Why do we need the transition from paper-based to digital tracing?

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Joint final workshop of the EFSA-BfR traceability projects on 23rd January 2025, as virtual meeting

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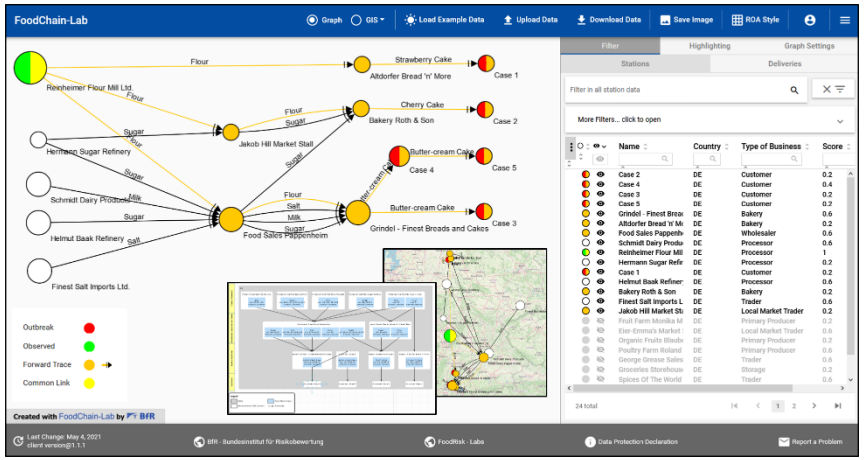
Understanding
~~Reconstructing~~ the Food Supply Chain

2011



2025

EFSA EUROPEAN FOOD SAFETY AUTHORITY

BfR

Five challenges to address in 2025

1. Increase of convenience food
2. Specialisation of production steps
3. Forced economic competition
4. Increase of disruptions
5. Information flooding

Increase of consumption of convenience food

1

Challenge: More complex supply chains due to

- More ingredients per product
- More processing steps per production

Consequences:

- Incidents maybe caused by minor ingredients
- Classification of products by ingredients, rather than primary production

Solution:

- Search index by ingredients

Specialisation of production steps

2

Challenge: Larger trade networks due to

- Only one processing step per station,
  e.g. piglets from DK, fattened in PL, slaughtered in DE, processed in IT
- Concentration of supply from specialised producers

Consequences:

- More global and larger supply networks
- New hot spots possible

Solution:

- Improved “Hot Spot” identification

Forced economic competition

3

Challenge: More fluent supply chains due to

- Supply on spot markets, auctions
- Pressure to lower prices

Consequences:

- More, changing and unclear suppliers
- More, changing and unclear quality standards

Solution:

- Handling of uncertain connections in the supply chain

Increase of disruptions

4

Challenge: More disruptions of the supply chains due to

- More frequent extreme weather conditions with reduced harvest etc.
- Trade disruptions due to epidemics, e.g. Covid-19, ASF, and wars

Consequences:

- Instable markets with unclear actors
- Replacement of ingredients, suppliers, etc

Solution:

- Better strategies to identify emerging risks / outlier detection

Information flooding

5

Challenge: Finer granularity of information due to

- Digital resource management systems
- Logistic tracking, e.g. information on every incoming container into the EU

Consequences:

- More interfaces for exchange between different digital systems
- Larger capacity for data exchange

Solution:

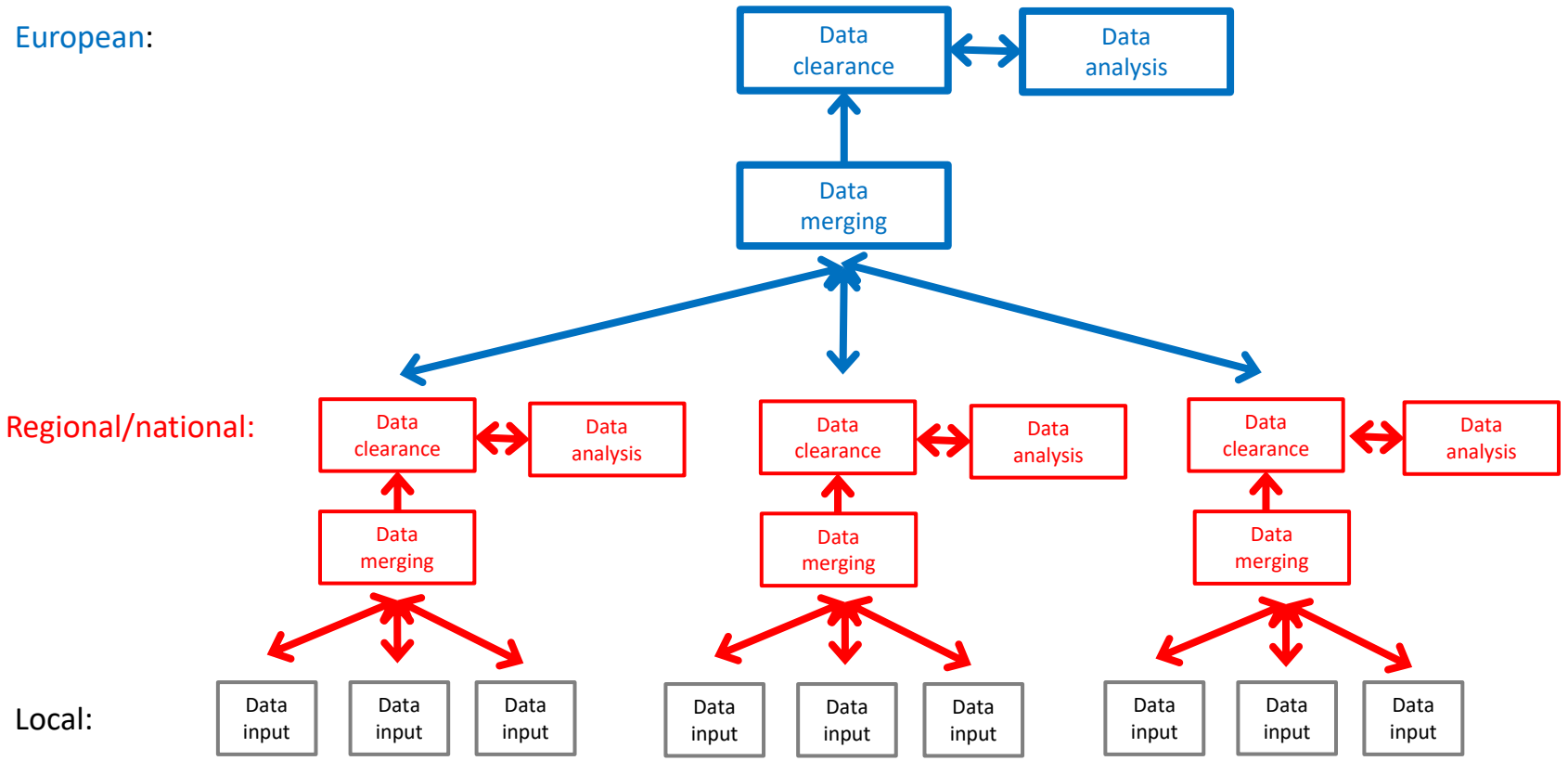
- Better strategies to reduce complexity / pattern recognition

Conclusion

Need for

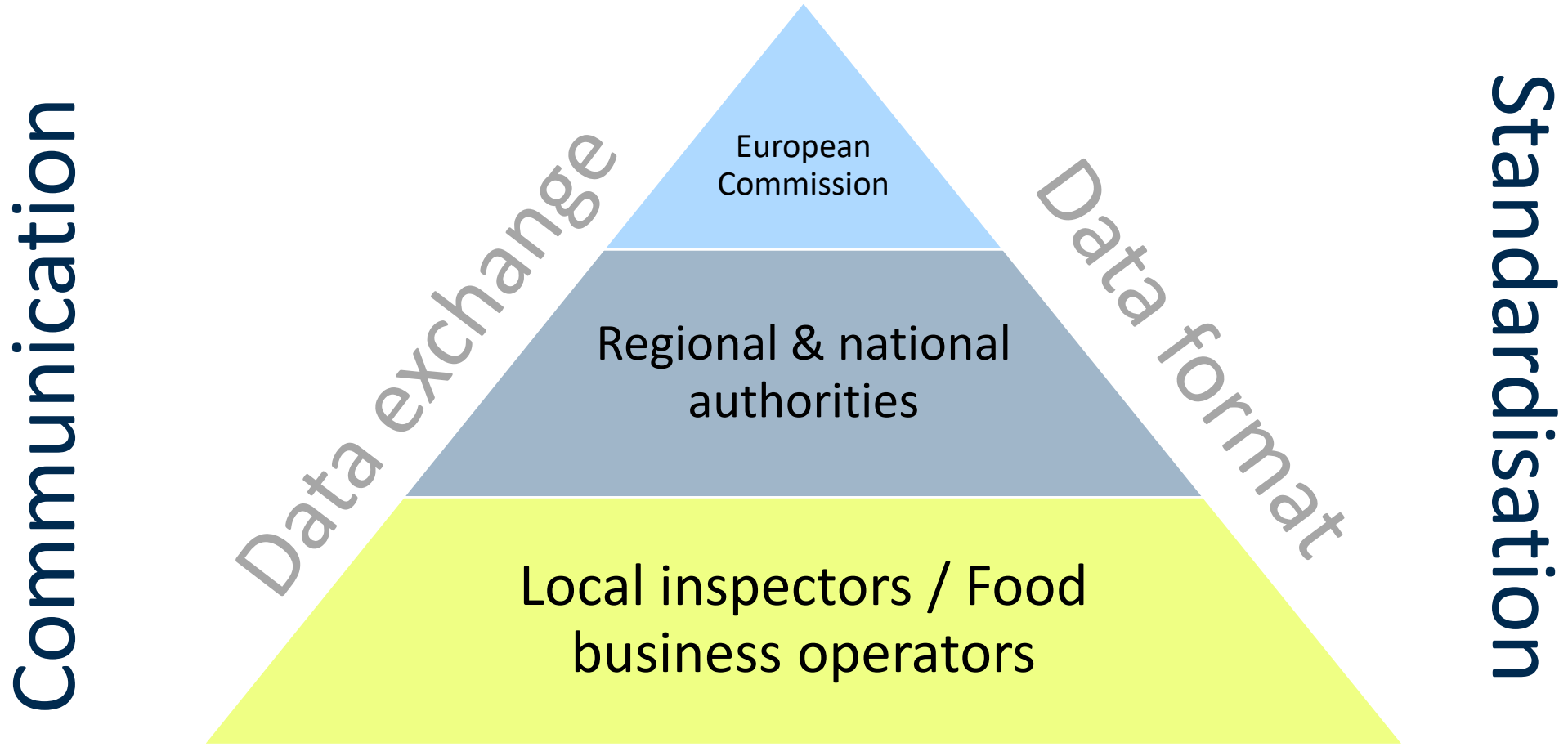
- Faster data collection
- Better data exchange
- Data analysis on growing data sets

Information workflow of tracing



Similar tasks on regional, national, and European level

Actors


Communication
Data exchange
European Commission
Regional & national authorities
Local inspectors / Food business operators
Data format
Standardisation

Similar tasks on regional, national, and European level

Similar standards:

For data collection (WHAT?)

For data classification (HOW?)

For data exchange (WHICH FORMAT?)

Similar tools:

For data input, e.g. consistency check

For data clearance, e.g. conflict solving

For data analysis, e.g. reporting, FCL

thus…

We have to move

- From an adjusted data collection to a common (distributed) dataset
- From a task of an individual institution to a common group exercise
- From a single solution to an ecosystem of several tools
- From the isolated incident to a system analysis

Project goals

- Improve the data exchange within the RASFF system, esp. for tracing data
- Enable the use of reporting and analytical tools, e.g. FoodChain-Lab
- Distribute workload from central to decentral
- Avoid double work via data exchange between EFSA and MS

Thank you
for your attention

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(Thanks to an unknown lady who permitted this photograph of her tattoo, 2016, photograph by Olaf Mosbach-Schulz)