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MAPPING THE FOOD CHAIN TO IDENTIFY NEW OPPORTUNITIES FOR FOODBORNE ZOOONOSIS SURVEILLANCE



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Data driven surveillance, an opportunity for the surveillance of foodborne zoonosis

Data driven surveillance, based on secondary data collected for other purposes than surveillance, is expected to be more cost effective than traditional surveillance. Yet, from a "One Health" perspective, no surveillance system based on secondary data is currently operational across veterinary, medical and environmental sectors in the EU.

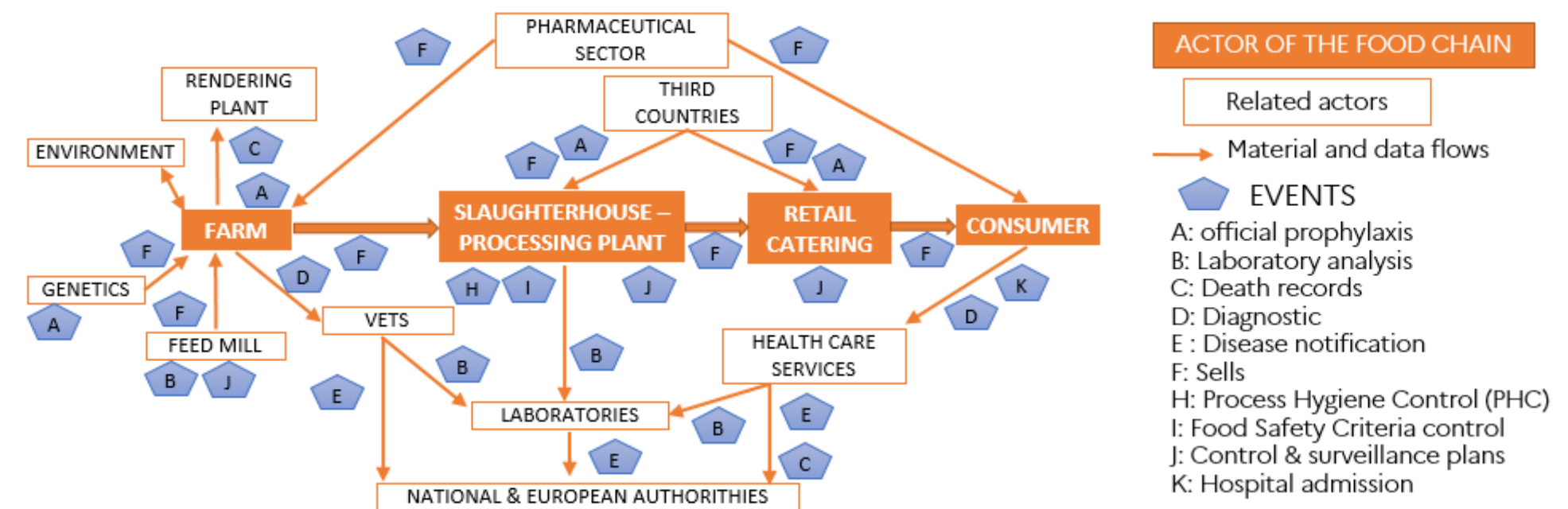
How to identify available data?

We developed a comprehensive map of the food chain, from primary production to human consumption, in order to identify potential sources of secondary data useful for foodborne zoonosis surveillance. The map was developed on expert knowledge and review of regulations.

The mapping method

- 1) Draw all actors, flows of materials and data in the chain, in order to identify the players and the opportunities for hazard propagation.
- 2) Identify events generating health indicators data, i.e. direct detection of hazards or indirect indicators of hazard presence. Various events are taken into account, as purchase of veterinary drugs or patient admission at the hospital.
- 3) Identify existing data sources in this continuum.

An example: *Salmonella* surveillance in meat sector in France, Norway, Sweden and the UK



- ✓ 49 data sources identified as relevant for *Salmonella* surveillance along the food chain
- ✓ 29 dedicated to animal health, 13 to public health, one to the environmental sector, and six covered at least two sectors.

Conclusion

The general flow chart provided a convenient framework to identify existing data sources for inter-sectoral foodborne zoonosis surveillance. We pinpointed possible but yet unused data sources. Opportunities for combining different data sources were explored in NOVA.

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