



EU-FORA Fellowship Programme

Overview of EFSA reporting tools for the continuous collection of chemical contaminants occurrence data

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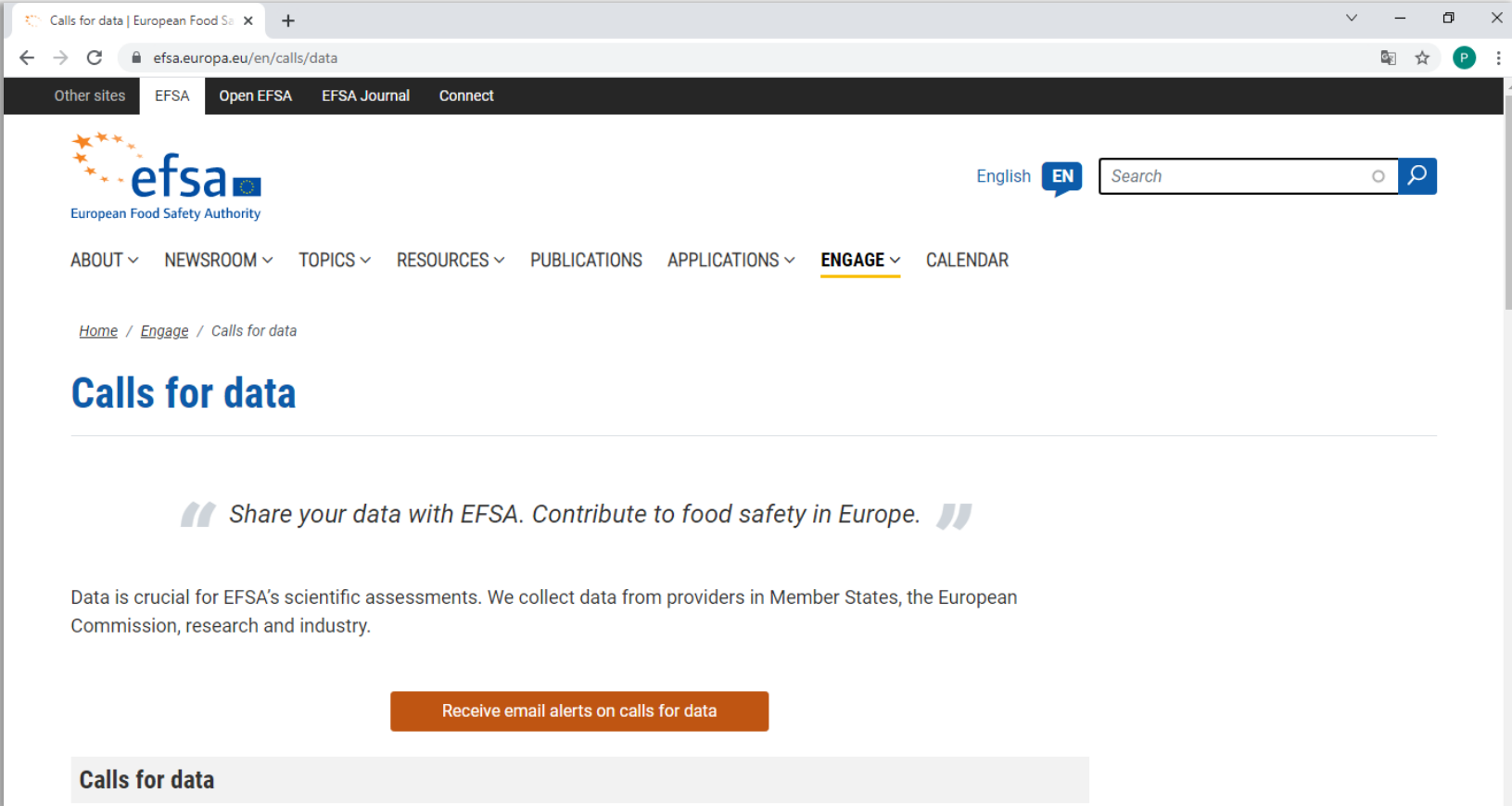
Member States have the responsibility to transmit to EFSA all the data produced in the context of the official control of food and feed chain;



Share your data with EFSA.
Contribute to food safety in Europe.



EFSA gathers data through continuous calls to multiple providers in Member States



The screenshot shows the EFSA website's 'Calls for data' page. The browser address bar displays 'efsa.europa.eu/en/calls/data'. The navigation menu includes 'Other sites', 'EFSA', 'Open EFSA', 'EFSA Journal', and 'Connect'. The EFSA logo and 'European Food Safety Authority' text are visible. A search bar is set to 'English EN'. The main navigation menu has 'ENGAGE' highlighted. The breadcrumb trail is 'Home / Engage / Calls for data'. The main heading is 'Calls for data'. A quote reads: 'Share your data with EFSA. Contribute to food safety in Europe.' Below this, a paragraph states: 'Data is crucial for EFSA's scientific assessments. We collect data from providers in Member States, the European Commission, research and industry.' An orange button offers to 'Receive email alerts on calls for data'. A footer bar contains the text 'Calls for data'.

EFSA _ Calls for data

EFSA gathers data from multiple providers



efsa
European Food Safety Authority

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Home / Engage / Calls for data

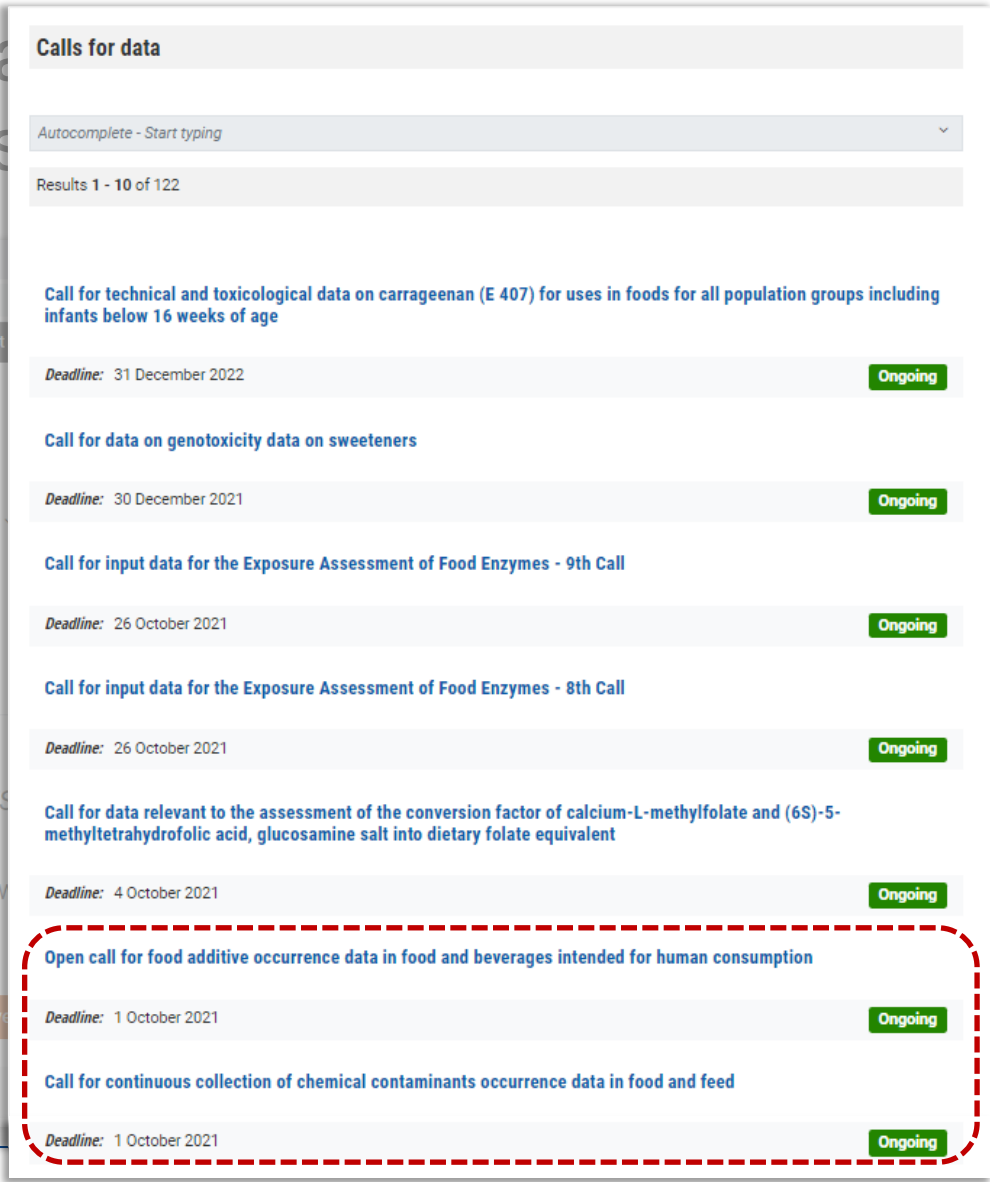
Calls for data

“ Share your data with EFSA ”

Data is crucial for EFSA's scientific assessments. We invite you to share your data with the Commission, research and industry.

Receive

Calls for data




Calls for data

Autocomplete - Start typing

Results 1 - 10 of 122

- Call for technical and toxicological data on carrageenan (E 407) for uses in foods for all population groups including infants below 16 weeks of age**
Deadline: 31 December 2022 **Ongoing**
- Call for data on genotoxicity data on sweeteners**
Deadline: 30 December 2021 **Ongoing**
- Call for input data for the Exposure Assessment of Food Enzymes - 9th Call**
Deadline: 26 October 2021 **Ongoing**
- Call for input data for the Exposure Assessment of Food Enzymes - 8th Call**
Deadline: 26 October 2021 **Ongoing**
- Call for data relevant to the assessment of the conversion factor of calcium-L-methylfolate and (6S)-5-methyltetrahydrofolic acid, glucosamine salt into dietary folate equivalent**
Deadline: 4 October 2021 **Ongoing**
- Open call for food additive occurrence data in food and beverages intended for human consumption**
Deadline: 1 October 2021 **Ongoing**
- Call for continuous collection of chemical contaminants occurrence data in food and feed**
Deadline: 1 October 2021 **Ongoing**



Call for continuous collection of chemical contaminants occurrence data in food and feed

Published: 25 February 2021 Deadline: 1 October 2021 - 23:59 (CEST)

Home / Engage / Calls for data / Call for continuous collection of chemical contaminants ...

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Subr

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- EFSA will only accept data in SSD2 format AND with controlled terminologies
- Data must be submitted in electronic format (XML) to the EFSA Data Collection Framework (DCF)

Excel reporting tools for generating XML files for chemical monitoring

- Excel workbooks specifically customized to support data providers in compiling and reporting chemical monitoring residues data (chemical contaminants, additives, pesticides, and veterinary medicinal product residues (VMPR)) to EFSA according to the SSD2 controlled terminologies.

- Simple and usable tools that allow Member States to create files in line with the SSD2 (Standard Sample Description 2) data model and to generate XML files with the correct structure for harmonised data transmission to EFSA via the DCF (Data Collection Framework).

[Detailed description of the SSD2 data model - *Standard Sample Description ver. 2.0*]

[Technical details and specifications for valid SSD2 XML files - *Guidance on Data Exchange version 2.0*]

- Comprehensive tools that allow data elements to be filled in more easily according to the specific catalogue of controlled terminologies and also to be validated locally and immediately to check if the controlled terminology catalogues are correctly applied, improving the overall quality, consistency and integrity of the data submitted to EFSA

EFSA made available **three types of Excel reporting tools** for XML creation with chemical monitoring data:

- △ **Excel tool FLAT for SSD2 data collection**
- △ **Excel tool WITH METHODS for SSD2 data collection**
- △ **Excel simplified tool for SSD2 data collection**

Available in: <https://zenodo.org/record/3714967#.YV2iC1XMK02>

Excel reporting tools - Types

zenodo.org/record/3714967#.YV2tw1XMK03

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There is a **newer version** of this record available. **Attention to the version**

April 23, 2020 Other Open Access

Tools for reporting chemicals to EFSA

European Food Safety Authority

Member States and other stakeholders compile their data on contaminants and additives, pesticide residues and veterinary drug residues in the tools provided. Tools are structured in accordance with SSD2 guidance and provide features that support manual data entry and creation of the XML files for submission. Please read the relevant instructions before using the tools.

- 'Contaminants_simplified_SSD2.xlsx' for reporting contaminants and food additives. Instructions are in the document 'Instructions for simplified SSD2 template.docx'.
- Excel reporting tools 'Flat' and 'with Methods' for reporting all chemicals. Instructions are in the document 'Instructions for the EFSA Excel Reporting Tools.pdf'.

EU; XLSX; data.collection@efsa.europa.eu

Preview

Files (7.3 MB)

Name	Size	Download
Contaminants_simplified_SSD2.xlsx	76.8 kB	

3,040 views 3,038 downloads

Indexed in OpenAIRE

Publication date: April 23, 2020

DOI: DOI 10.5281/zenodo.3714967

Keyword(s): additives, contaminants, pesticide residues, veterinary drug residues, SSD2, chemicals, data collection, MS Excel, reporting, food samples, feed samples

Subject(s): Chemicals, Data collection, Monitoring

- The **Excel tool FLAT** and the **Excel tool WITH METHODS** contain all the SSD2 mandatory fields and most relevant optional fields to a valid XML file creation.

They have in common several functionalities, including internal validation procedure and the XML creation procedure, despite the data reporting schema of the tools is completely different;

- The **Excel tool FLAT** is used to report contaminants and additives;
- and
- The **Excel tool WITH METHODS** can be used for reporting screening results, mainly in the residues of pesticides and of veterinary medicinal products domains;

- The **Excel simplified tool** (not considered in this presentation) contains the minimum reporting requirements to achieve a valid file transmission.

It is primarily aimed to data providers with little experience of compiling and sending data to EFSA.

Excel reporting tools

STRUCTURE

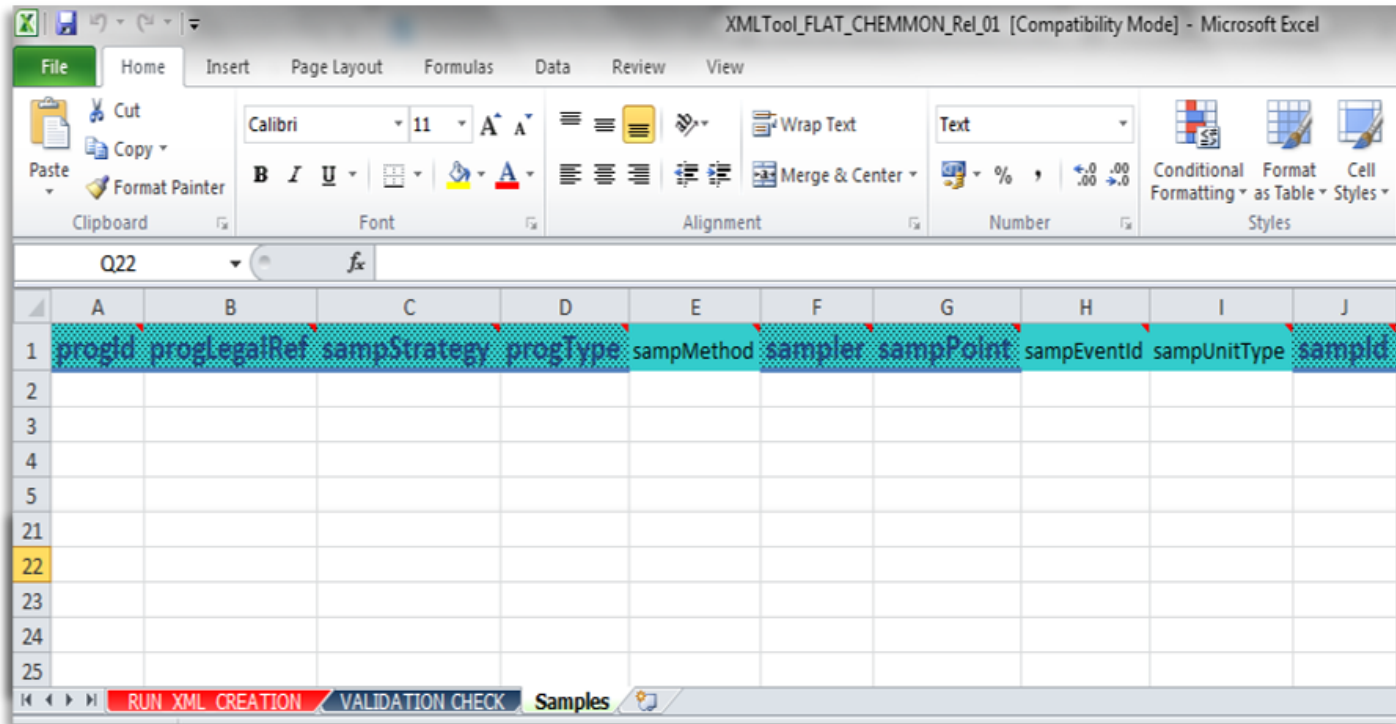
- The **Excel tool FLAT** is conceived for a simpler usage with a straightforward structure of the input: each record includes samples attributes, laboratory information and analytical results on the same line of a database that has the flat structure of an ordinary Excel table;
- The **Excel tool WITH METHODS** has the input information related to samples, analytical methods and positive detections saved in three separated types of worksheets;

Excel reporting tools

STRUCTURE

- The excel reporting tools do not contain all the data elements of the SSD2 data model but only those mandatory, dependent mandatory and relevant for chemical monitoring data collection;
 - This SSD2 data elements are listed in the [“Chemical monitoring reporting guidance: 2021 data collection”](#);
- The content of some data elements must be in accordance to specific catalogues of controlled terminologies, while for others it’s free of control.

The **FLAT** reporting tool consists of three worksheets:

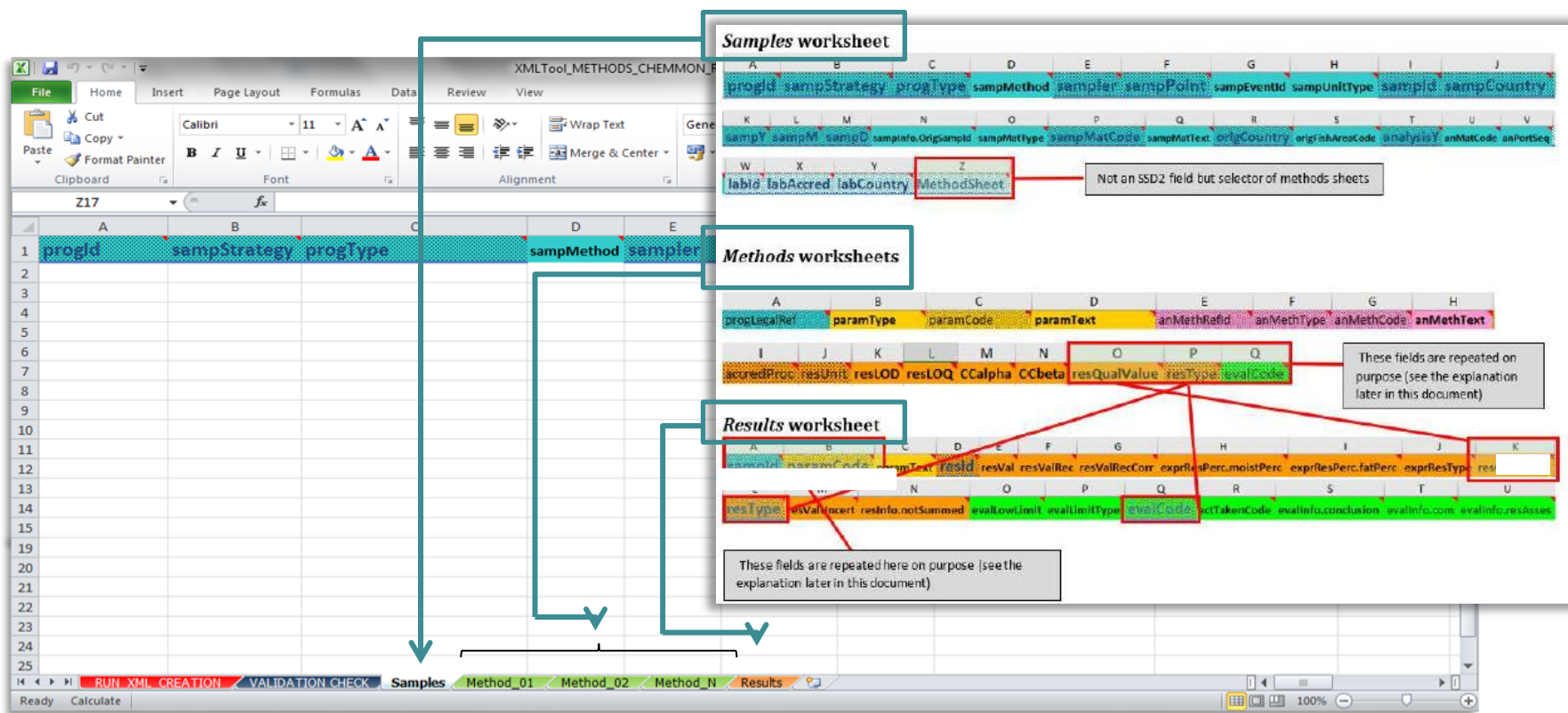


- **Samples:** the worksheet compiled with all the data to be converted in XML format;

- **VALIDATION CHECK:** a console for running the validation procedure that checks if the controlled terminology catalogues are correctly applied in the Samples worksheet and returns a list of cells that failed the control;
- **RUN_XML_CREATION:** a console to run the code that automatically generates the XML file and returns the feedback on the files created.

Excel tool WITH METHODS - Worksheets

The SSD2 data elements are divided in three groups and included as columns over three different main types of worksheets.



Samples worksheet

progid	sampStrategy	progType	sampMethod	sampier	sampPoint	sampEventId	sampUnitType	sampId	sampCountry

labId labAccred labCountry MethodSheet (Not an SSD2 field but selector of methods sheets)

Methods worksheets

proglocalRef	paramType	paramCode	paramText	anMethRefId	anMethType	anMethCode	anMethText

resQualValue resType evalCode (These fields are repeated on purpose (see the explanation later in this document))

Results worksheet

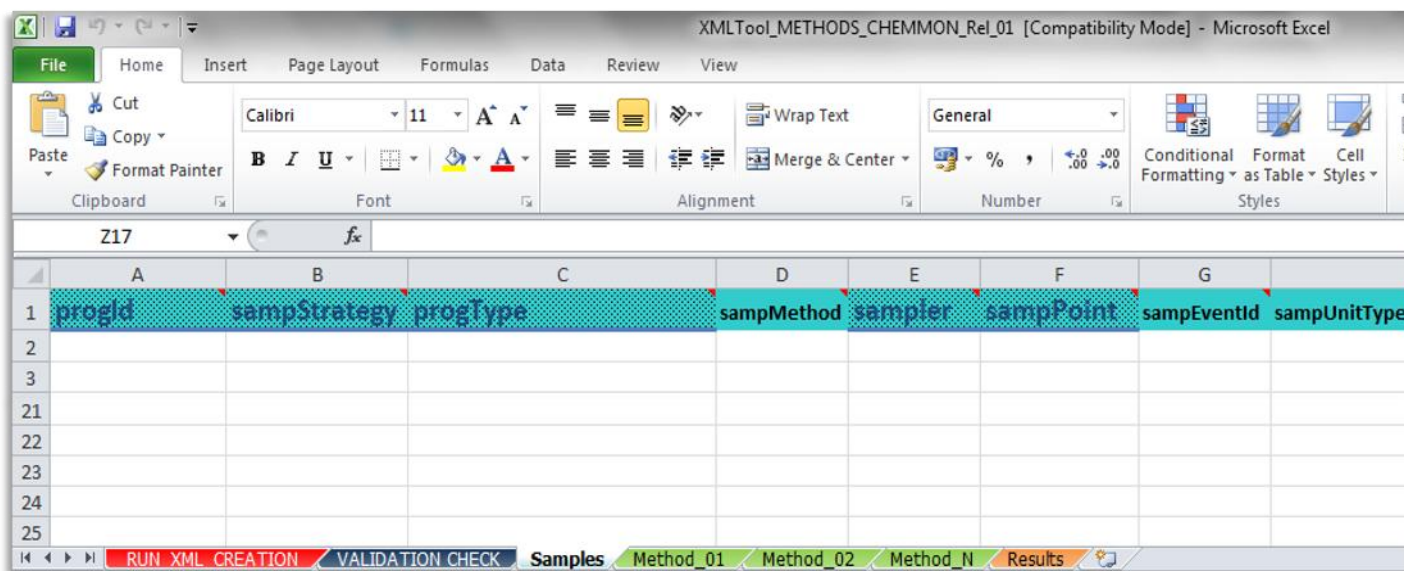
resType	resVal	resValRec	resValRecCorr	exprResPerc.moistPerc	exprResPerc.fatPerc	exprResType	res

evalCode (These fields are repeated here on purpose (see the explanation later in this document))

Worksheet tabs: RUN_XML_CREATION, VALIDATION CHECK, Samples, Method_01, Method_02, Method_N, Results

Excel tool WITH METHODS - Worksheets

The **WITH METHODS** reporting tool consists of five different types of worksheets:



- **Samples:** working area for reporting information at sample level. All the samples reported are listed and described once in this worksheet;

Excel tool WITH METHODS - Worksheets

- **Methods:** working area for reporting the descriptors of a single laboratory method. This type of worksheet will be replicated as many times as the laboratory methods reported.
- **Results:** working area for reporting positive detections. Each positive result reported in this table has to be linked to a sample and to a specific substance reported in one of the laboratory methods sheets.

Excel tool WITH METHODS - Worksheets

- **VALIDATION CHECK:** a console for running the validation procedure that checks if the controlled terminology catalogues are correctly applied in the Samples worksheet and returns a list of cells that failed the control.
- **RUN_XML_CREATION:** a console to run the code that automatically generates the XML file and returns the feedback on the files created.

Excel reporting tools

STRUCTURE

- The data reporting schema of the tools and the order of the data elements follows the order of the [“Chemical monitoring reporting guidance”](#) for an easier reference;
- Colours, font and special labels in the headers are meant to provide additional support to the user when compiling the data:

Excel reporting tools

STRUCTURE

- Background colours are meant to evidence the SSD2 section to which each field belongs.

Section_code	Section	Color
A	Local organization	(Not included)
B	Sampling programme	
C	Sampling event	
D	Sample taken	
E	Matrix sampled	
F	Sample analysed	
G	Matrix analysed	
H	Sample analysed portion	
I	Isolate	(Not included)
J	Laboratory	
K	Parameter	
L	Analytical Method	
M	Result	
N	Evaluation	

Excel reporting tools

STRUCTURE

- Darker background colours and larger/bold font of the header names are meant to identify the fields that are mandatory or dependent mandatory.

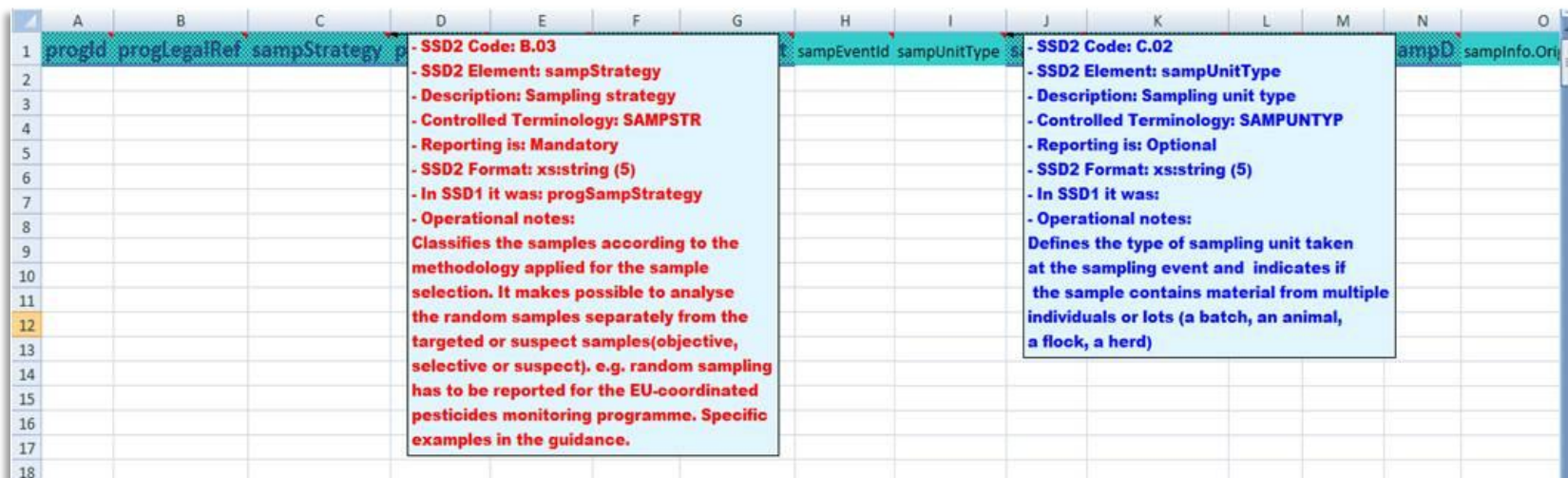
progType	sampMethod	sampler	sampPoint	sampEventId	sampUnitType	sampId
Mandatory	Optional	Mandatory	Mandatory	Optional	Optional	Mandatory

- The Mandatory/Optional status of each field is also reported in the special labels associated to each column header (specified in line 5).

sampMatCode				
	- SSD2 Code: E.02 - SSD2 Element: sampMatCode - Description: Coded description of the matrix of the - Controlled Terminology: MTX - Reporting is: Mandatory - SSD2 Format: CompoundType - In SSD1 it was: EFSAProdCode, prodProdMeth, prod - Operational notes:			

- Chemical monitoring data to be reported in XML can be easily prepared in the Excel tools;
- All the SSD2 mandatory fields and most relevant optional fields are already included in the tools;
- The reporting hierarchies of all the SSD2 controlled terminology catalogues are embedded in the reporting tools;

- Descriptive comments are present on each header of the Excel tools spreadsheets;



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
progId	progLegalRef	sampStrategy	- SSD2 Code: B.03 - SSD2 Element: sampStrategy - Description: Sampling strategy - Controlled Terminology: SAMPSTR - Reporting is: Mandatory - SSD2 Format: xs:string (5) - In SSD1 it was: progSampStrategy - Operational notes: Classifies the samples according to the methodology applied for the sample selection. It makes possible to analyse the random samples separately from the targeted or suspect samples(objective, selective or suspect). e.g. random sampling has to be reported for the EU-coordinated pesticides monitoring programme. Specific examples in the guidance.		sampEventId	sampUnitType	- SSD2 Code: C.02 - SSD2 Element: sampUnitType - Description: Sampling unit type - Controlled Terminology: SAMPUNTYP - Reporting is: Optional - SSD2 Format: xs:string (5) - In SSD1 it was: - Operational notes: Defines the type of sampling unit taken at the sampling event and indicates if the sample contains material from multiple individuals or lots (a batch, an animal, a flock, a herd)	sampD	sampInfo.Orig								

MAIN FUNCTIONALITIES

- The valid reportable SSD2 codes can be selected from validation drop-down lists that are present in every cell related to SSD2 variables with a controlled terminology.

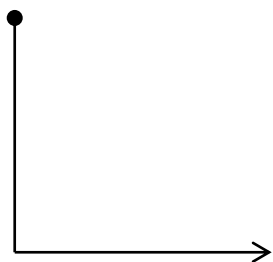
The screenshot shows an Excel spreadsheet with columns A through J. The header row (row 1) is highlighted in blue and contains the following labels: A: progId, B: progLegalRef, C: sampStrategy, D: progType, E: sampMethod, F: sampler, G: sampPoint, H: sampEventId, I: sampUnitType, J: sampId. Rows 2 through 9 are visible. In row 2, the cells for columns B, D, and I have their respective drop-down menus open, displaying a list of valid SSD2 codes. The list for column B includes: NO17A, NO18A, NO23A, NO27A, NO28A, N112A, N129A, N139A. The list for column D includes: K005A, K009A, K010A, K012A, K013A, K014A, K018A, K019A. The list for column I includes: G198A, G199A, G200A, G201A, G202A, G203A, G204A, G243A.

	A	B	C	D	E	F	G	H	I	J
1	progId	progLegalRef	sampStrategy	progType	sampMethod	sampler	sampPoint	sampEventId	sampUnitType	sampId
2										
3		NO17A		K005A					G198A	
4		NO18A		K009A					G199A	
5		NO23A		K010A					G200A	
6		NO27A		K012A					G201A	
7		NO28A		K013A					G202A	
8		N112A		K014A					G203A	
9		N129A		K018A					G204A	
10		N139A		K019A					G243A	

Each drop-down list is performing the double role of guided input for the user and validation rule.

MAIN FUNCTIONALITIES

- Each cell can also be populated entering the codes manually or by copying-pasting codes from another worksheet, with the possibility to run the catalogues validation afterwards;



The best option and the one that is in use (and that will be most used) for the majority of the Portuguese data.

Excel reporting tools

MAIN FUNCTIONALITIES

- The "*paramCode*" can be retrieved by selecting the names* of substances from a specific dropdown list;

AB	AC
paramCode	paramText
RF-00000150-CHE	Cadmium (Cd)
	b-ZELSulfs (beta zearalenol sulfate)
	Cabergoline
	Cadaverine
	Cadmium (Cd)
	Cadusafos
	Cafenstrole
	Calcium (Ca)
	Calcium 5'-ribonucleotides



AB	AC
paramCode	paramText
RF-00000150-CHE	Cadmium (Cd)

* The option to select the analysed chemicals ("*paramCode*") by name and not by code was a request of the users.

MAIN FUNCTIONALITIES

An exception was introduced in the Tools using the "*paramText*" field as a space to list chemical names that, once selected, are converted in codes in the "*paramCode*" cell.

This also works in the opposite way - selecting a "*paramCode*", the tool automatically returns the name in the "*paramText*" column);

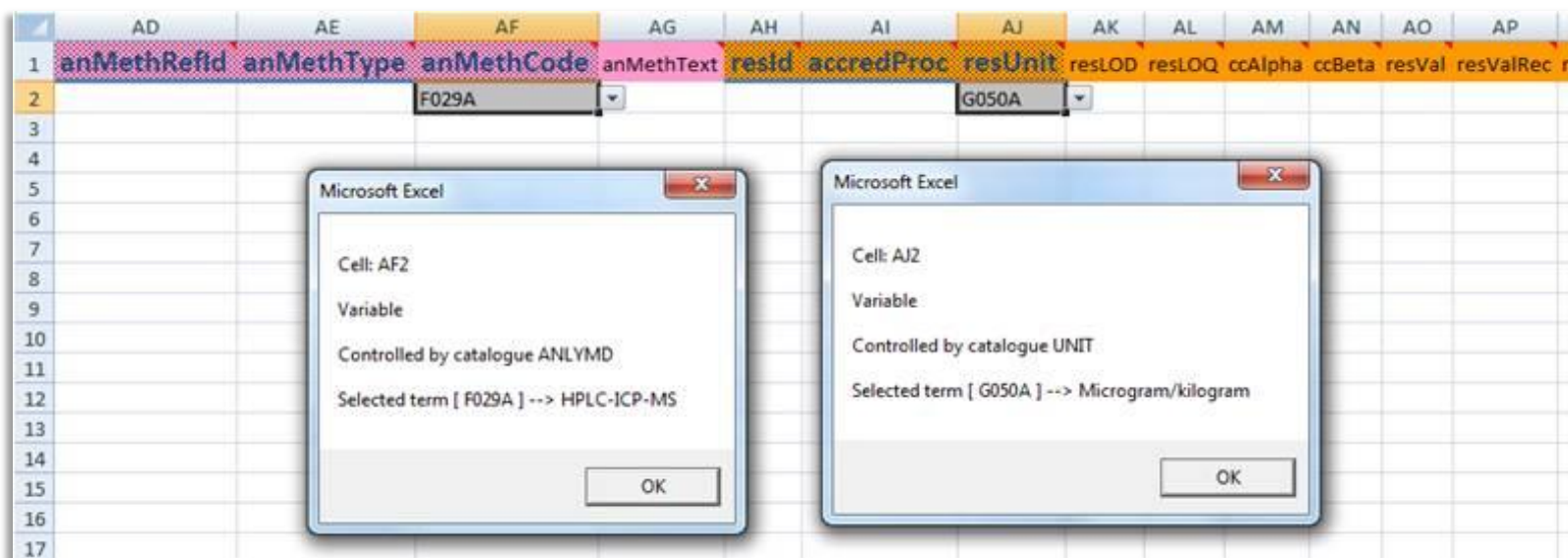
AB	AC
paramCode	paramText
RF-00000174-CHE	
RF-00000173-TOX	
RF-00000173-VET	
RF-00000174-ADD	
RF-00000174-CHE	
RF-00000174-ORG	
RF-00000174-TOX	
RF-00000174-VET	
RF-00000175-ADD	



AB	AC
paramCode	paramText
RF-00000174-CHE	Lead (Pb)

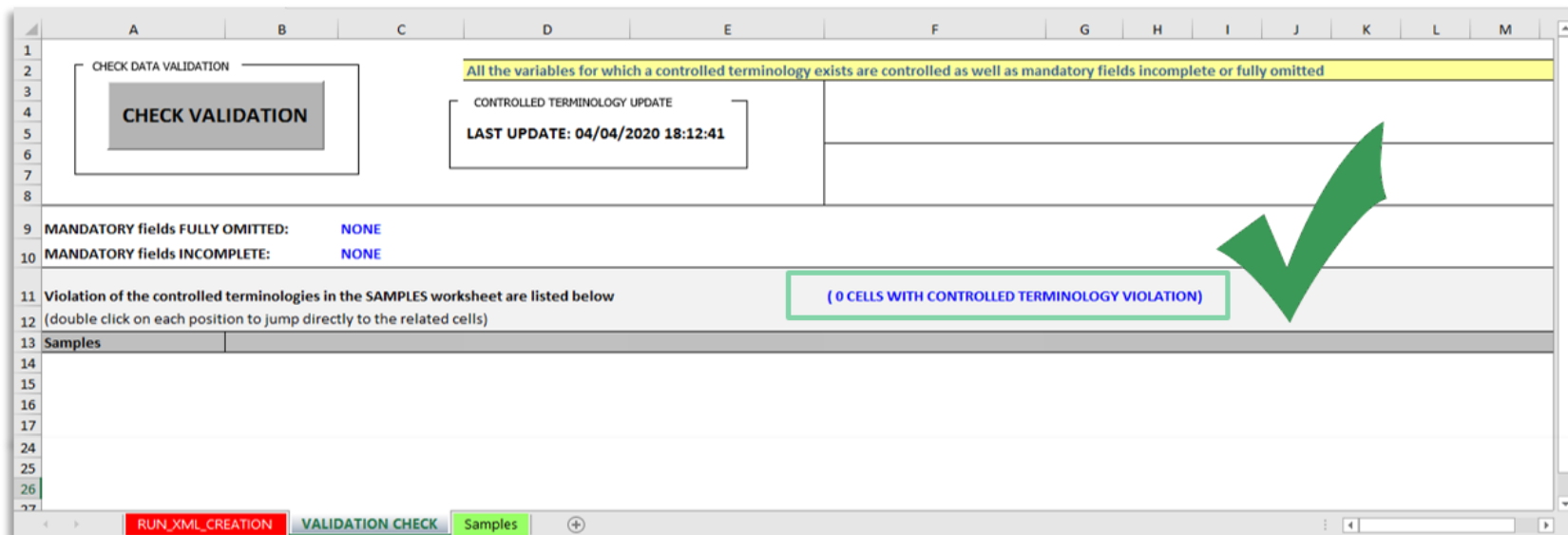
MAIN FUNCTIONALITIES

- The tools include a helpful functionality for decoding codes already entered in the cells. A double click on the cells with controlled terminology returns the corresponding catalogue description of the code in that cell.



MAIN FUNCTIONALITIES

- It is strongly recommended to run the validation check procedure frequently in order to have the controlled terminology drop-down always updated and to identify possible mistakes during the data compilation, in particular before running the XML creation procedure.



1

2 CHECK DATA VALIDATION

3

4 CHECK VALIDATION

5

6

7

8

9 MANDATORY fields FULLY OMITTED: NONE

10 MANDATORY fields INCOMPLETE: NONE

11 Violation of the controlled terminologies in the SAMPLES worksheet are listed below (0 CELLS WITH CONTROLLED TERMINOLOGY VIOLATION)

12 (double click on each position to jump directly to the related cells)

13 Samples

14

15

16

17

24

25

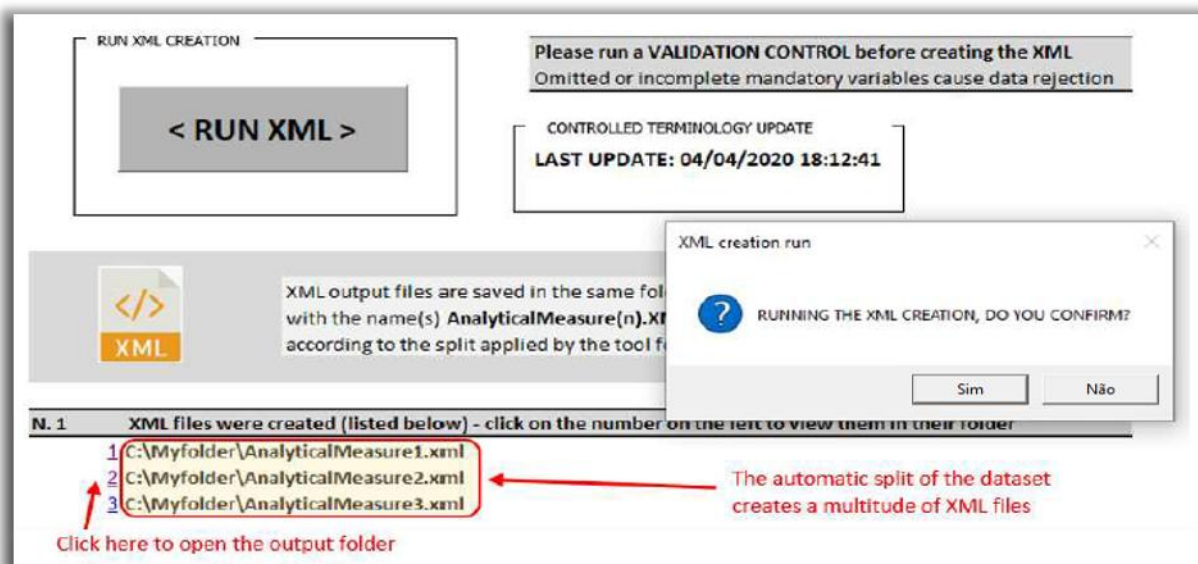
26

27

RUN_XML_CREATION VALIDATION CHECK Samples

MAIN FUNCTIONALITIES

- The last step to be performed with the reporting tools is the export of the data compiled in the XML files.



The tools automatically split the dataset inserted in the workbooks and creates XML files of suitable size (max 20.000 records per file) for the upload to the DCF.

Excel reporting tools

MAIN FUNCTIONALITIES

- Example of subset of data elements from a XML file generated with the **SSD2 Excel Tool FLAT**:



```
<?xml version="1.0" encoding="UTF-8"?>
- <dataset xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <result>
    - <progId>
      <![CDATA[PTxPT]>
    </progId>
    <progLegalRef>N247A</progLegalRef>
    <sampStrategy>ST20A</sampStrategy>
    <progType>K005A</progType>
    <sampler>CX02A</sampler>
    <sampPoint>E300A</sampPoint>
    <sampUnitType>G199A</sampUnitType>
  - <sampId>
    <![CDATA[2021010002]]>
  </sampId>
  <sampCountry>PT</sampCountry>
  <sampY>2020</sampY>
  <sampM>9</sampM>
  <sampD>30</sampD>
  <sampMatType>S000A</sampMatType>
  <sampMatCode>A02GM#source=A0BXM$part=A0EME</sampMatCode>
  - <sampMatText>
    <![CDATA[Aquicultura - Moluscos (PNCR)#Músculo]]>
  </sampMatText>
  <origCountry>PT</origCountry>
  <analysisY>2020</analysisY>
  - <labId>
    <![CDATA[IPMA]]>
  </labId>
  <labAccred>L001A</labAccred>
  <labCountry>PT</labCountry>
  <paramType>P005A</paramType>
  <paramCode>RF-00000150-CHE</paramCode>
  <paramText>Cadmium (Cd)</paramText>
  - <anMethRefId>
    <![CDATA[EN 14084:2003]]>
  </anMethRefId>
  <anMethType>AT08A</anMethType>
  <anMethCode>F052A</anMethCode>
  <anMethText>AAS</anMethText>
```

Questions & Answers





The **Excel reporting tools** allow Member States to create files in line with the SSD2 (Standard Sample Description 2) data model and to generate ...

- XHTML files?
- HTML files?
- XML files?

...with the correct structure for harmonised data transmission to EFSA via the DCF.



The **Excel reporting tools** allow Member States to create files in line with the SSD2 (Standard Sample Description 2) data model and to generate ...

- XHTML files?

- HTML files?

- XML files;



...with the correct structure for harmonised data transmission to EFSA via the DCF.



The **Excel reporting tools** contains

- the data elements of the SSD2 data model that are mandatory and dependent mandatory?
- the data elements of the SSD2 data model that are mandatory, dependent mandatory and relevant for chemical monitoring data collection?
- all the data elements of the SSD2 data model?



The Excel reporting tools contains

- the data elements of the SSD2 data model that are mandatory and dependent mandatory?
- the data elements of the SSD2 data model that are mandatory, dependent mandatory and relevant for chemical monitoring data collection; ✓
- all the data elements of the SSD2 data model?



In both Excel reporting tools (FLAT & WITH METHODS) the valid reportable SSD2 codes can be selected from validation drop-down lists that are present

- in every cell related to SSD2 variables that are mandatory?
- in every cell related to SSD2 variables that are mandatory and dependent mandatory?
- in every cell related to SSD2 variables with a controlled terminology?



In both Excel reporting tools (FLAT & WITH METHODS) the valid reportable SSD2 codes can be selected from validation drop-down lists that are present

- in every cell related to SSD2 variables that are mandatory?
- in every cell related to SSD2 variables that are mandatory and dependent mandatory?
- in every cell related to SSD2 variables with a controlled terminology;



**Thank you for your
attention!**