

WG 2

Farm-level controls & risk categorisation of farms

Objectives and work in WG2

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WG 2

23 experts from 20 countries



COST Action CA18105

WG 2 Objectives & Tasks

Objective 2.1

Assessment of the effectiveness of **pre-harvest meat safety interventions** (on-farm and in-farm-to-abattoir stages);



Objective 2.2

Assessment of the performance of **Food Chain Information (FCI)** and improvements



Objective 2.3

Assessment of **harmonized epidemiological indicators (HEI)** in risk categorisations of farms;



Task 2.1

Training school on pre-harvest meat safety interventions and Food Chain Information;



Task 2.2

Workshop on Food Chain Information improvements;



Task 2.3

Workshop on use of harmonized epidemiological indicators in farm risk categorization;



Month 23 (February 2021):

Report on pre-harvest meat safety interventions and FCI assessment and improvements

Month 45 (December 2022):

Report on the use of harmonized epidemiological indicators for specific hazards in farm risk categorisation

Core topics of WG 2

**Food Chain
Information (FCI)**

**Harmonized epidemiological
indicators (HEI)**

RIBMINS main goal
„MEAT SAFETY“



**Pre-harvest
interventions**

Legal basis – according to Regulation (EU) No. 853/2004

The relevant food chain information

- (a) the **status of the holding** of provenance or the **regional animal health status**;
- (b) the **animals' health status**;
- (c) **veterinary medicinal products** or other treatments administered to the animals within a relevant period and with a withdrawal period greater than zero, together with their dates of administration and withdrawal periods;
- (d) the occurrence of **diseases that may affect the safety** of meat;
- (e) the **results**, if they are **relevant to the protection of public health**, of any analysis carried out on samples taken from the animals or other samples taken to diagnose diseases that may affect the safety of meat, including samples taken in the framework of the **monitoring and control of zoonoses and residues**;
- (f) relevant reports about **previous ante- and post-mortem inspections** of animals from the same holding of provenance including, in particular, reports from the official veterinarian;
- (g) **production data**, when this might indicate the presence of disease; and
- (h) the **name and address of the private veterinarian** normally attending the holding of provenance.

Basis: Scientific reports from EFSA:

”Technical specifications on harmonised epidemiological indicators (HEIs) for biological hazards to be covered by meat inspection of different species*”
(EFSA Journal 2013;11(6):3276)

Definitions:

The prevalence or concentration of the **hazard** at a certain stage of the food chain **that correlates with the human health risk** caused by the hazard.

Indirect indicators of the hazards, audits of farms or transport, are also covered and could be HEIs

Purpose of HEIs:

a) categorization of herds and slaughterhouses in meat safety assurance system

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Example: HEIs for bovines

Table 1: Harmonised epidemiological indicators for *Salmonella* in bovine animals

Indicators (animal/ food category/other)	Food chain stage	Analytical/diagnostic method	Specimen
HEI 1: Practices which increase the risk of introducing <i>Salmonella</i> into the farm (purchase policy, mixing with other herds, access to pasture, access to surface water)	Farm	Auditing	Not applicable
HEI 2: On-farm practices and conditions	Farm	Auditing	Not applicable
HEI 3: <i>Salmonella</i> status of the group(s) of bovine animals containing animals to be slaughtered within one month	Farm	Microbiology	Pooled faeces
HEI 4: Transport and lairage conditions	Transport and lairage	Auditing	Not applicable
HEI 5: Visual inspection of hide conditions of animals at lairage (clean animal scoring system)	Slaughterhouse	Visual inspection	Not applicable
HEI 6: <i>Salmonella</i> on incoming animals (after bleeding and before dehiding)	Slaughterhouse	Microbiology (detection and serotyping)	Hide swabs
HEI 7: <i>Salmonella</i> in incoming animals (evisceration stage)	Slaughterhouse	Microbiology (detection and serotyping)	Lymph nodes
HEI 8: <i>Salmonella</i> on carcasses pre-chilling	Slaughterhouse	Microbiology (detection and serotyping)	Carcase swabs
HEI 9: <i>Salmonella</i> on carcasses post-chilling	Slaughterhouse	Microbiology (detection and serotyping)	Carcase swabs

WG 2 meeting in Berlin

22.-24.10.2019

Freie Universität



Berlin



COST Action CA18105

8 countries

Main tasks for the WG 2 meeting

- Discussing similarities and differences in the application of FCI and HEI in different countries
- Developing a draft of a stakeholder questionnaire to gain information on the status-quo and improvements of FCI and HEI



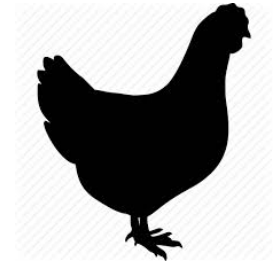
- demographic data (country)
- professional background (official vet, food business operator)
- livestock sector (broiler, turkey, pig, bovine)
- number of slaughterings/day/hour

What is in place?, Consequences?, What should be added? Why?

- transmission procedure (paper-based, fax, e-mail, mobile App, ...)
- source of information regarding current outbreaks of notifiable diseases (a)
- monitoring system/ HEIs (b, d, e)
- mortality data (b, g)
- treatment data (b, c, g)
- data from private vet (h)
- ante-and post-mortem inspection results (f)
- data on pregnancy/cleanliness of animals (g, extra)
- feedback to the farmer (which information?, how?)
- other (quality assurance system, husbandry system, ...)

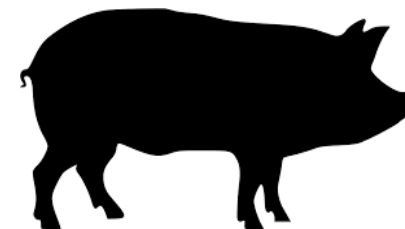
Example: HEIs for broiler Salmonella monitoring system

Point of sampling	Samples	Methods
<ul style="list-style-type: none"> ○ Hatchery/Farm start of new round 	<ul style="list-style-type: none"> ○ Box paper ○ Boot swabs/pooled feces ○ Others: _____ 	<ul style="list-style-type: none"> ○ Microbiology ○ PCR ○ Others: _____
<ul style="list-style-type: none"> ○ Farm – prior to slaughter 	<ul style="list-style-type: none"> ○ Boot swabs/pooled feces ○ Dust ○ Audit ○ Others: _____ 	<ul style="list-style-type: none"> ○ Microbiology ○ PCR ○ Others: _____
<ul style="list-style-type: none"> ○ Slaughterhouse before chilling 	<ul style="list-style-type: none"> ○ Feces ○ Cecal contents ○ Others: _____ 	<ul style="list-style-type: none"> ○ Microbiology ○ PCR ○ Others: _____
<ul style="list-style-type: none"> ○ Slaughterhouse after chilling 	<ul style="list-style-type: none"> ○ Swabs ○ Tissue sample ○ Others: _____ 	<ul style="list-style-type: none"> ○ Microbiology ○ PCR ○ Others: _____
<ul style="list-style-type: none"> ○ Other: 	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○



Example: HEIs for pigs Yersinia monitoring system

Point of sampling	Samples	Methods	Reason for testing
<ul style="list-style-type: none"> At Farm 	<ul style="list-style-type: none"> Faeces Blood Oral fluids Auditing Others: _____ 	<ul style="list-style-type: none"> Microbiology PCR Serology Others: _____ 	<ul style="list-style-type: none"> preselection of herds before slaughter logistic slaughter intensification of meat inspection channelling of the processed products no consequence others: _____
<ul style="list-style-type: none"> Slaughterhouse before chilling 	<ul style="list-style-type: none"> Meat Juice blood Ileal content tonsil Swabs Others: _____ 	<ul style="list-style-type: none"> Microbiology PCR Serology Others: _____ 	<ul style="list-style-type: none"> intensification of meat inspection channelling of the processed products Feedback to farm no consequence others: _____
<ul style="list-style-type: none"> Slaughterhouse after chilling 	<ul style="list-style-type: none"> Swabs Tissue sample Others: _____ 	<ul style="list-style-type: none"> Microbiology PCR Others: _____ 	<ul style="list-style-type: none"> intensification of meat inspection channelling of the processed products Feedback to farm no consequence others: _____
<ul style="list-style-type: none"> Other sampling points 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none">



Next tasks (objective 2.2 and objective 2.3)

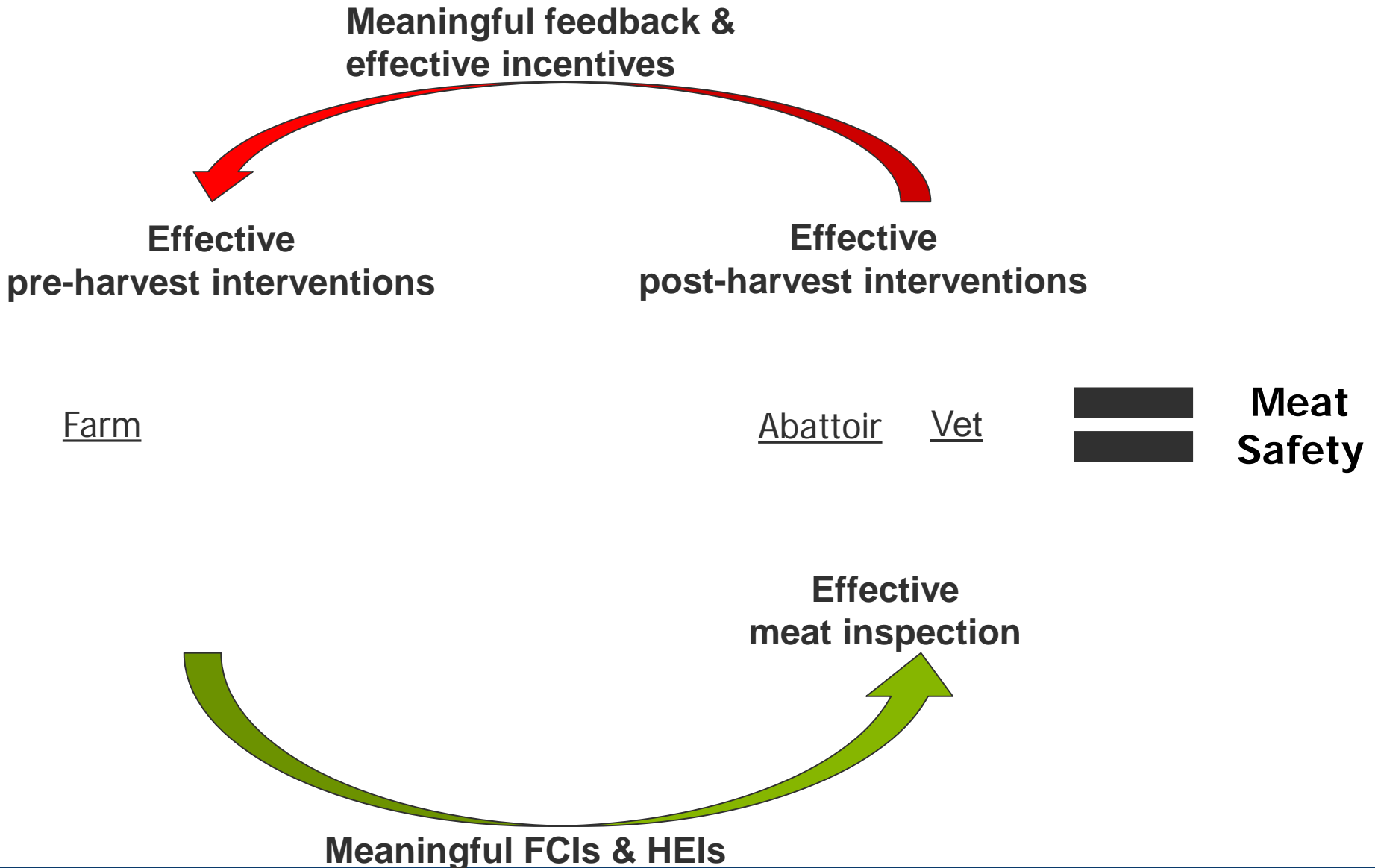
Status-quo and improvements of FCI and HEI

- Identifying volunteers like PhD students, doctoral students (Copenhagen)
- Discussing the draft of the joint questionnaire (WG 2 in Copenhagen)
- Including the questions in an online survey tool like LimeSurvey®
- Validating the online survey by volunteer stakeholders
- Dissemination of the final version via **all RIBMINS members**
- Evaluating the „general outcomes“ (tick box) of the survey
- Evaluating the „specific outcomes“ (free text) of the survey

Next tasks (objective 2.1)

Assessment of the effectiveness of pre-harvest meat safety intervention (on-farm and in-farm-to-abattoir stages)

- Literature review on the effectiveness of pre-harvest interventions by volunteers
-**further steps needs to be discussed!**





Thank you for your attention