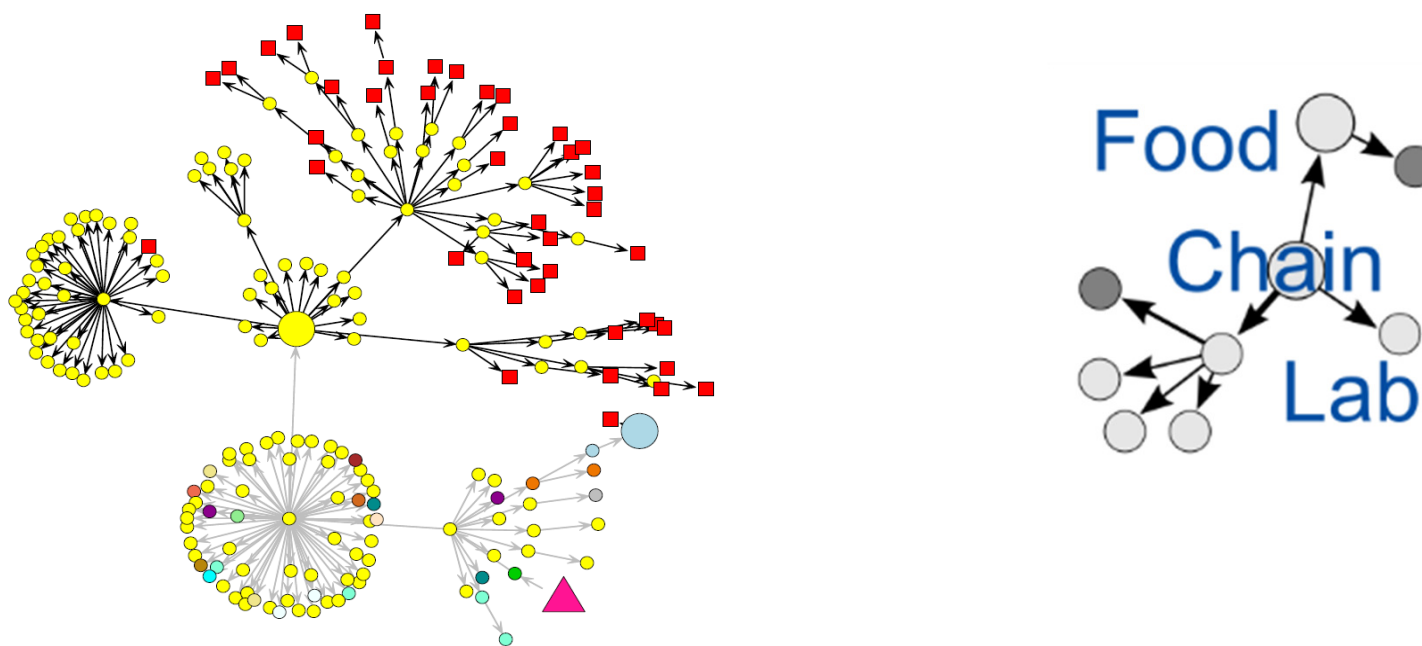


FoodChain-Lab

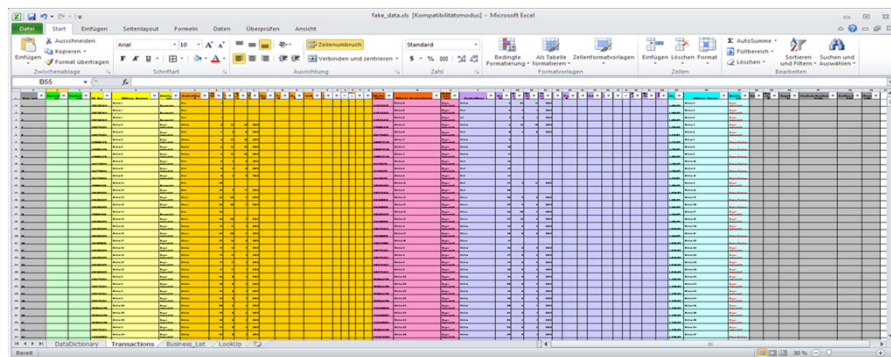
A new browser-based data collection tool for local authorities – rationale, live demo and outlook



**Armin Weiser, Marion Gottschald, Alexander Falenski,
Marco Rügen, Dominic Tölle, Christian Gerlach,
Tobias Zenkner, Eva Scharfenberg, Olaf Mosbach-
Schulz**

Data gathering – Development of a new “simple” template

old:



“one step back-one step forward”-
principle of REGULATION (EC) No
178/2002, Article 18

->

Endless supply chains with arbitrary
complexity realizable

new:

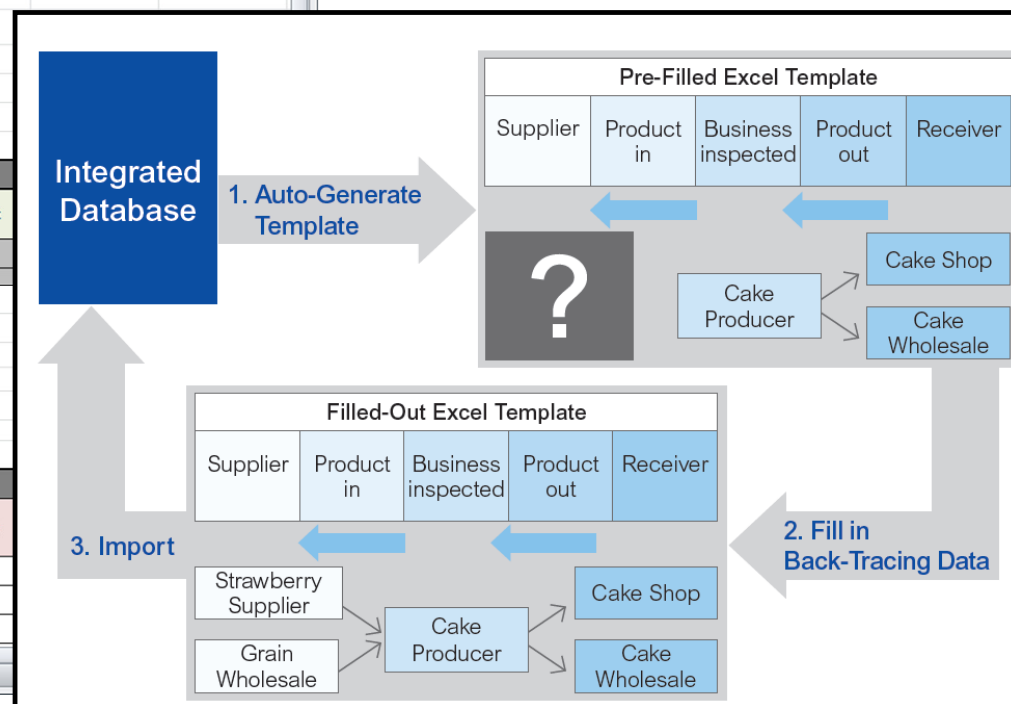
Reporter Information		
Reporting Officer	Reporting Date	Reporting Remark

Station in Focus:		
Station	Caterer	
3001	Caterer 01	

Products Out										
Product Name	Lot Number	Delivery Date Departure			Delivery Date Arrival			Unit weight/vol./pck.		Recipient
		Day	Month	Year	Day	Month	Year	Quantity	Type / Unit	
Menü 1	M01	3	9	2014	3	9	2014	62	Portionen	9012
Menü 2	M02	3	9	2014	3	9	2014	101	Portionen	9008

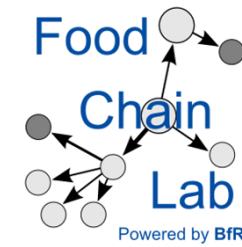
Lot Information		
Lot Number of "Product Out"	Lot size	
	Quantity	Type / Unit
M01	900	Portionen
M02	900	Portionen

Ingredients for Lot(s)										
Ingredient Name	Lot Number of Ingredient	Delivery Date Departure			Delivery Date Arrival (if departure unknown)			Unit weight/vol./pck.		Supplier
		Day	Month	Year	Day	Month	Year	Quantity	Type / Unit	



Online Validation: <https://foodrisklabs.bfr.bund.de/templatevalidator/>

The Tracing (Web-) Portal



outgoing goods goods production incoming goods

Recipient **Product detail** Current dataset: **Commodity relations**

Product name: Mehl Product amount: 10000

Trade name: Vollkornmehl Amount unit: Stück (ID: null)

Article number: 47200 Number of trading units: Number of trading units:

EAN code: EAN code Trading unit name: null (ID: null)

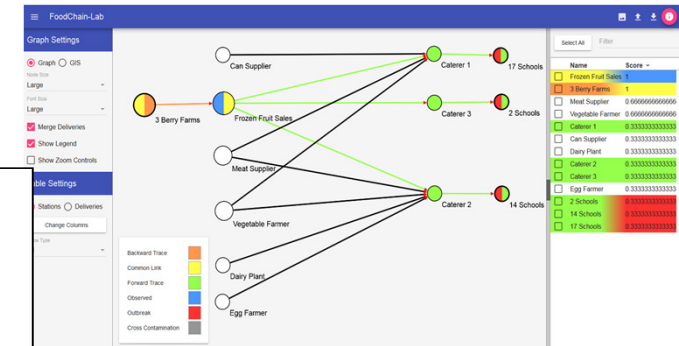
Lot: ZM170922 BBD: BBD (Format TT.MM.JJJJ): null.null.null

Comment: Comment:



Data Collection
RASFF
Local
Bulk

**Data Analysis
& Visualization**



Login

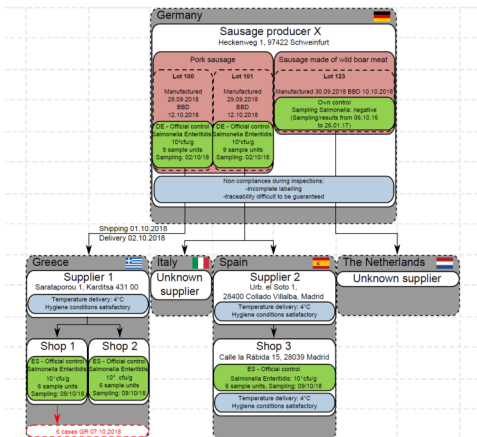
Email *
armin.weiser@gmail.com

Password *

Login Register Password forgotten?

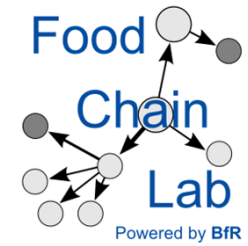
Reporting

**Sync with
Desktop App**



<https://fcl-portal-dev.bfr.berlin/>

The Data Collection Piece



outgoing goods

goods production

incoming goods

Supplier name		Product detail	
Product name:	Flour	Product amount:	12
Trade name:	Flour 876	Amount unit:	Paletten
Article number:	1-12	Number of trading units:	100
EAN code:	342524234534545	Trading unit name:	kg
Lot:	m123	BBD:	21.01.2019 
Comment:	Comment		

Data Collection
RASFF
Local
Bulk



BVL

EFSA

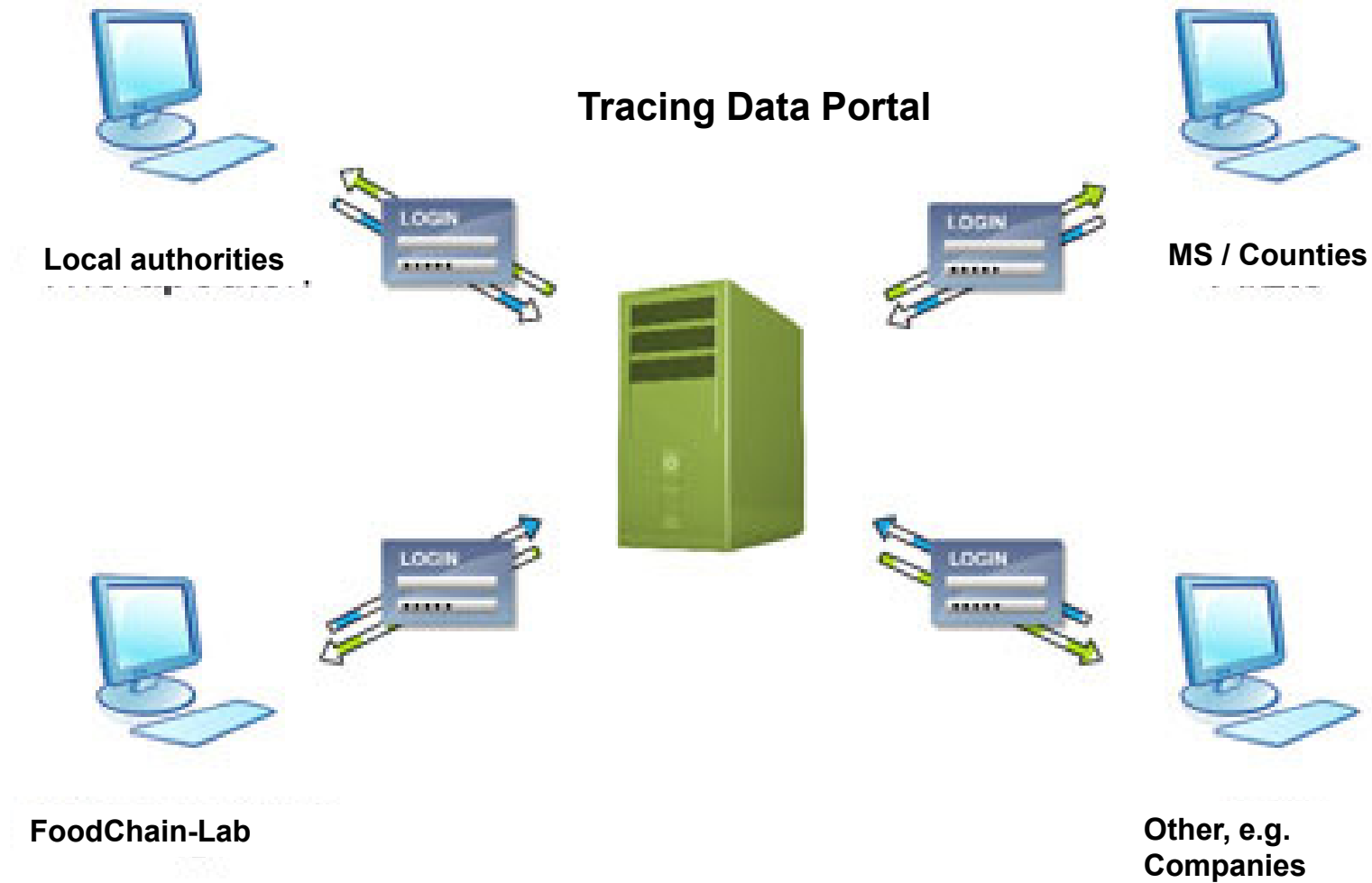
LANUV
Kompetenz für ein
lebenswertes Land

<http://digsy.land/erfassungstool/>

Landesamt für Natur,
Umwelt und Verbraucherschutz
Nordrhein-Westfalen



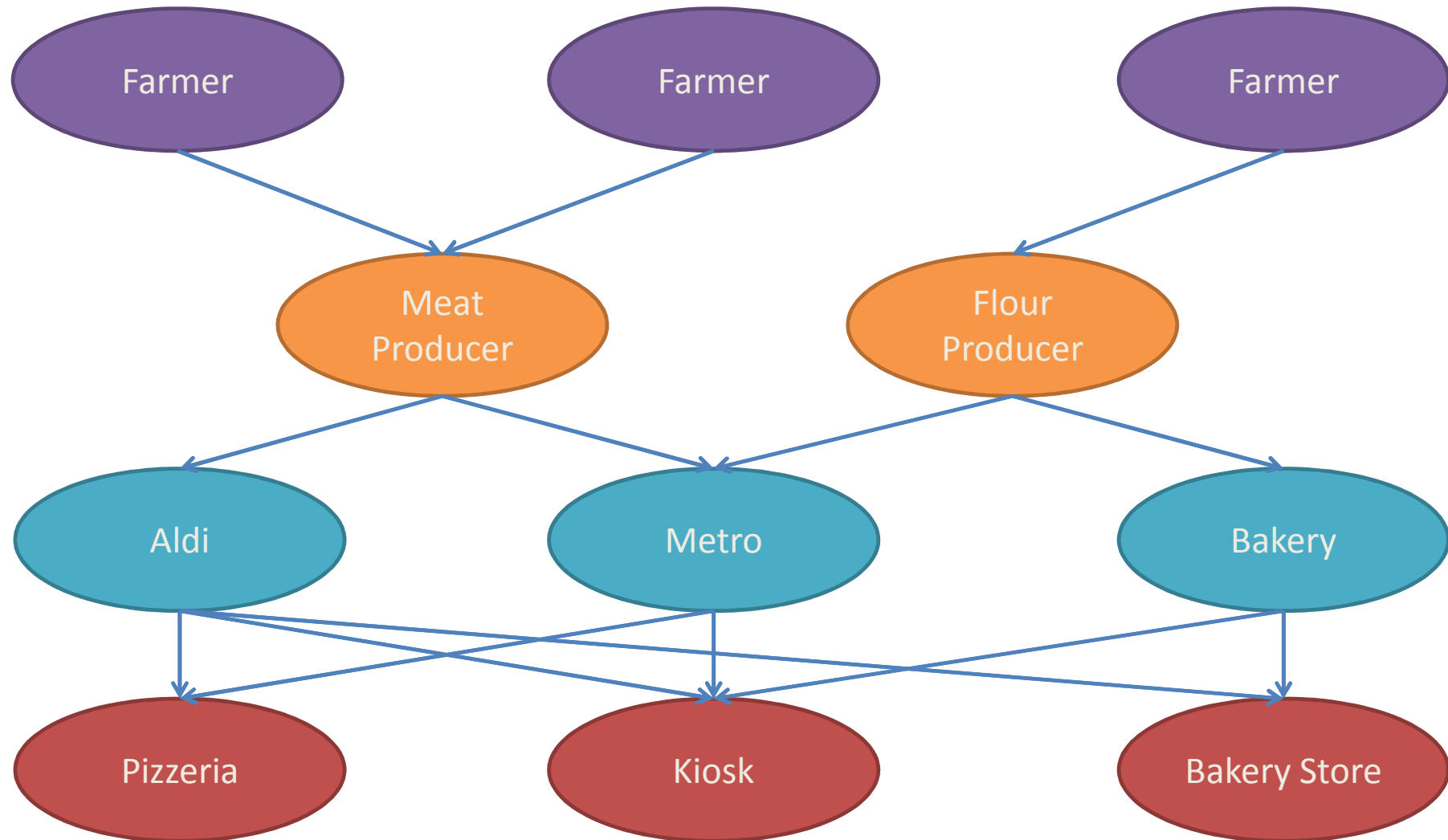
Data collection - Perspective



Data Structure Basis

- ALB Templates
- FCL Templates
- RASFF Data Collection
- BVL Data Format
- Visio
- COS

Field Study: Supply Chain



Data Fields

Collection Authority

Stations:

National Registration Number

EG Registration Number

Name

Street

House Number

Zip

City

Country

Type of Business

Products:

Productname

Brandname

EAN Code

Production/Lot:

Lot Number

Internal Productname

Amount

Amount Unit

Internal Article/Lot Number

Production Date

Delivery:

Supplier

Delivery Date

Amount

Amount Unit

Delivery Note

Arrival Date

Recipient

Sampling:

Date

Location

Number

Laboratory

Qualitative Result

Sampling Authority

Catalogues

- Companies (master datatable / database)
 - Authorities
 - Countries
 - Type of Business
 - Units
 - Product Name
-
- BUT: allow for all entries
 - Be SMART
 - most helpful data collection support, e.g.
 - Intelligent catalogue search
 - Re-use of already entered lots, companies, ...

Plausibility Checks

- Zip (City/Country)
- Sequence of Dates (Arrival -> Production -> Delivery -> BBD)
- Amount balance (Ingoing - Usage - Outgoing)

Mandatory Fields:

- Supplier (Name + Address)
- Recipient (Name + Address)
- Product Name
- Lot Number
- Delivery Date

Activities

- Production
- Relabel
- Trade
- (Sampling)

Predefined Supply Chains

- Egg
 - Types of Business:
 - „Primary Production“, „Sorting“, „Packing“, „Processor“, „Wholesaler“, „Retailer“, „Caterer/Restaurant“, „Consumer“.
 - Products:
 - Egg XL
 - Egg L
 - Egg M
 - Egg S
 - Units:
 - kg, g, Piece, (XL, L, M, S)
 - Product Details → print number

JSON Schema

```
{  
  "definitions": {},  
  "$schema": "http://json-schema.org/draft-07/schema#",  
  "$id": "http://example.com/root.json",  
  "type": "object",  
  "required": [  
    "investigation"  
  ],  
  "properties": {  
    "investigation": {  
      "$id": "#/properties/investigation",  
      "type": "object",  
      "default": null,  
      "required": [  
        "id",  
        ...  
      ]  
    }  
  }  
}
```

Data collection – Rationale, Objectives

- Use of registries – catalogues – autofill
 - (Connected to central master database)
 - On-site Plausibility checks
 - Centralized data collection – direct matching check (e.g. for stations)
 - „Fixed but flexible“ structure – e.g. dependant on the supply chain
 - Guided data collection
 - Immediate feedback for the collector
 - Data security
 - Compatibility with other systems (e.g. COS)
 - Webservice (REST) for e.g. bulk (industrial) data
 - Bridge to iRASFF System
 - Well-defined, but extendable - JSON format
-
- Applicable during foodborne outbreak investigations (MS / EU)
 - 2019: test pilot version in tracing exercise with NRW

LIVE

**Investigation: 2018-4 - FinEggs**

Status: In progress

Job number: 2018-1211

Company: Egg FACTORY Miller
Essen

Creation date: 20.02.2019

Collection administration: KOB

Outgoing

Production

Ingoing

Samples

	Result	Product	Sample Id	Lab Name	Date	
 		WE 1 - FinMehl	2342	CVUA Westfalen	26.09.2017	Details 
 		WA 1 - FinCake	481516	CVUA Westfalen	13.11.2018	Details 

Add Sample

**Fall: 2018-4 - FinEggs**

Status: In progress

Job number: 2018-1211

Company: Egg FACTORY Miller
Essen

Creation date: 20.02.2019

Collection administration: KOB

Outgoing

Production

Ingoing

Samples

Add sample

Sample number: 12345567899-18

Lab name: Labname

Sample date: 04.12.2018 

Sampling Office: KOB Essen ▼

Product: ▼

Sample location: WE 1 - FinMehl ▼

Comment: Meat chopper

Result: Looked dirty





Language

Logout

Fall: 2018-4 - FinEggs

Status: In progress

Job number: 2018-1211

Company: Egg FACTORY Miller
Essen

Creation date: 20.02.2019

Collection administration: KOB

Outgoing

Production

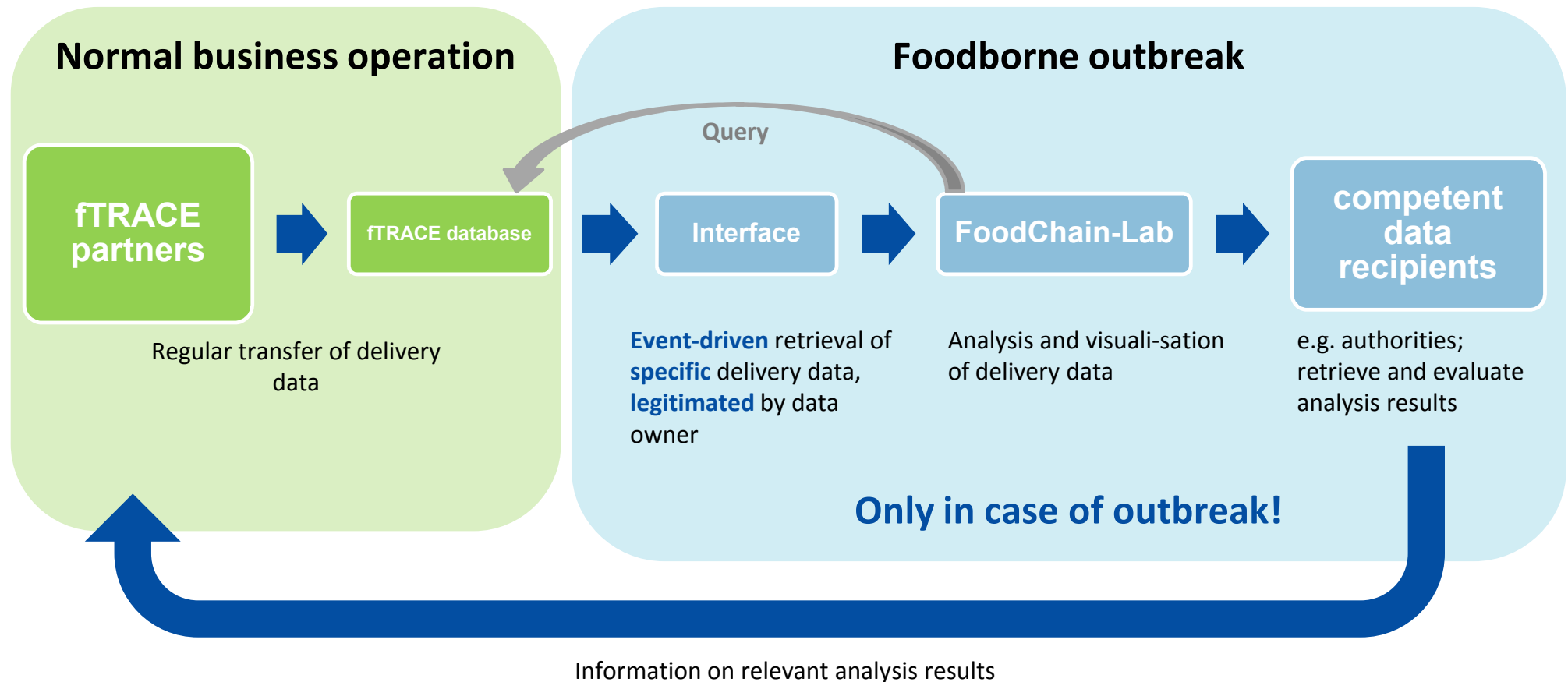
Ingoing

Samples

Edit	Name of recipient Sample	Status	Delivery date	Lot	BBD	Product	Delete
 	Flour Comp.	Done	22.02.1990	1-12	24.04.1991	Flour	 

Click on symbol:
list all samples to this product
(see slide 1)
if non there, directly go to
sample collection mask (see
slide 2).

The local view – Improved quality of tracing data through event-driven automated retrieval of delivery information (industry)



Advantages

- Harmonised data format + electronic data transfer (less effort, fast)
- Ensured data quality (standardised interfaces, legitimisation, no errorprone manual assessment)
- Efficient and reliable identify source of outbreak (minimised health and economical damage)



Thank you for your attention

Armin Weiser

<https://foodrisklabs.bfr.bund.de>

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