

What are powerful tracing methodologies? Project perspective

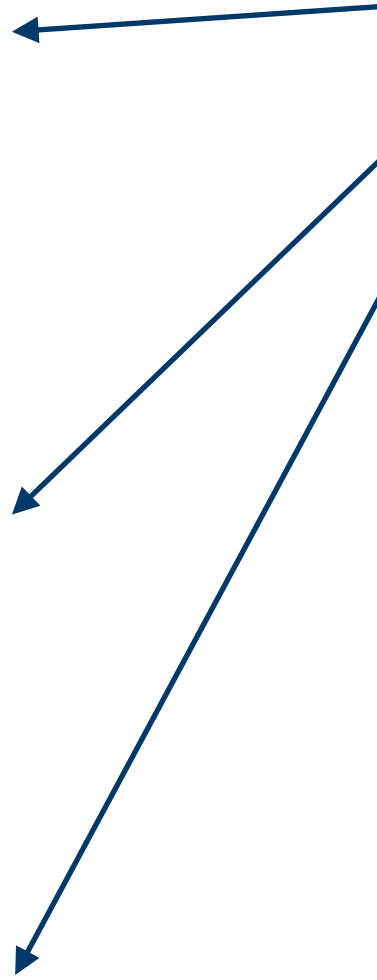
21.09.2023, Berlin

Data entry and exchange

Data entry: Automated import of delivery notes

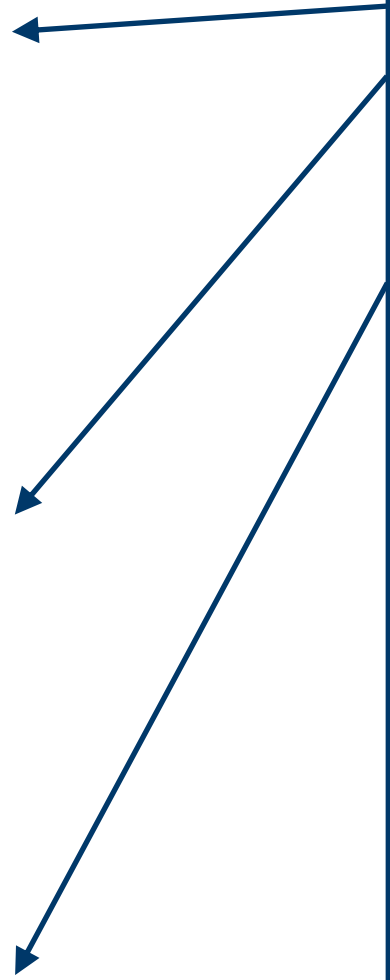
Sender	
Name	Exclusive Foxon Trading
Street	Nieuwe Waterwegstraat
Number	1
Building	
ZIP	
City	
Country	The Netherlands
Recipient	
Name	La Source des Herbes
Street	Rue de l'Eau
Number	1
Building	
ZIP	1190
City	Forest
Country	Belgium
Place of delivery	
Name	La Source des Herbes

1 Sender (name, address, country)		INTERNATIONAL CONSIGNMENT NOTE (CMR)				
Exclusive Foxon Trading Nieuwe Waterwegstraat 1 NL-3115 HE Schiedam The Netherlands						
2 Consignee (name, address, country)		16 Carrier (name, address, country)				
La Source des Herbes Rue de l'Eau 1 BE-1190 Forest Belgium		Trailor licence plate				
3 Place of delivery (address, country)		17 Successive carrier (name, address, country)				
La Source des Herbes Rue de l'Eau 1 BE-1190 Forest Belgium		Trailor licence plate				
4 Place and date of taking (address, country, date)		18 Carrier's reservations and observations				
5 Annexed documents						
Invoice no 2018-9999Fox						
6 Marks	7 No	8 Units	9 Nature of goods	10	11 Weight	12 Volume
75		Bags	Fennel seeds (F101)	(20 kg)	1650 kg	m³
16		Bags	Anise seeds (L013)	(25 kg)	440 kg	m³
					Kg	m³
					Kg	m³
Class	Number	Letter	ADR	Sum	2090 kg	m³
13 Sender's instructions (Customs and other formalities)				19 Special agreements		
14 Directions as to freight payment				20 To be paid by	Sender	Consignee
				Carriage charges		
				Supplement charges		
				Total		
21 Established in/on (date, place)				15 Cash on delivery		
Schiedam, 25/04/2018						
22 Signature/stamp of sender		23 Signature/stamp of carrier		24 Signature/stamp of consignee		
				Goods received on 30/04/2018		

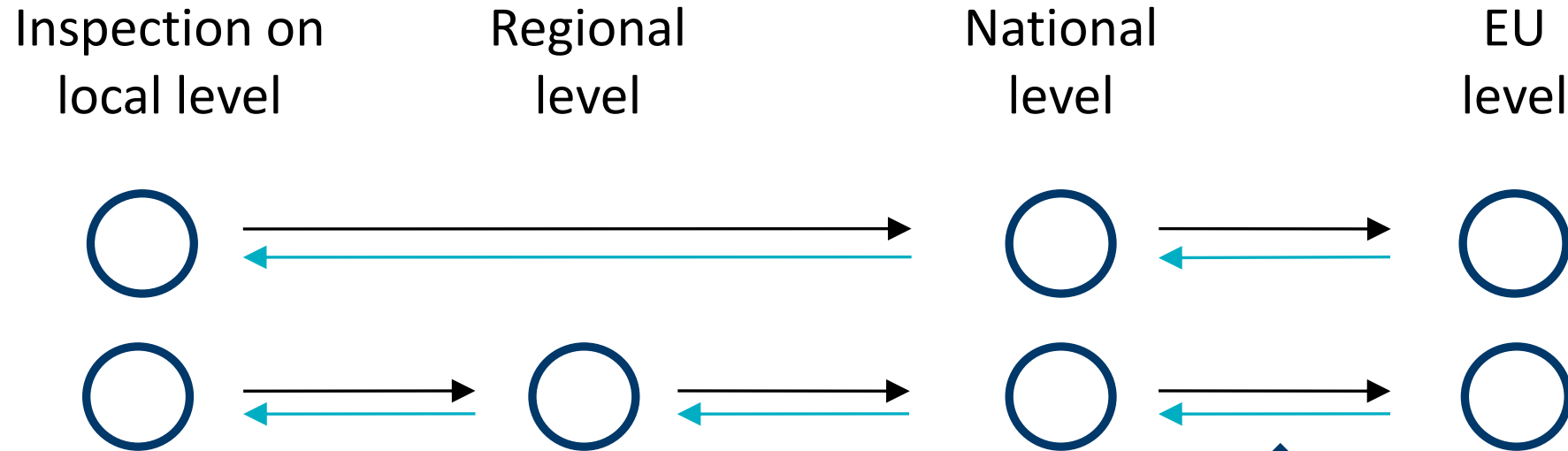


Data entry: Automated import of delivery notes

Sender	
Name	
Street	
Number	
Building	
ZIP	
City	Salaj
Country	Romania
Recipient	
Name	
Street	
Number	
Building	
ZIP	
City	Sofia
Country	Bulgaria
Place of delivery	
Name	La Source des Herbes



Data exchange during a foodborne outbreak: Standardised data format



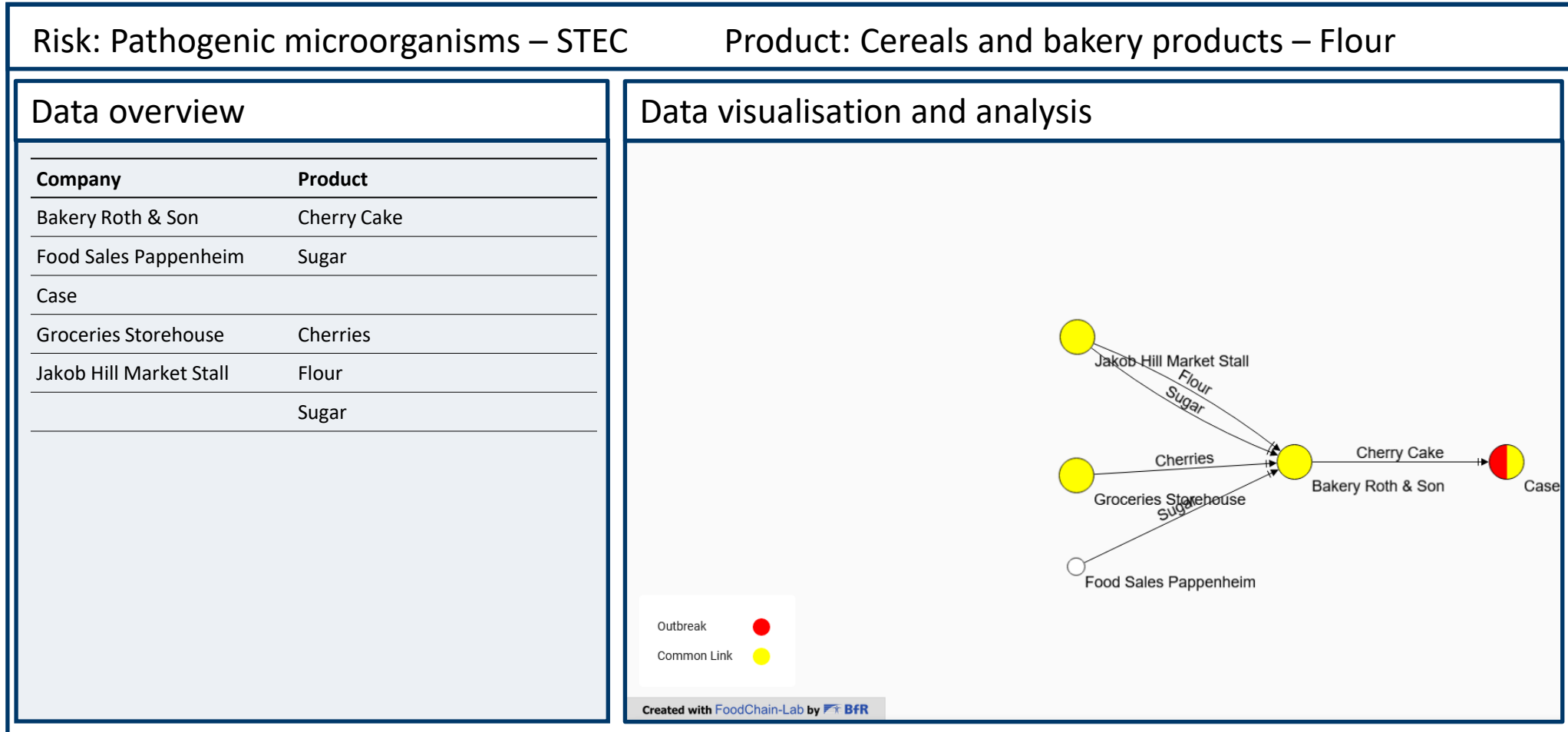
Advantages

- Less manual typing (time-consuming and error-prone)
- Same terms / labels for identical expressions in every MS
- Auto-tagging for curated data (companies, addresses) and autotext possible

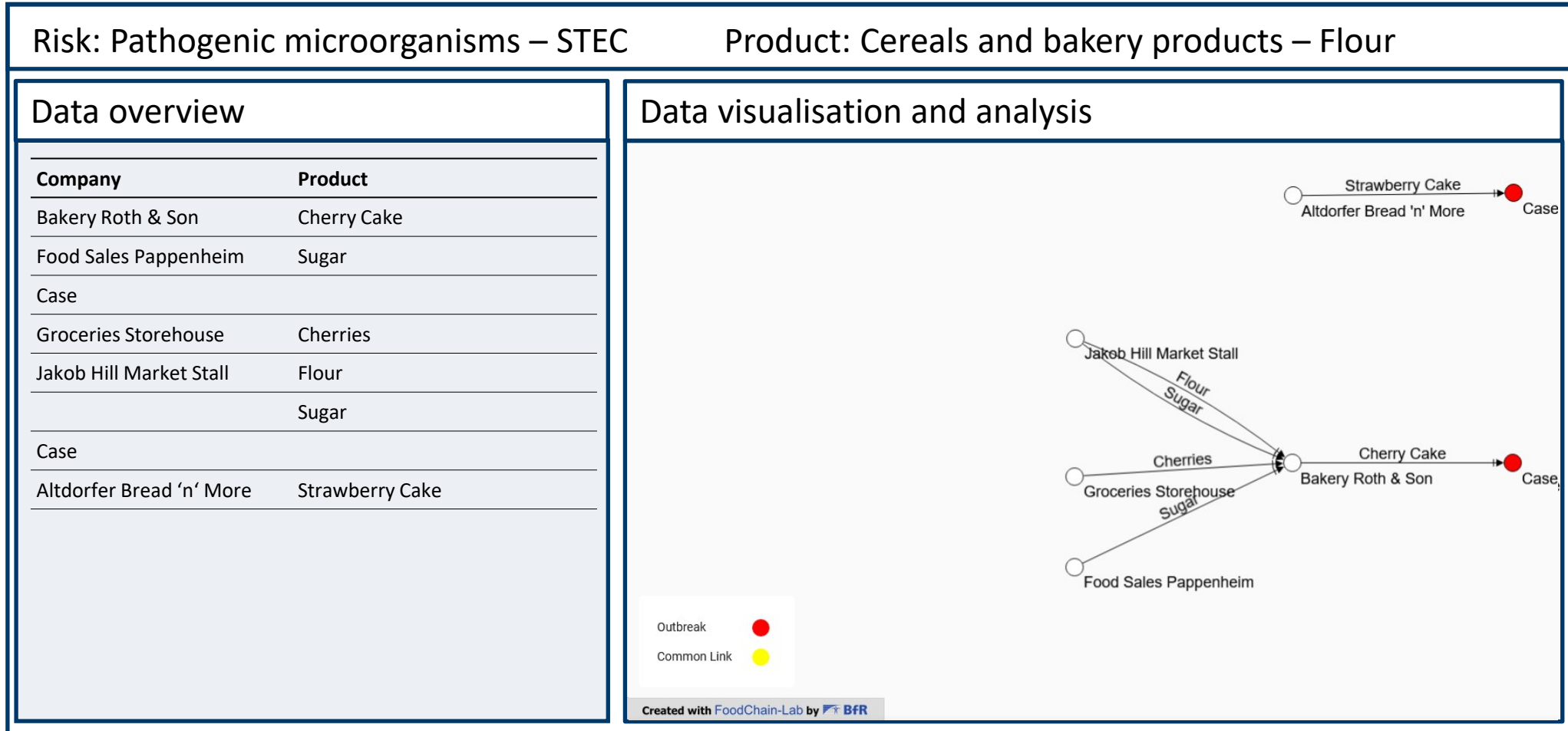
Data export to EU level
Data import from EU level

Data visualisation

Automatic supply chain visualisation



Automatic supply chain visualisation



Automatic supply chain visualisation

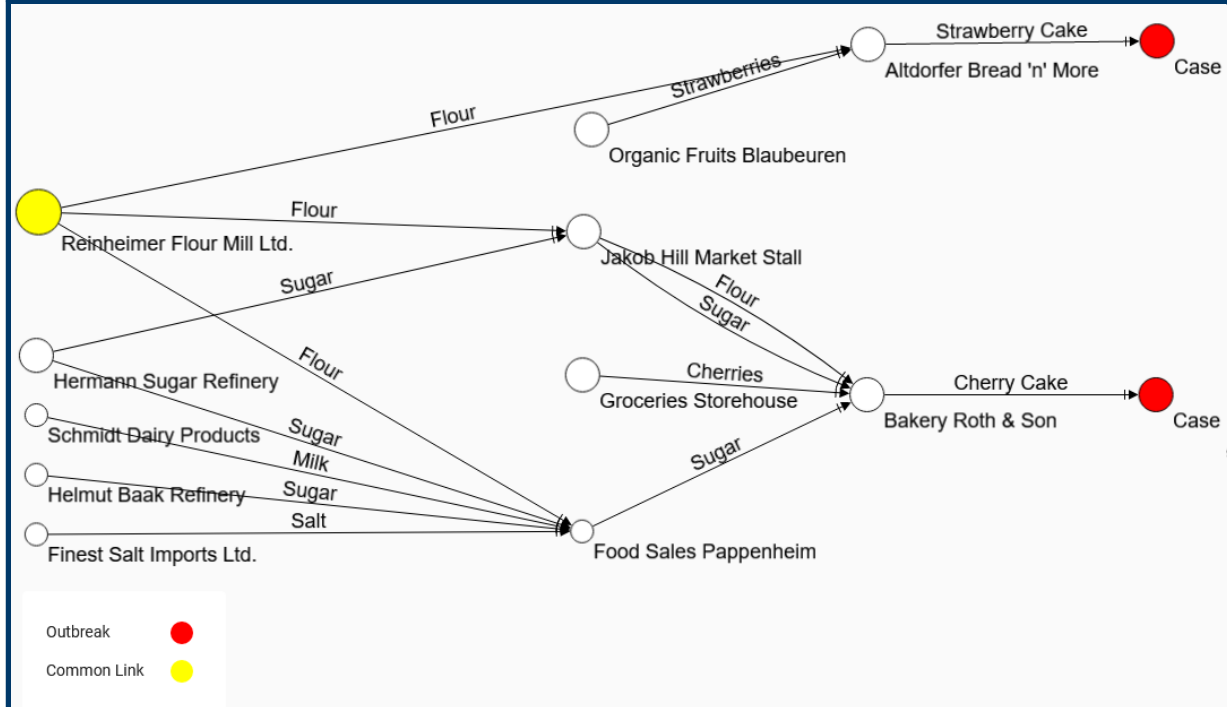
Risk: Pathogenic microorganisms – STEC

Product: Cereals and bakery products – Flour

Data overview

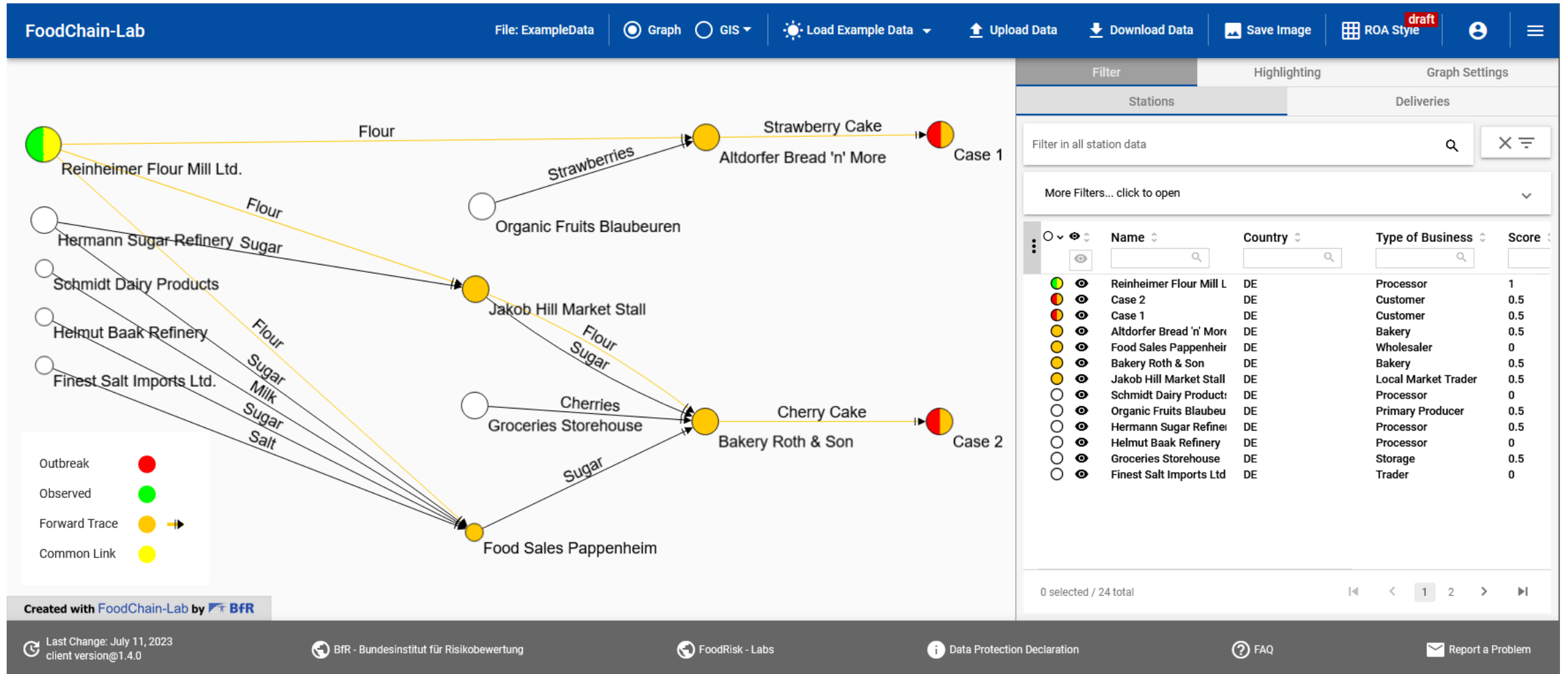
Company	Product
Bakery Roth & Son	Cherry Cake
Food Sales Pappenheim	Sugar
Case	
Groceries Storehouse	Cherries
Jakob Hill Market Stall	Flour
	Sugar
Case	
Altdorfer Bread 'n' More	Strawberry Cake
Organic Fruits Blaubeuren	Strawberries
Reinheimer Flour Mill Ltd.	Flour
	Flour
	Flour
Herrmann Sugar Refinery	Sugar

Data visualisation and analysis



Created with FoodChain-Lab by BfR

Direct access to supply chain analysis



Product and ingredient classification

Finding ingredients in complex foods using FoodEx2

FoodChain-Lab

 File: ExampleData | Graph | GIS | Load Example Data | Upload Data | Download Data | Save Image | ROA Style draft

Legend:
● Outbreak
● Common Link

Filter

Highlighting

Graph Settings

Stations

Deliveries

Filter in all delivery data

More Filters... click to open

	Product	FoodEx2-Code	FoodEx2-Name
<input checked="" type="checkbox"/>	Strawberry Cake	A00BA#F04.A003X \$F04.A01EA	Fruit cake with wheat flour, strawberries
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Strawberries	A01EA	Strawberries
<input checked="" type="checkbox"/>	Cherry Cake	A01EA#F04.A003X \$F04.A01GK\$F04.A032K	Fruit cake with wheat flour, cherries (sweet), refined beet sugar
<input checked="" type="checkbox"/>	Sugar	A032K	Refined beet sugar
<input checked="" type="checkbox"/>	Sugar	A032K	Refined beet sugar
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Cherries	A01GK	Cherries (sweet)
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Milk	A02LV	Cow milk
<input checked="" type="checkbox"/>	Salt	A042P	Salt
<input checked="" type="checkbox"/>	Sugar	A032K	Refined beet sugar

0 selected / 29 total

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 Last Change: July 11, 2023 client version@1.4.0 | BfR - Bundesinstitut für Risikobewertung | FoodRisk - Labs | Data Protection Declaration | FAQ | Report a Problem

Finding ingredients in complex foods using FoodEx2

	Product	FoodEx2-Code	FoodEx2-Name
	<input type="text"/>	<input type="text"/>	<input type="text" value="flour"/>
■	Strawberry Cake	A00BA#F04.A003X \$F04.A01EA	Fruit cake with wheat flour, strawberries
■	Flour	A003X	Wheat flour
■	Strawberries	A01EA	Strawberries
■	Cherry Cake	A01EA#F04.A003X \$F04.A01GK\$F04. A032K	Fruit cake with wheat flour, cherries (sweet), refined beet sugar
■	Sugar	A032K	Refined beet sugar
■	Sugar	A032K	Refined beet sugar
■	Flour	A003X	Wheat flour
■	Cherries	A01GK	Cherries (sweet)
■	Flour	A003X	Wheat flour
■	Flour	A003X	Wheat flour
■	Milk	A02LV	Cow milk
■	Salt	A042P	Salt
■	Sugar	A032K	Refined beet sugar

Finding ingredients in complex foods using FoodEx2

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Finding ingredients in complex foods using FoodEx2

FoodChain-Lab

File: ExampleData
Graph
GIS
Load Example Data
Upload Data
Download Data
Save Image
ROA Style draft

Filter

Highlighting

Graph Settings

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Filter in all delivery data

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	Product	FoodEx2-Code	FoodEx2-Name
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<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Cherry Cake	A01EA#F04.A003X \$F04.A01GK\$F04. A032K	Fruit cake with wheat flour, cherries (sweet), refined beet sugar
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour
<input checked="" type="checkbox"/>	Flour	A003X	Wheat flour

0 selected / 15 total

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client version@1.4.0

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FoodRisk - Labs

Data Protection Declaration

FAQ

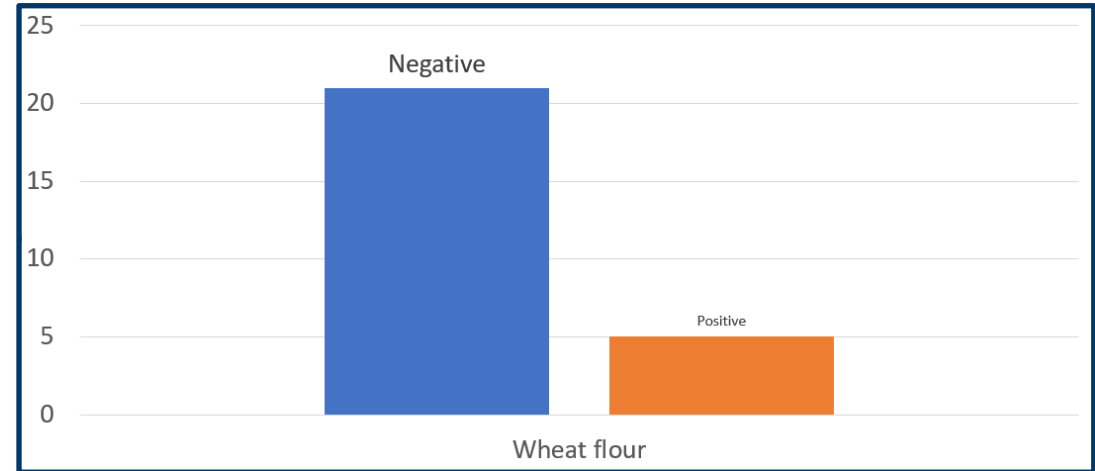
Report a Problem

15 Alexander Falenski | BfR-EFSA-Project Final Workshop | 21.09.2023 | Berlin

Trends and automated analyses at any timepoint

- Primary products derived from plant commodities [A0BXV]
 - Cereal primary derivatives [A0ETP]
 - Groats [A0BY1]
 - Semolina [A0ETL]
 - Cereal and cereal-like flours [A04KS]
 - Flour mix (like wheat/rye/barley/oats and other) [A004S]
 - Amaranth flour [A002E]
 - Barley flour [A002L]
 - Buckwheat flour [A002G]
 - Maize, milled [A0C0Z]
 - Millet flour [A002T]
 - Oat flour [A002Y]
 - Rice flour [A003F]
 - Rye flour [A003J]
 - Sorghum flour [A003T]
 - Spelt flour [A004H]
 - Wheat flour [A003X]
 - Wheat flour white [A003Y]
 - Graham flour [A003Z]
 - Wheat flour, brown [A004A]
 - Wheat wholemeal flour [A004B]
 - Wheat flour, durum [A004C]
 - Chapatti flour [A004D]

STEC in wheat flour in Germany



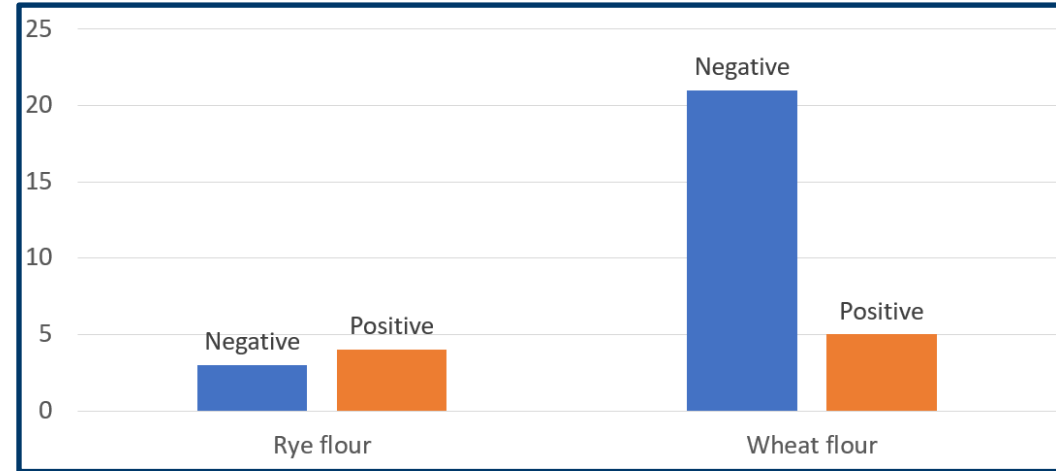
Wheat flour in the EFSA catalogue browser

<https://doi.org/10.1007/s00003-017-1113-1>

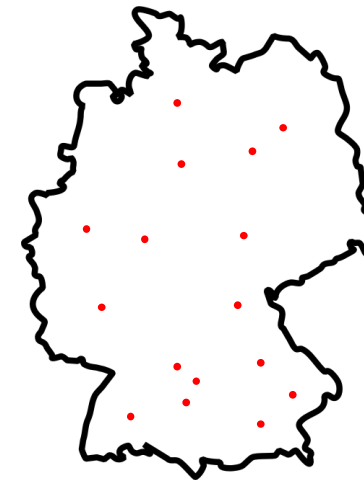
Trends and automated analyses at any timepoint

- ▼ Primary products derived from plant commodities [A0BXV]
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 - > ● Spelt flour [A004H]
 - ▼ ● Wheat flour [A003X]
 - Wheat flour white [A003Y]
 - Graham flour [A003Z]
 - Wheat flour, brown [A004A]
 - Wheat wholemeal flour [A004B]
 - Wheat flour, durum [A004C]
 - Chapatti flour [A004D]

STEC in cereal and cereal-like flours in Germany



Flour mills



Wheat flour in the EFSA catalogue browser

<https://doi.org/10.1007/s00003-017-1113-1>

The tools are already there – we need to connect them



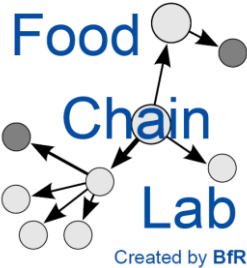
Food classification



Translation



Database, data management and data exchange platform



Supply chain analysis and visualisation



Alexander Falenski

T +49 30 18412-0

Alexander.falenski@bfr.bund.de

German Federal Institute for Risk Assessment

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