive data

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FoodCASE-Risk can provide food items, consumption data and former TDS data

Possibility to change to a preferred tool such as EXCEL or to use a mix

Use FoodCASE-Risk