



# OPEN DATA and MATRIX

**Stakeholder Forum  
30 May 2017**

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# EFSA STRATEGY 2020

EFSA management board DEC 2015 <http://www.efsa.europa.eu/sites/default/files/mb151001-d2.pdf>



The five strategic objectives up to 2020:

- 1. Prioritise public engagement in the process of scientific assessment
  - Ensure that mandates capture societal needs
  - **Make documentation on information gathering and the evaluation process available**
  - Foster an engaged scientific debate
  - Ensure **clarity in the communication** of findings
- 2. Widen EFSA's evidence base and maximise access to its data
  - Adopt an **Open Data approach**
  - Migrate towards **structured scientific data**
- 3. Build the EU's scientific assessment capacity and knowledge community
- 4. Prepare for future risk assessment challenges
- 5. Create an environment and culture that reflects EFSA's values

# DATA USED BY EFSA



Member States



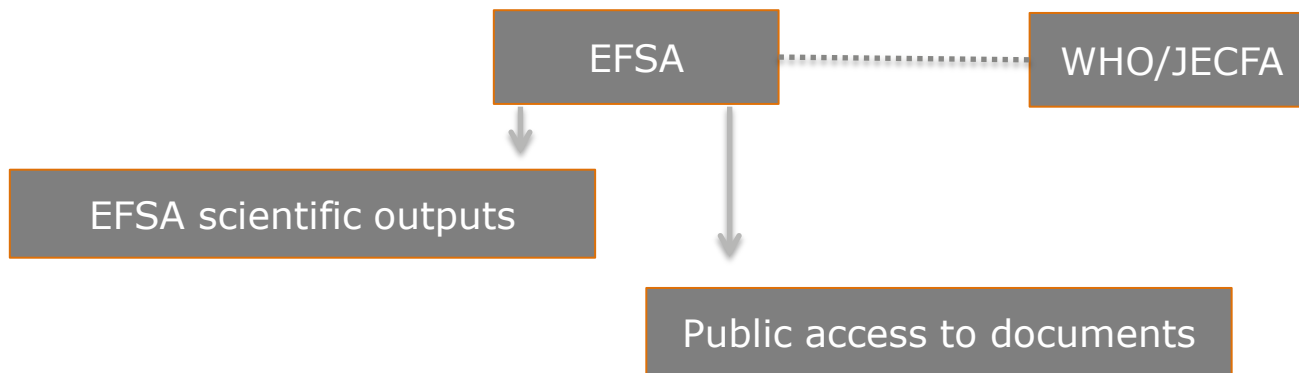
Industry



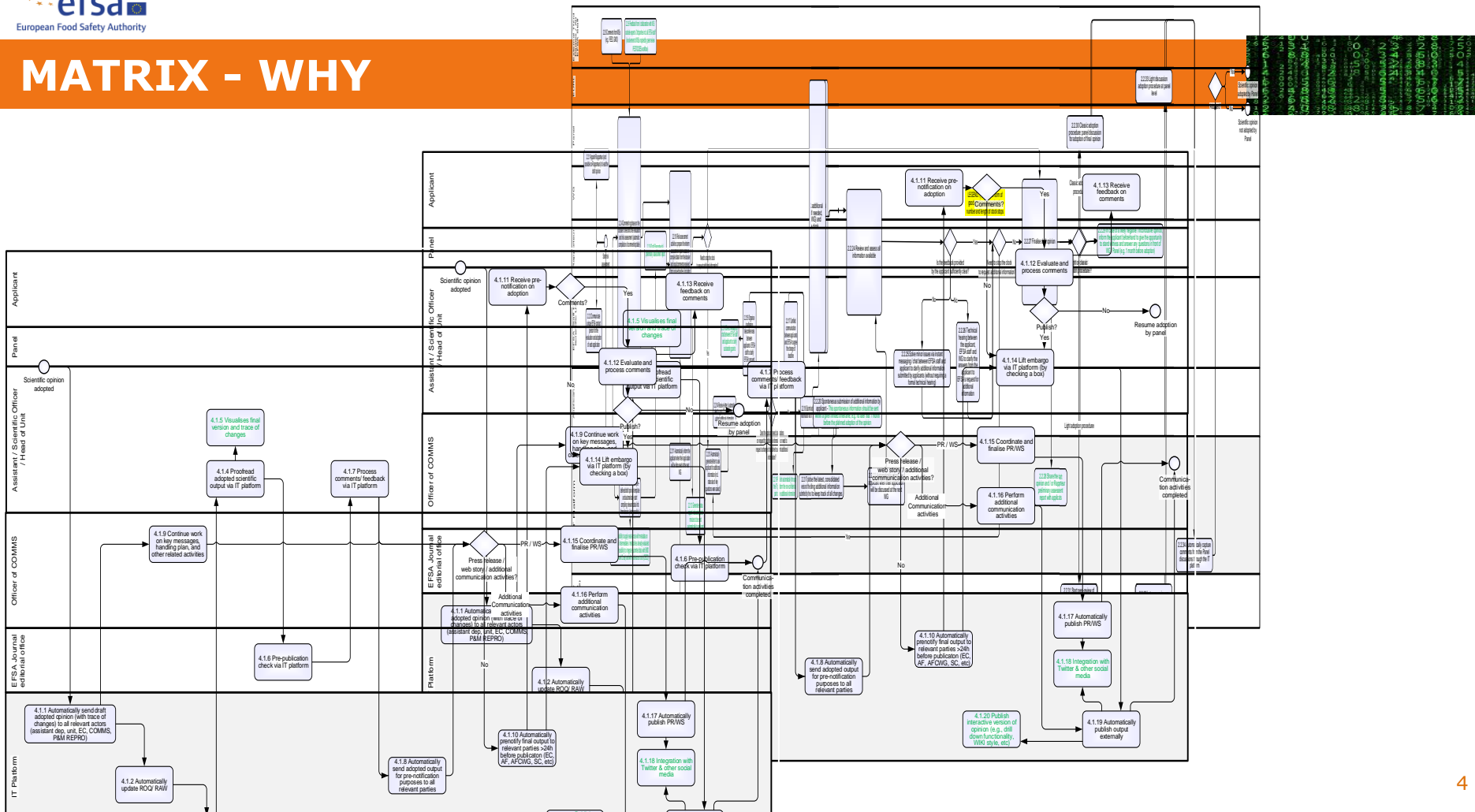
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EFSA self mandate



# MATRIX - WHY



# MATRIX - OBJECTIVES



The MATRIX project is a transformational project, which will allow EFSA to transit from a predominantly CD ROM-based to an electronic-based submission

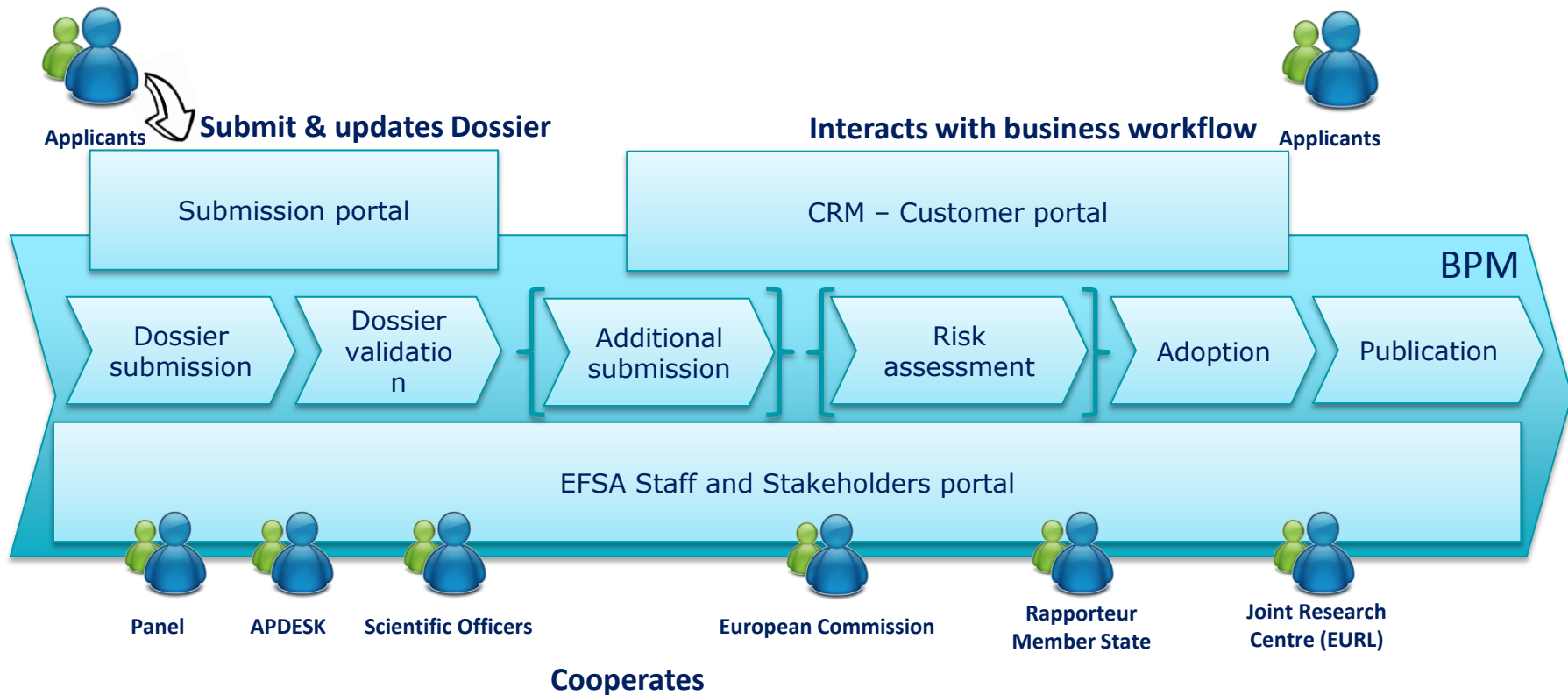


The project aims to provide

- Full electronic submission of dossiers
  - Structured dossiers
  - Easy file transfer
  - Easier access to data
  - Support databases (e.g. EFSA Datawarehouse)
  - Identify non-confidential parts of the dossier
- Automated administrative workflows
  - Communication tools



# MATRIX - VISION



# MATRIX - ORGANISATION



- WP 1 on the dossier structure
- WP 2 on workflows
- WP 3 on file transfer
- WP 4 on communication
- DiG1 on technical aspects
  
- WP 8 on confidentiality
- DiG2 on confidentiality



# MATRIX - WP1 SCHEMATIC OF A DOSSIER

## General principles

- Migrate towards structured scientific data
- To make use where possible of existing standards
- To ensure the granularity and level of detail of the data collected supports the scientific risk assessment process
- To use data structures which can support automation
- Identification of Confidential information



# MATRIX - WP1 SCHEMATIC OF A DOSSIER

## Structured Dossier

Administrative data

Company

Product

Table of contents

Identity, Characterisation and Conditions of Use

Identity of the substance

Analysis of impurities



Study report



OECD 23-1



SSD2 Modified

Safety

Safety for the consumer

Acute toxicity



Study report



OECD 60



SSD2 Modified

GHSTS XML

OHT + SSD2 XML

# MATRIX – WP4 COMMUNICATION AND PORTAL



## General principles

- Automated as far as possible
- Reduce e-mails
- ALL communications (applicants, EFSA, MS, EC, JRC) in MATRIX platform
- All steps in the workflows requiring communication are identified and described
- Notification + link to official letters
- Portal design – minimum for the pilot phase

## DISCUSSION GROUP 1 – OBJECTIVES

The Discussion Group 1 (DIG1) is a **consultative body**

The objectives

- Foster engagement
- Share experience/best practices
- Enhance clarity and usability of the electronic platform to be developed
- Discuss and consult on WP1 , WP2, WP3, WP4
- Collect feedback
- Draw lessons for future engagement with stakeholders



# DATA USED BY EFSA



Member States



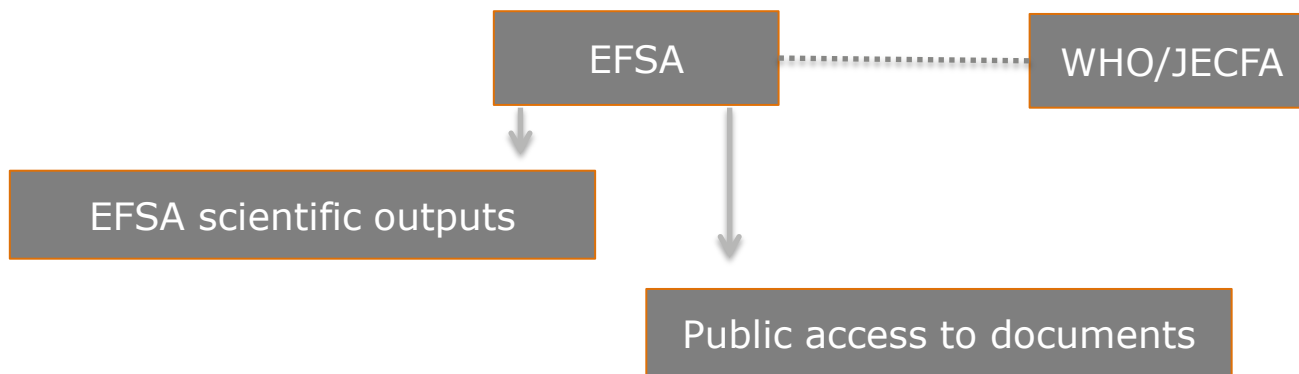
Industry



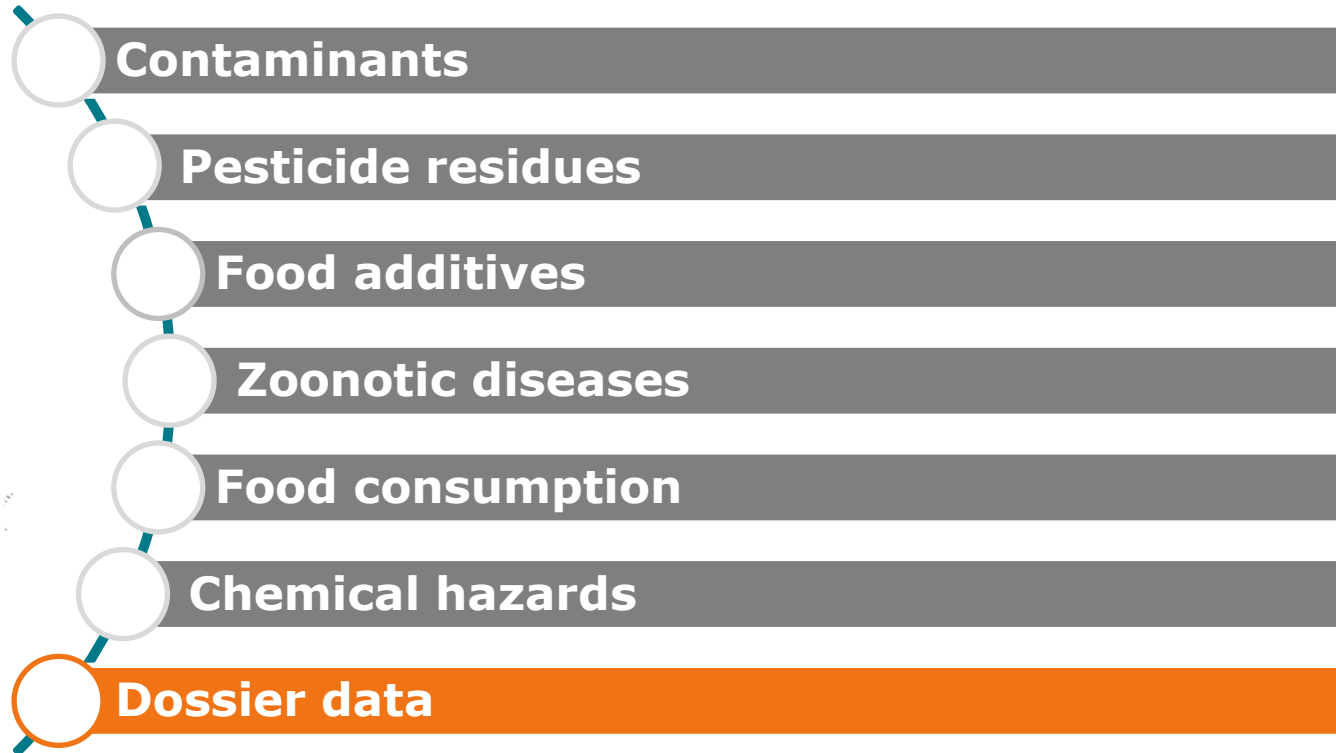
Academia



EFSA self mandate



# TOWARDS RISK ASSESSMENT HUB



# TOWARDS OPEN DATA



- Data that can be freely used and re-used
- Mechanisms to improve transparency
- Added value of re-use of public sector data to boost European research and innovation

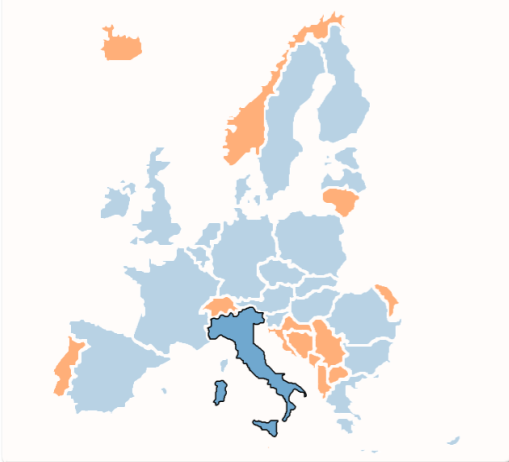
## Achievements

- Scientific data Warehouse
- Circle of Trust
- Collaboration with open data platforms

# DATA WAREHOUSE – FOOD CONSUMPTION DATABASE



## Number of survey per country



## Survey Details

### Number of subjects per survey Italy

Year	Pop Class	Total	Infants	Toddlers	Other	Adolescents	Adults	Elderly	Very elderly
	Survey	Nr Subjects	Nr Subjects	Nr Subjects	Nr Subjects	Nr Subjects	Nr Subjects	Nr Subjects	Nr Subjects
2005	INRAN_SCAI	3,323	16	36	193	247	2,313	290	228

Survey details (1/2)

Survey details (2/2)

Survey age class

Country Italy

Survey Italian National Food Consumption Survey  
INRAN-SCAI 2005-06

Institution providing the data National Institute for Research on Food and Nutrition (INRAN)

FFQ or FPQ Not Available

Interview administration Not Available

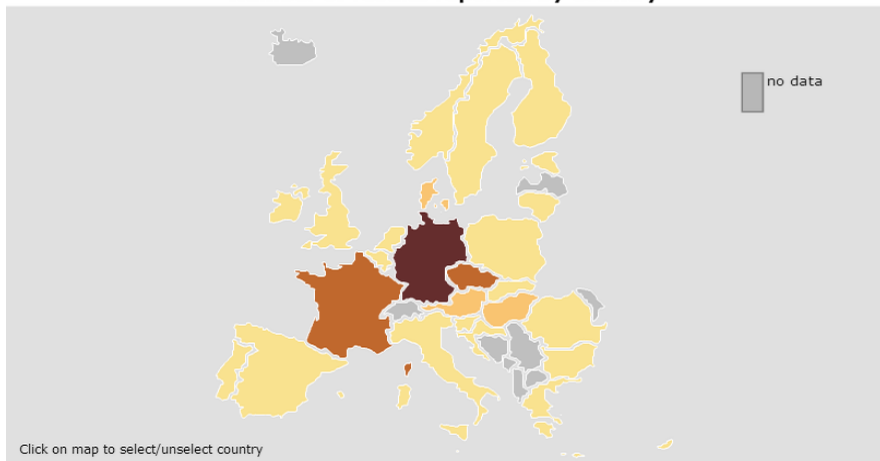
# DATA WAREHOUSE – CHEMICAL CONTAMINANTS



## Chemical Occurrence - Data Collection Summary Sampling Year 2013

M Population

Number of results reported by Country

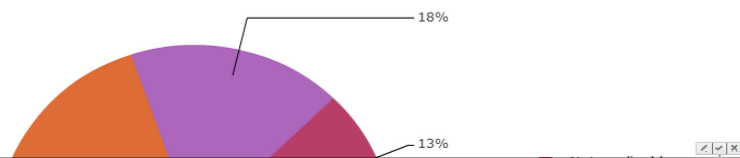


Number of results reported by Country

Country	N Results	N Results by Population	N Samples
<b>Total</b>	<b>528,881</b>	<b>10,162</b>	<b>112,797</b>
Germany	165,921	3,188	36,843
Czech Republic	86,478	1,662	14,978
France	80,755	1,552	9,704
Denmark	22,631	435	2,158
Hungary	19,005	365	5,498
Austria	18,722	360	3,948
Slovakia	15,164	291	5,062
Norway	13,685	262	910
Spain	12,258	236	4,252
Croatia	10,125	195	5,850
Ireland	9,500	184	2,092
Slovenia	8,345	160	2,527
Romania	8,240	158	5,109
Poland	8,185	157	320
Netherlands	8,145	156	3,410
Bulgaria	7,821	150	941
United Kingdom	7,588	146	1,527
Portugal	5,116	98	1,136
Finland	4,191	81	1,293
Lithuania	3,998	75	1,221
Cyprus	3,475	67	783
Sweden	3,278	62	212
Italy	1,962	38	947

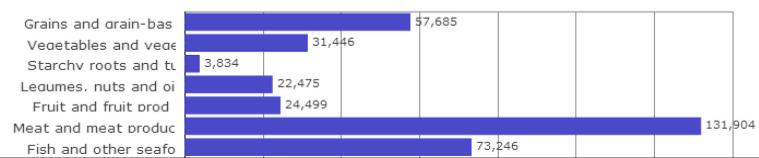
Dia

Number of results reported by Substance



Food Feed

Number of results reported by Food group





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September 30, 2016

Software **Open Access**

## Campylobacter in broilers model on control options (CAMO)

Vose, David; Mintiens, Koen; Van Hauwermeiren, Michael; Raman, Daan; Alban, Lis; Sandberg, Marianne; Vaz, Yolanda; Frequeza, Maria João; Leontides, Leonidas; Kostoulas, Polychronis


The model produced evaluates quantitatively the effect of interventions on the risk of campylobacteriosis from broiler meat in EU Member States (MS).

The model uses many of the same principles of previous food safety risk assessment models, but takes a different mathematical approach to achieve its results. This provides the ability to investigate the effect of different combinations of interventions extremely quickly. It characterizes the variability of the level of contamination by the normalized central moments (mean, variance, skewness and kurtosis) of the log<sub>10</sub> numbers and evaluates the effects of processing, interventions etc. by combining the raw moments of variables in the model using analytical mathematical equations. The model is normalized to current observations throughout the farm-to-fork continuum. The output is the change in the human incidence rate of campylobacteriosis, rather than the actual incidence rates before and after variations in the interventions applied. The advantage of this approach is that the model's outputs are less sensitive to any assumptions or statistical uncertainty in parameter estimates, leading to more robust quantitative results.

Microsoft Excel with the ModelRisk 3.0 add-in from Vose Software

Preview

Page: 1 of 79 Automatic Zoom



**VOSE**  
CONSULTING  
CONSULTING • SOFTWARE • TRAINING

A quantitative microbiological risk

### Publication date:

September 30, 2016

### DOI:

DOI: 10.5281/zenodo.247339

### Keyword(s):

Campylobacter QMRA microbiological risk assessment  
broiler meat food chain empirical model  
deterministic models sensitivity analysis

### Related identifiers:

Cited by:  
10.2903/sp.efsa.2011.EN-132,  
10.2903/j.efsa.2011.2105

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### Cite as

Vose, David, Mintiens, Koen, Van Hauwermeiren, Michael, Raman, Daan, Alban, Lis, Sandberg, Marianne, ... Kostoulas, Polychronis. (2016). Campylobacter in broilers model on control options (CAMO) [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.247339>

Start typing a citation style...

### Export

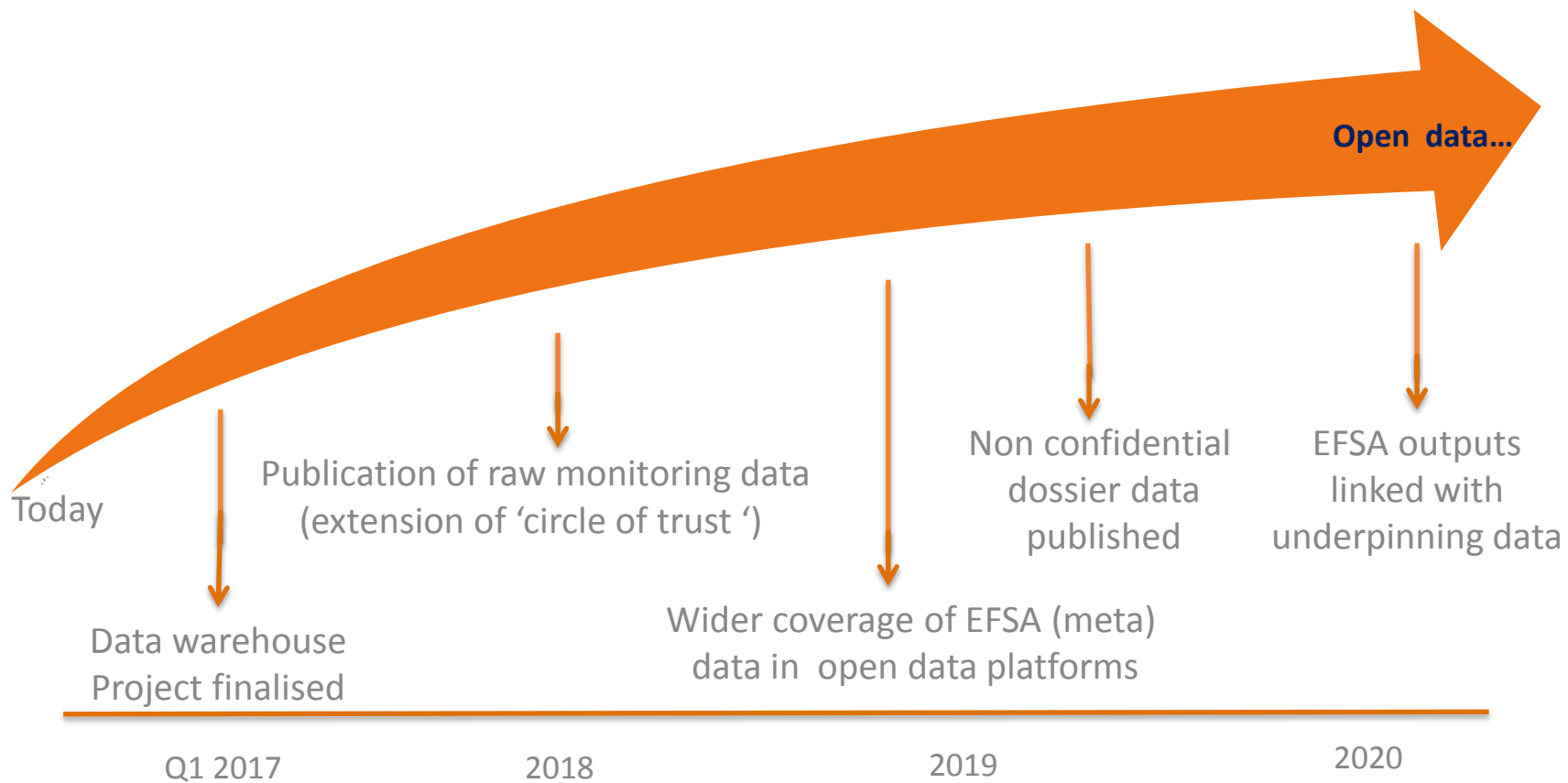
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MARCXML [Mendeley](#)

Findable

Reusable

Interoperable

# KEY NEXT STEPS TOWARDS OPEN DATA





THANK YOU for  
your attention

