Supplement 1: Generic checklist for processing a use case

**Area A:** Population of interest

* Study design, study question
	+ What is the objective of the study?
	+ Which population should be studied?
	+ What is the statistical unit?
	+ What should the population be examined for?
	+ What is the assumed status of the population?
	+ XXX
* Statistical hypothesis to be tested
	+ XXX
* Batch, Lot
	+ What is the manufacturer's batch definition?
	+ Does it make sense to adopt this definition? If not, how is the definition usefully adapted?
	+ What is the production volume of the product?
	+ Which parts of the production volume are relevant for the investigation?
	+ XXX
* Stratification of population
	+ Is the chance of being contaminated the same for all statistical units in the population?
	+ If no homogeneous distribution can be assumed, does the definition of the batch or statistical unit need to be adjusted?
	+ Is it possible to take this into account through the form of sampling in the study?
	+ XXX

**Area B:** Food item / Matrix

* Background
	+ Which product is being considered specifically?
	+ Which products/parts of the product are still available and can be examined?
	+ Are there any reserve samples?
	+ For which target group is the product intended?
	+ If relevant: How is the product classified according to Commission Regulation (EC) 2073/2005?
	+ XXX
* Characteristics
	+ How is the product formulated?
	+ What is the nature of the food? (Solid, liquid, powder, etc.)
	+ What is the pH and Aw value of the foodstuff?
	+ What is the temperature of the product?
	+ XXX
* Production (technique)
	+ What processing steps does the product undergo?
	+ What is the production process?
	+ How does the flow of goods look like?
	+ Which spots are potentially critical for entries/sources of errors? (Keyword: HACCP)
	+ In which period of time can the suspect food have been contaminated with the agent? (Production period)
	+ Which products are manufactured at the same time as the product in question?
	+ Could other batches also be contaminated?
	+ Were any parts of the batch(es) produced during the production period of the suspect food or any specific ingredients destroyed and, if so, when and how?
	+ Did any post-treatment of the suspect food take place to eliminate the health hazard and, if so, when and how?
	+ Did other voluntary actions take place and, if so, when and which ones?
	+ How is the product stored?
	+ Is there a risk of recontamination?
	+ How is the product packaged (airtight, vacuum, inert gas...)?
	+ XXX
* Traceability
	+ When was the product produced? In which production period?
	+ Is it possible to trace the product with all its components through the production chain and beyond?
	+ Were products sourced from external producers?
	+ If so, from whom were products purchased?
	+ Can all the information be tracked?
		- Labelling (name, best before date, batch number...)
		- Delivery notes
		- XXX
	+ XXX
* Buisness information
	+ What is the size of the business?
	+ What is the company structure and business processes?
	+ How many employees are there?
	+ What number of products is produced?
	+ Does the business have any certifications etc.?
	+ What investigations are carried out by the business?
	+ Which foods are tested in the laboratory, how often and for which agents?
	+ Are there any previous findings?
	+ Which hygiene concepts are there? HACCP?
	+ What are the cleaning and disinfection plans?
	+ XXX

**Area C:** Pathogen

* Characteristics
	+ Does the pathogen form a biofilm?
	+ Does the pathogen produce toxins?
	+ XXX
* Distribution in matrix
	+ Does the pathogen tend to form nests?
	+ XXX
* Contagiousness
	+ How dangerous is the pathogen for humans?
	+ Is a risk assessment possible?
	+ What is the infectious dose?
	+ XXX
* Epidemiology
	+ How widespread is the pathogen?
	+ Where does the pathogen occur?
	+ How often does the pathogen occur in the matrix?
	+ XXX
* Microbiology
	+ What is the growth optimum of the pathogen?
	+ How long does the pathogen deliberate in the environment?
	+ In which foods does the pathogen survive and for how long?
	+ XXX

**Area D:** Laboratory analysis / Detection method

* Method
	+ Which method is suitable for detection?
	+ Which method is used by the laboratory to which the sample was sent?
	+ XXX
* Sensitivity
	+ How accurate is the test procedure? Are there any findings on this?
	+ XXX
* Specificity
	+ How accurate is the test procedure? Are there any findings on this?
	+ XXX

**Area E:** Legal regulations

* General
	+ Which legal regulations apply?
	+ What can be investigated and admonished?
	+ What action will be taken (e.g. in case of detection)?
	+ XXX
* Responsibilities
	+ Who is responsible?
	+ What instructions and flow charts are there?
	+ XXX
* Sampling
	+ Are there mandatory sampling procedures?
	+ If so, how must the samples be taken? (Number, location, technique, type, product...)
	+ Do counter or duplicate samples have to be taken?
	+ XXX
* Detection method
	+ Is there a legal regulation that prescribes a certain detection method?
	+ If so, which one is prescribed?
	+ XXX
* Limit values
	+ Are there legally prescribed limit values?
	+ If so, which ones and how high?
	+ XXX

**Area F:** Veterinary administration

* Staff capacity
	+ What can the veterinary authority contribute?
	+ Which sample sizes are to be supported?
	+ XXX
* Financial capacity
	+ What can the veterinary authority contribute?
	+ Which sample sizes are to be supported?
	+ XXX

**Area G:** Statistical parameters

* Calculation method
	+ What is the professional core question?
	+ A: Concept of state freedom from an event
	+ B: Concept of calculating a confidence interval (CI)
	+ XXX
* Statistical errors
	+ What inaccuracy can be accepted?
	+ Alpha
	+ Beta
	+ XXX
* Effect size
	+ Absolute error delta
	+ Measures of uncertainty
	+ XXX
* Prevalence (limit) or acceptance number
	+ What prevalence can be assumed from a professional point of view? What is acceptable?
	+ What is the maximum number of nonconforming units or the maximum number of nonconformities allowed in the sample?
	+ XXX

XXX = individual addition for the respective use case