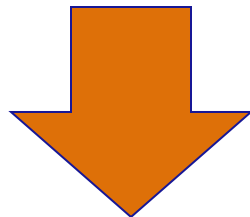# Standard Sample Description for food and feed: towards EU-wide harmonization of data collection and transmission
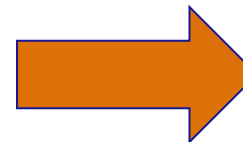
Sofia, Bulgaria, 14-15 May 2012

Before Standard Sample Description

- No official format specified

- Poor data quality

- Difficult to manage high volumes of data

- Different formats

**Harmonised way to collect data on chemical contaminants and residues needed**

Implementation of a Standard

Objectives of SSD:

- **Harmonising** chemical occurrence and pesticide residue data collection in the EU

- Make **efficient** the data transmission between Member States and EFSA

  - ➢ Optimising human resource employed
  - ➢ Quality of data transmitted
  - ➢ Capacity of managing high volumes of data
  - ➢ Capacity to analyse the data and to produce valuable reports for different stakeholders
  - ➢ Flexibility to meet needs of many data collections now and in the future

What is the Standard Sample Sample Description (SSD) ?

- A *list of data elements* that are **standardised** and can be conveniently used by both data providers and data recipients to fully **describe** samples and analytical parameters for evaluation purposes.

- The SSD includes controlled terminologies and validation rules to guarantee data quality (in data export, transmission and storage).
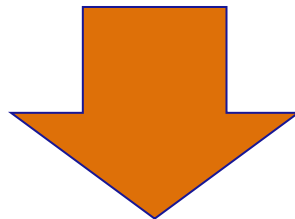
- A model to *harmonise* the collection of a wide range of measurements in the area of food and feed safety assessment.

Guidance documents (1)

- **Guidance on Standard Sample Description for food and feed**: http://www.efsa.europa.eu/en/efsajournal/pub/1457.htm

  Specifications aimed at harmonising the collection from Member States of analytical measurement data for the presence of harmful or beneficial chemical substances in food, feed and water.

  – Reviewed by networks end 2009; published Jan 2010
  – Contains:

    1. Variables (sample description,laboratory,organisations,analytical result description)
    2. Catalogues: (Languages (ISO-639-1), Countries (ISO -3166-1-alpha-2), NUTS (Nomenclature des Unités Territoriales Statistiques) etc…

Guidance documents (2)

- *Guidance on Data Exchange*:
  http://www.efsa.europa.eu/de/efsajournal/pub/1895.htm

  - Reviewed by network Sep 2009; Published Oct 2010
  - Complementary to the first guideline
  - Contains:

    - transmission mechanisms
    - File formats→ XML schemas
    - Security requirements
    - Web services and FTP message exchange protocols (including validation messages) to be used for automatic exchange

Format and requirements

- SSD is a generic format for all data collections on contaminants and pesticides

- SSD defines 76 elements from which aprox 20 are mandatory elements to enable a unique description of the sample

- Specific requirements maybe needed to cover specific risk assessment areas or contaminants group (additional mandatory fields for specific contaminants e.g analysed as pursached/consumed in furan)

→ mandatory data elements (generic +specific) must always be completed!

Formats and requirements
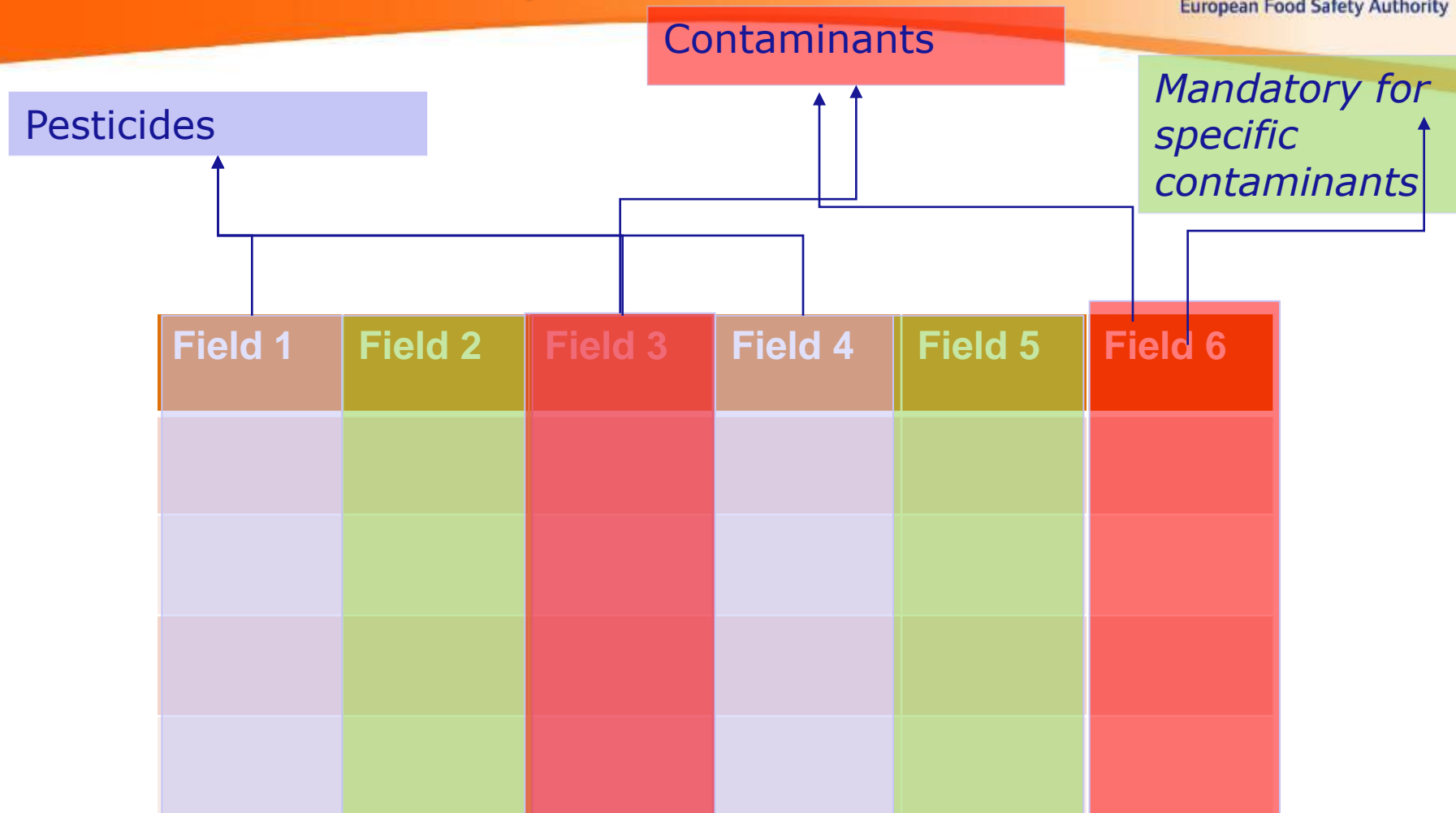
How to submit your data

- The official file format for the Standard Sample Description is XML (eXtensible Markup Language)

- File in **XML** can be **manually uploaded on the DCF** or electronically transmitted to EFSA via FTP or SOAP protocols

- An Excel (R) simplified format is available to support member states not capable of submitting XML files (Not for article 36 applicants)

Example from Excel

	A	B	C
1	labSampleCode	lang	sampCoun
2	IT-2009-11-23-000001	en	IT
3	IT-2009-11-23-000001	en	IT
4	IT-2009-11-23-000002	en	IT
5	IT-2009-11-23-000002	en	IT
6	IT-2009-11-23-000002	en	IT
7	IT-2009-AD-000256	en	IT
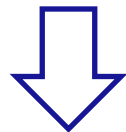
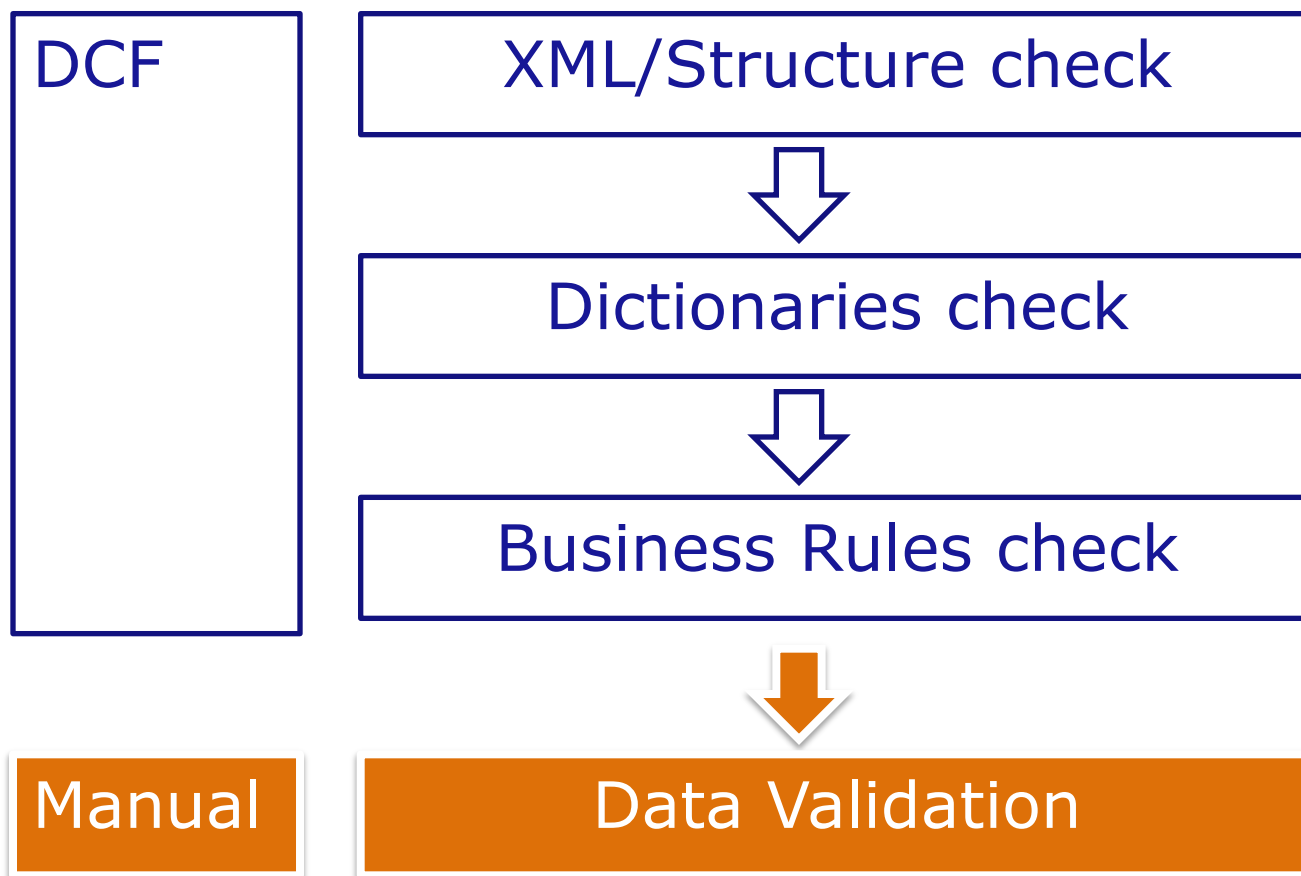Data are transformed in XML
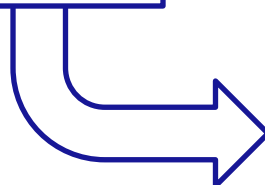
```xml
<?xml version="1.0" encoding="UTF-8"?>
<message xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="
http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="StandardSampleDescription.xsd">
    <header>
        <type>dcfmsg</type>
        <version>0.41</version>
        <code>1</code>
        <receiverCode>EFSA</receiverCode>
        <senderCode>EFSA</senderCode>
        <sentDate>2010-01-27T22:40:27+01:00</sentDate>
    </header>
    <dataTrx opType="01" dcCode="OCC_TR2010">
        <dataset>
            <sample>
                <labSampCode>IT-2009-11-23-000001</labSampCode>
                <lang>en</lang>
                <sampCountry>IT</sampC
                <sampArea>ITD52</sampA
                <origCountry>IT</origCoun
                <origArea>ITD5</origArea>
                <procCountry>IT</procCou
                <prodCode>C03_2</prodC
                <prodText>Olive oil</prodT
                <prodProdMeth>PD08A</p
                <prodTreat>T106A</prodTr
```

XML schema is published with the guidance on data exchange:
http://www.efsa.europa.eu/en/scdocs/doc/1895ax1.zip

StandardSampleDescription.1.0.xsd

Validation process

DCF

XML/Structure check

⬇

Dictionaries check

⬇

Business Rules check

⬇

Manual

Data Validation

Maintenance of the Standards (I)

- Standard Sample Description→ live standard for transmitting data

- Challenge:
  - A standard should be **stable** so that Member States can implement it once and then use it for several years
  - A standard **has to change** to reflect a changing environment e.g new analytical methods

Maintenance of the Standards (II)

- Standard Sample Description data structure should change very little

- Standard terminologies may change and improve at defined time to allow the implementation in local system

- Maintenance window:
  - ✓ Oct – Nov each year where amendments should be proposed,
  - ✓ **Jan – New version published**

WG on Extension of SSD

- Ad-hoc WG on extension of SSD v.1.0 to zoonoses (isolate base) and additives is ongoing to define a SSD v.2.0.
- SSD v.2.0 Backward compatible with SSD v.1.0
- Available for consultation in November 2012
- Published in May 2013
- Parallel running of SSD v.1.0 and SSD v.2.0 during data collection 2013.
- To decide switch-off SSD v.1.0.

Additions in the SSD catalogues

- Possible addition of new elements in the terminologies to support new data collections (new substances, analytical methods, sampling methods..)

- EFSA can provide you with a new code of missing elements but urgent inclusions cannot be of entire branches e.g. All additives

Conclusions

- SSD **supports the collection** of risk assessment data in different areas

- Easy submit **high quality data** on contaminants and pesticide residues in food and feed

- **Cooperation** with all organisations

- Stimulate **network approach** at national level (use of a common format for collecting data, efficiency in retrieving missing information and clarifications)

Acknowledgement

- **Ruth Roldan: Data manager**

DCM thanks you for your collaboration!

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