

16 January 2020

EFSA scientific opinions on rabbit welfare

Nikolaus Kriz

Head of Animal and Plant Health (ALPHA) Unit

Trusted science for safe food



180 million rabbits farmed for meat annually in the EU

66% of the total EU production kept in conventional farms: medium and large size farms (>600 breeding does) all over Europe (about 4500 farms producing)

Public concerns: poor welfare, high stress, high mortality, no specific stunning methods

No species-specific legislation protecting the welfare of farmed rabbits exists in the EU



EP resolution on minimum standards for the protection of farmed rabbits

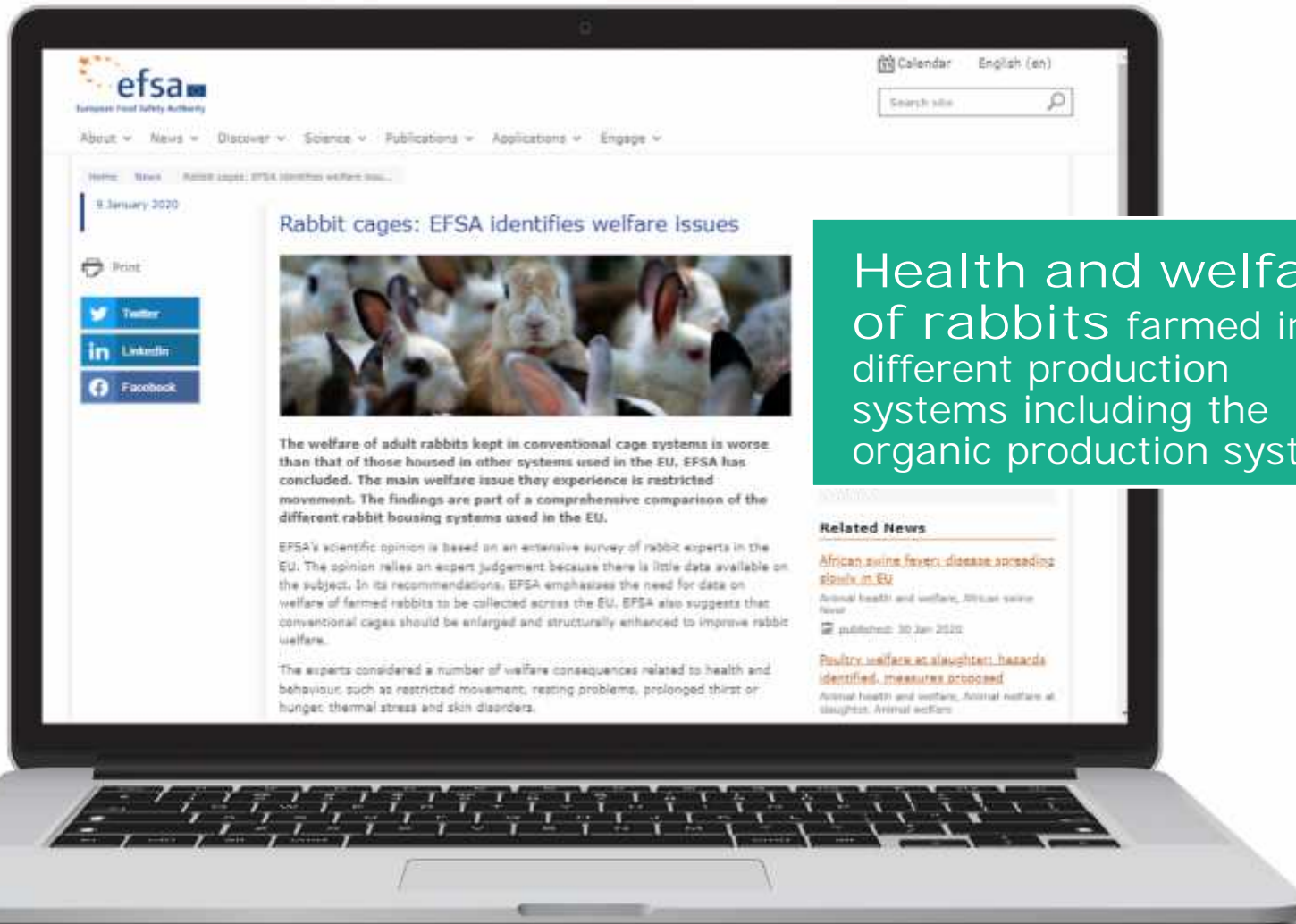
Request to EFSA to provide **scientific advice** on:

Health and welfare of rabbits farmed in different production systems including the organic production system (Scientific opinion 1)

“Stunning methods and slaughter of rabbits for human consumption” (Scientific opinion 2)

“Killing methods for rabbits (not for human consumption)” (Scientific opinion 3)

Scientific opinion 1



Health and welfare of rabbits farmed in different production systems including the organic production system

Step 1: define animal categories

Animal categories



Reproducing does



Kits



Growing rabbits

Step 2: identify housing systems

Conventional production

Conventional cages

Structurally enriched cages

Elevated pens

'Niche' production

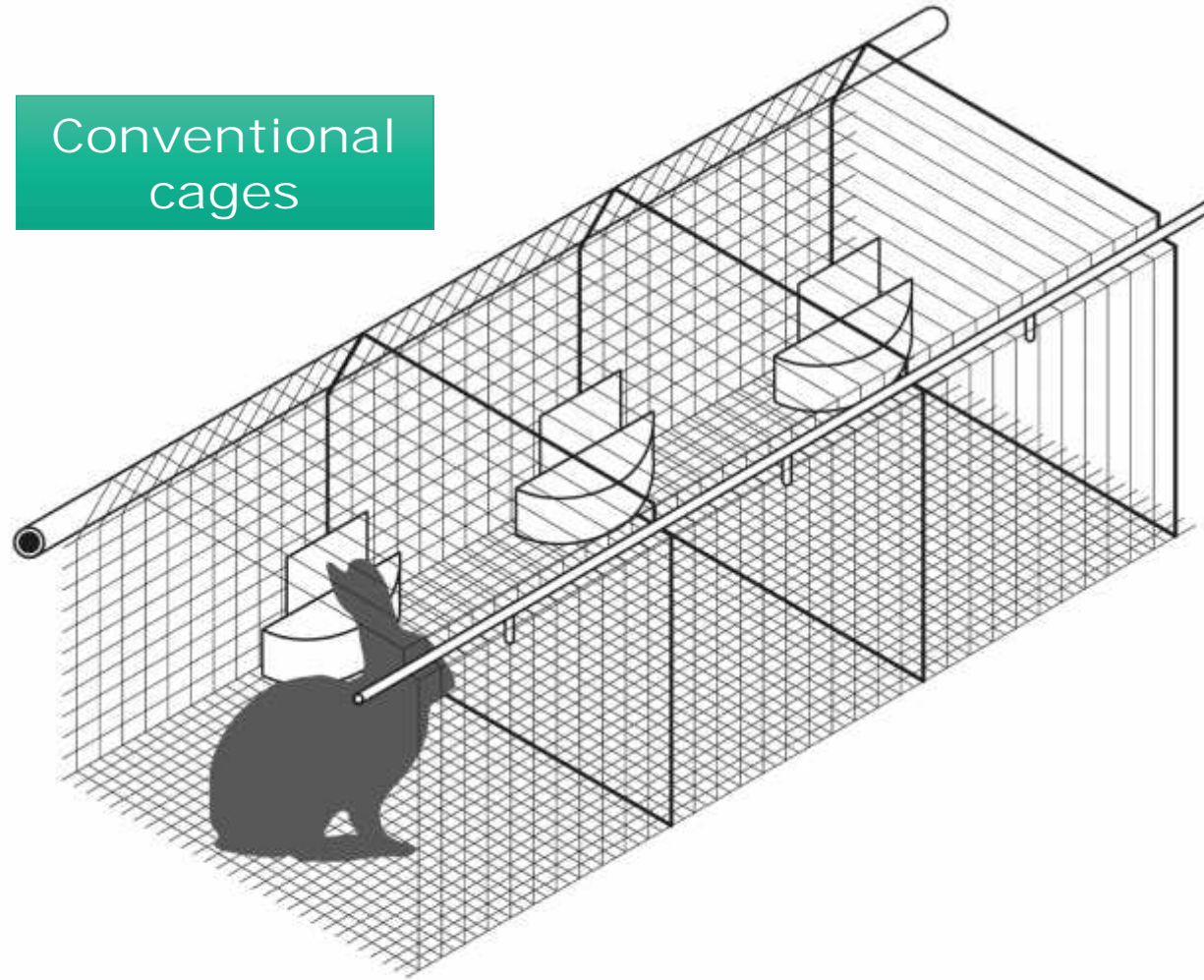
Floor pens

Outdoor /partially outdoor systems

Organic systems

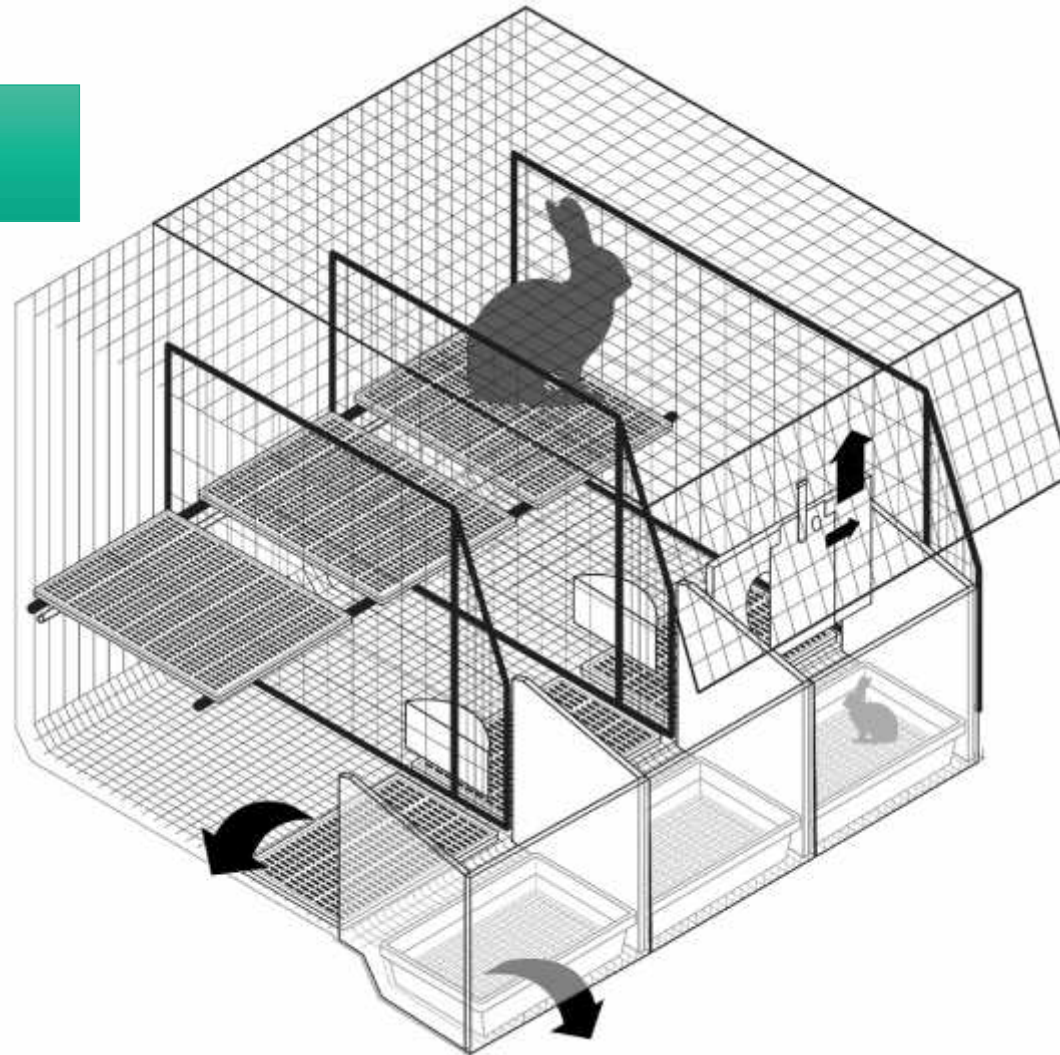
Examples of conventional rabbit housing systems

Conventional cages



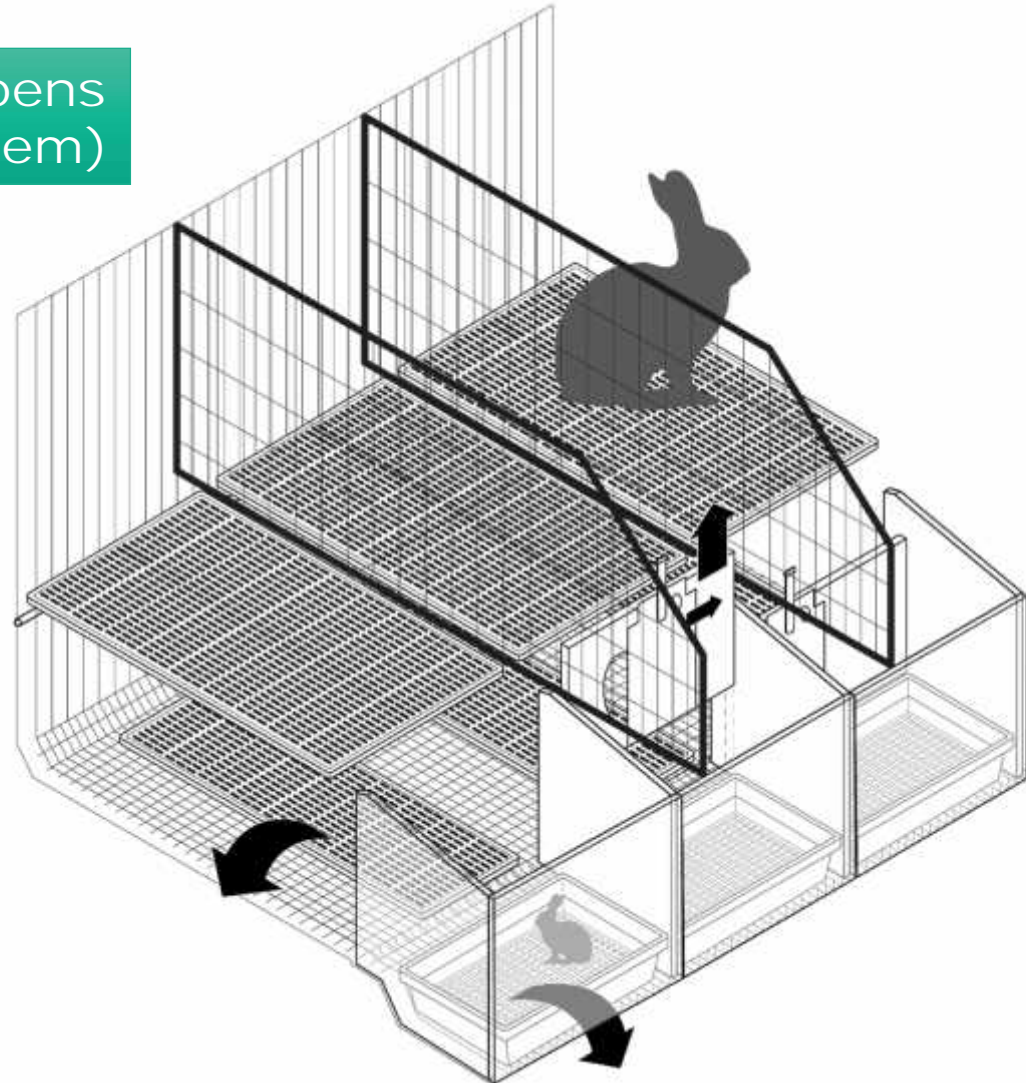
Examples of conventional rabbit housing systems

Enriched cages

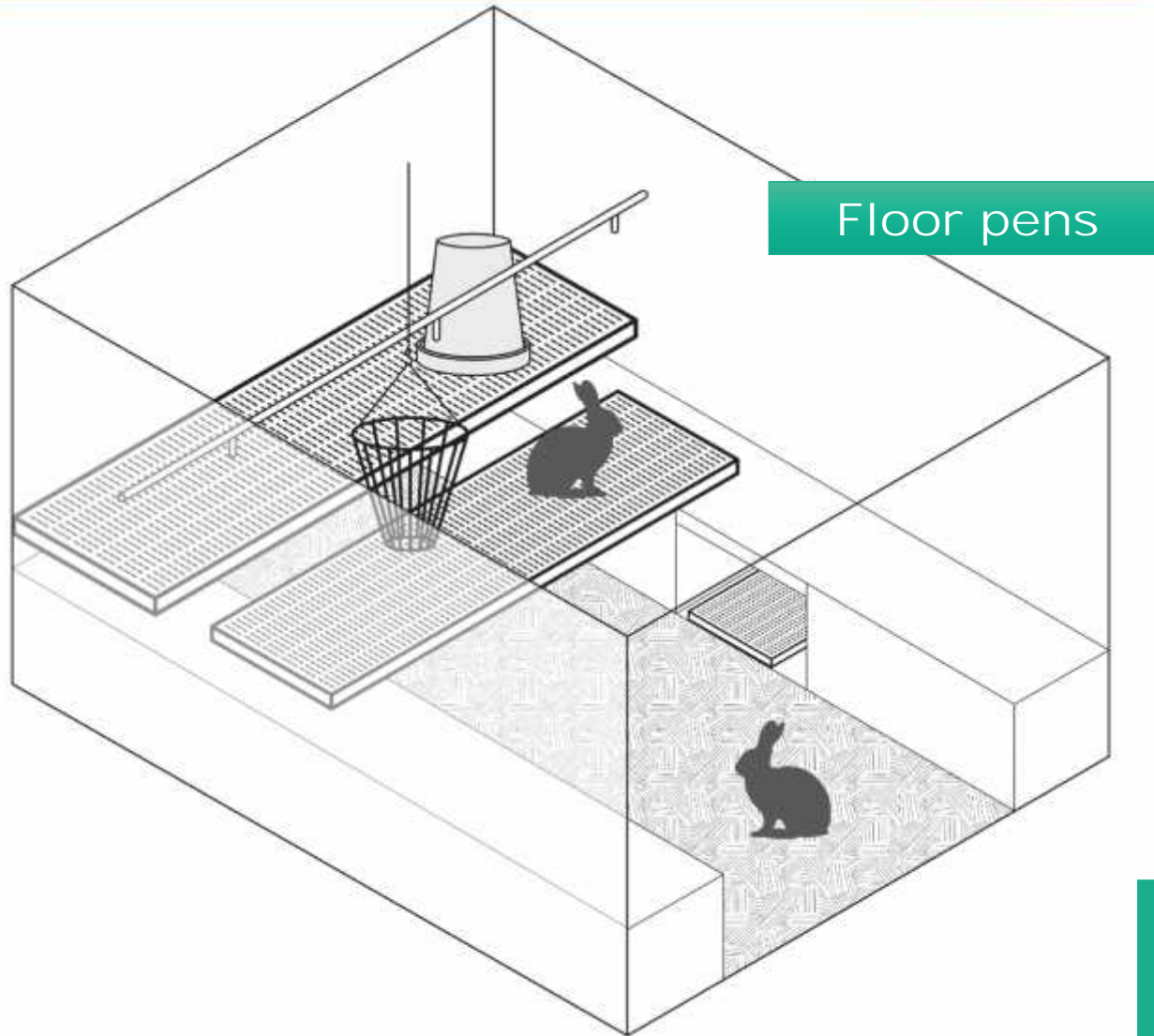


Examples of conventional rabbit housing systems

Elevated pens
(Park system)



Examples of niche production systems for rabbits

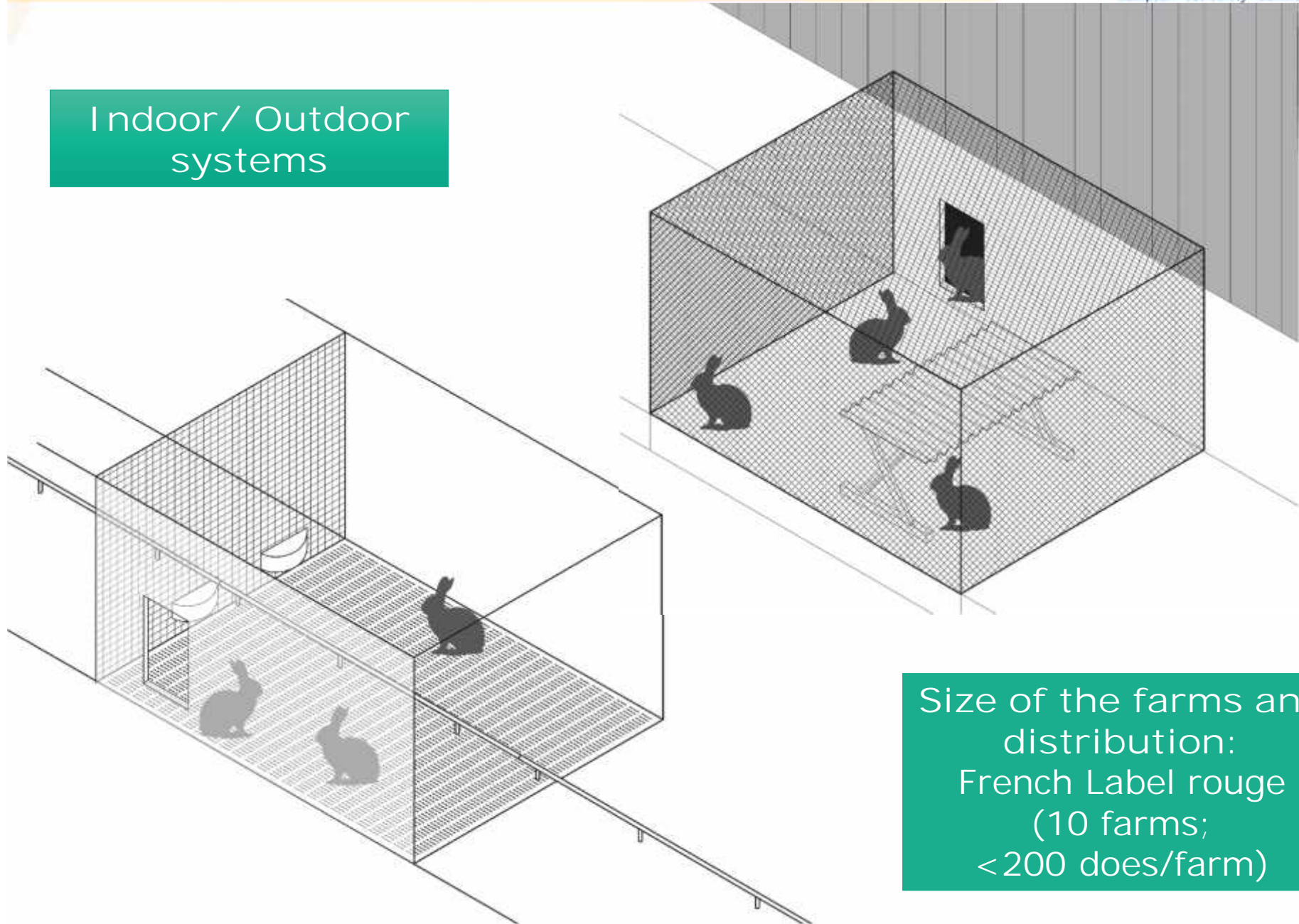


Floor pens

Size of the farms and distribution:
Swiss farms
(about 56 farms with
60 does/farm)

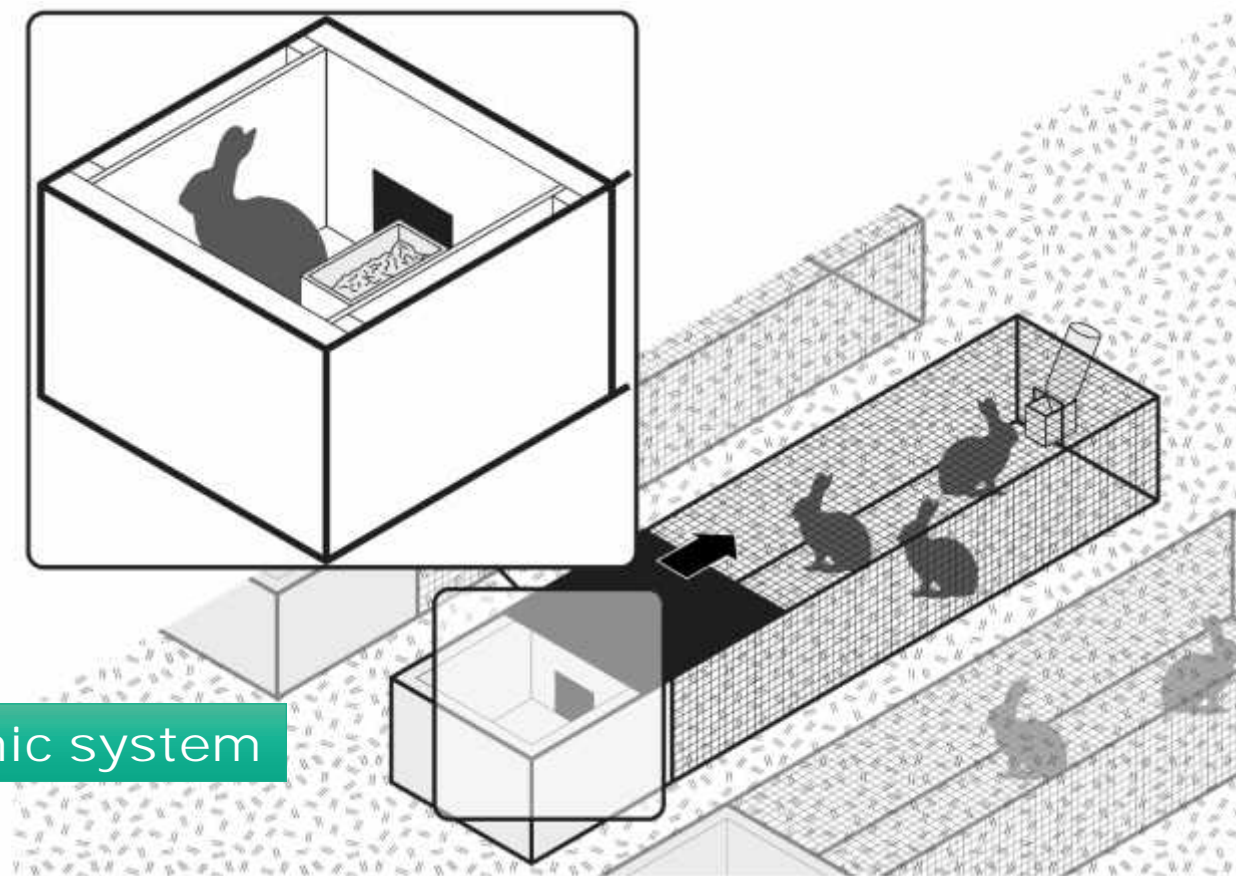
Examples of niche production systems for rabbits

Indoor/ Outdoor systems



Size of the farms and distribution:
French Label rouge
(10 farms;
<200 does/farm)

Examples of niche production systems for rabbits



Organic system

Size of the farms and distribution:
French system (50 farms;
<50 does/farm)

WELFARE CONSEQUENCES

Behaviour-related

- Restriction of movement
- Resting problem
- Inability to express maternal behaviour
- Inability to express positive social behaviour
- Inability to express gnawing behaviour
- Occurrence of abnormal behaviour
- Fear

Health-related

- Prolonged hunger
- Prolonged thirst
- Pododermatitis
- Locomotory disorders
- Skin lesions
- Respiratory disorders
- Gastro-intestinal disorders
- Skin disorders
- Reproductive disorders
- Mastitis
- Neonatal disorders
- Heat stress
- Cold stress

Examples of behaviour-related welfare consequences



RESTRICTION OF
MOVEMENT



GNAWING
BEHAVIOUR



SOCIAL
BEHAVIOUR



ABNORMAL
BEHAVIOUR

Examples of health-related welfare consequences



SKIN
LESIONS



SKIN LESIONS
FOR KITS



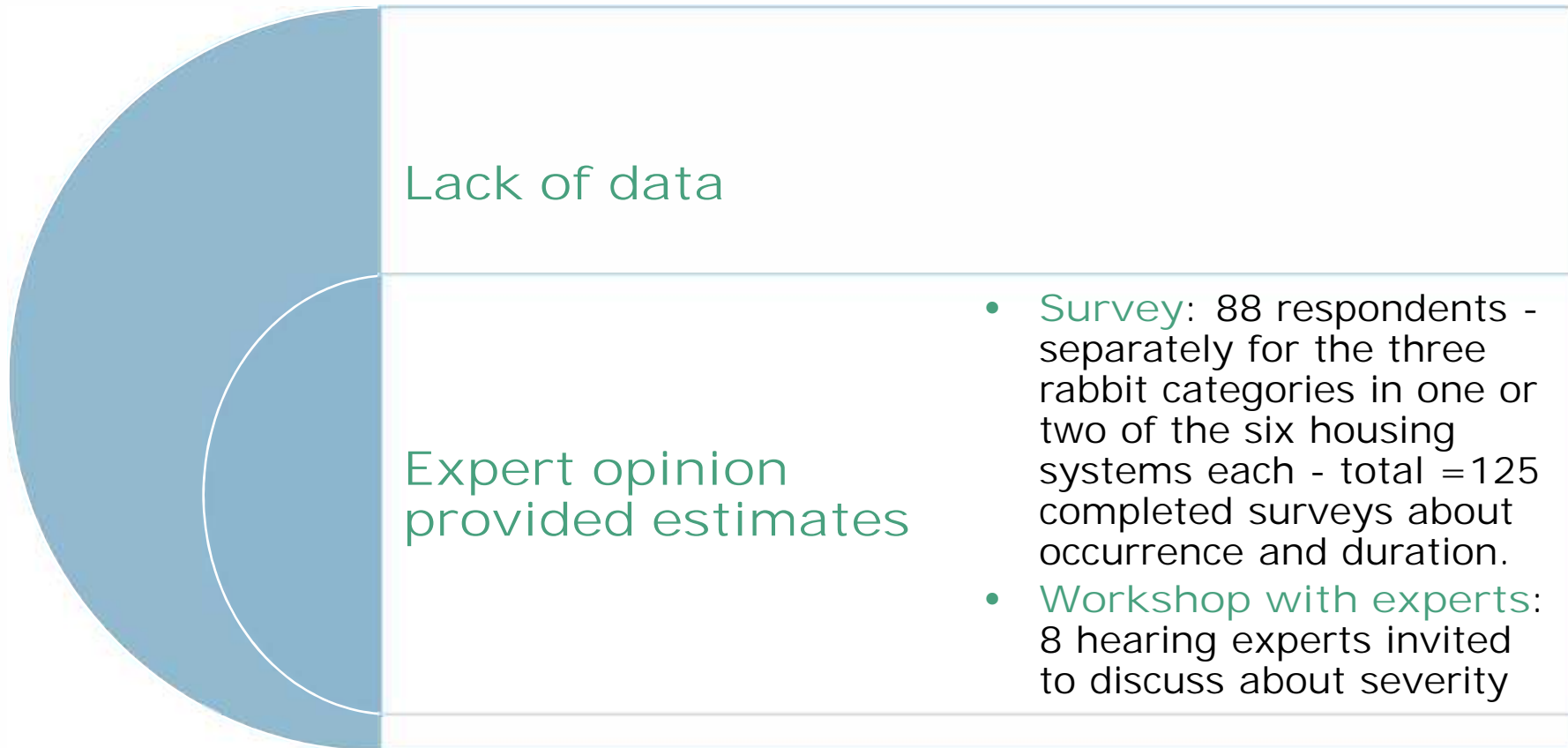
PODODERMATITIS



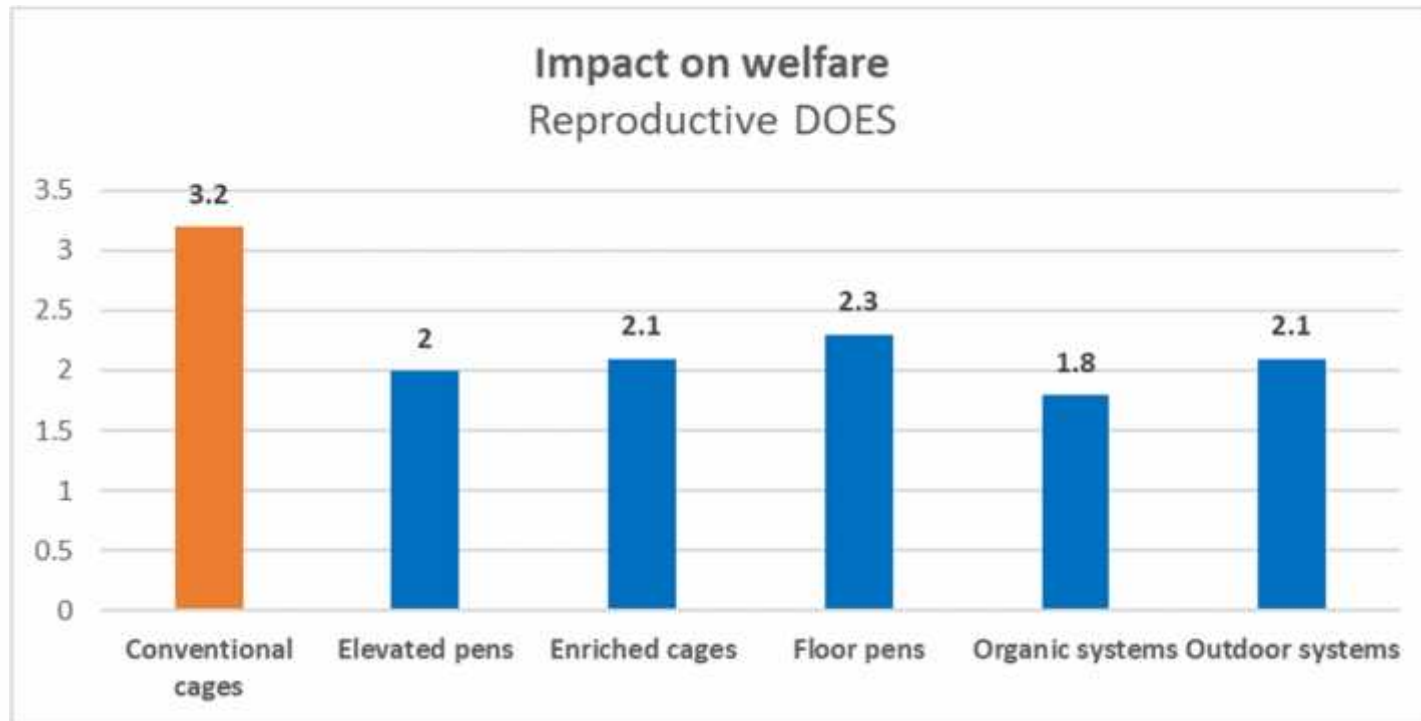
PROLONGED
HUNGER

Step 4: measuring impact

IMPACT ON WELFARE = OCCURRENCE x DURATION x SEVERITY



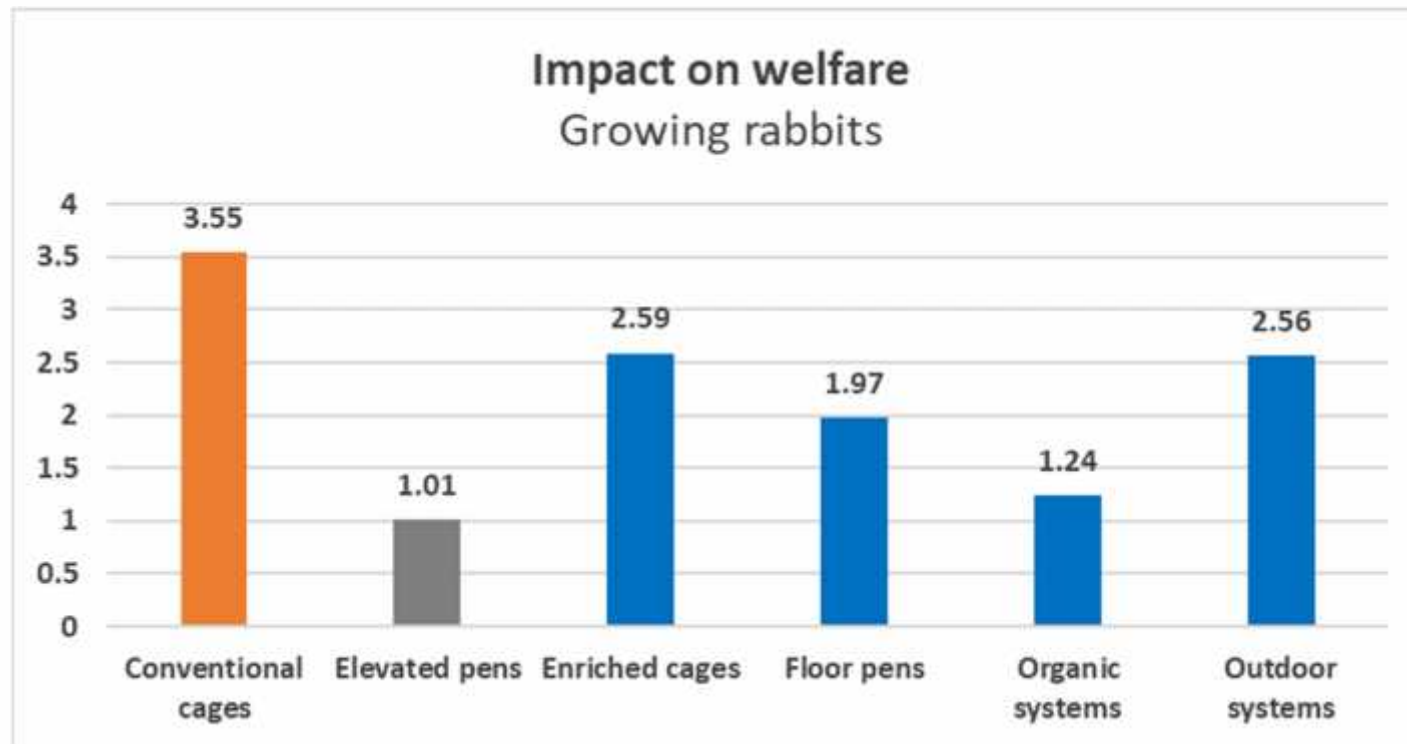
Comparison of welfare in 6 housing systems: reproducing does



CONCLUSION:

The welfare of DOES is lower in conventional cages, but no distinction can be made among the five other housing systems.

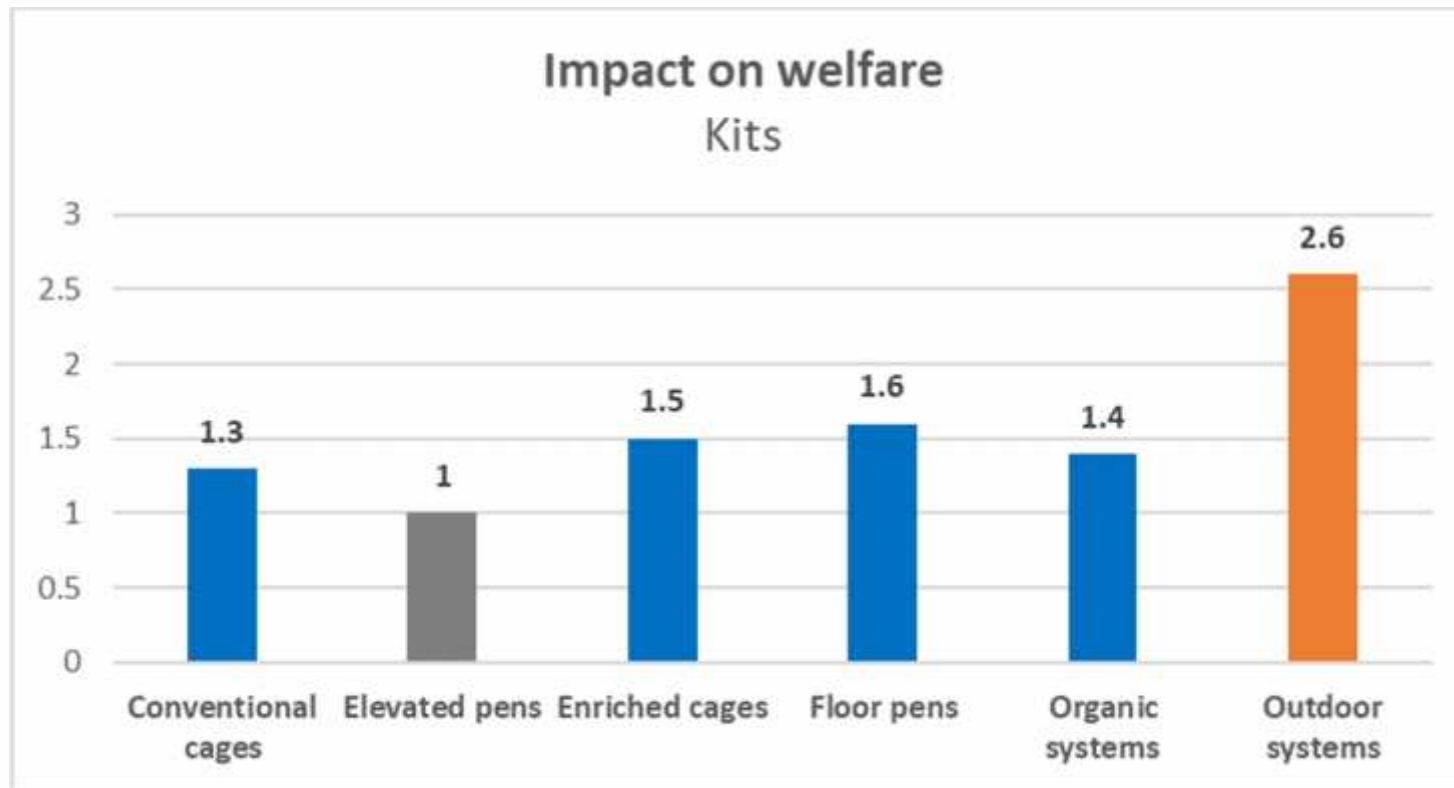
Comparison of welfare in 6 housing systems: growing rabbits



CONCLUSION:

The welfare of GROWING RABBITS is lower in conventional cages, and higher in elevated pens.

Comparison of welfare in 6 housing systems: kits



CONCLUSION:

The welfare of kits is lower in outdoor systems and higher in the elevated pens.



Main welfare consequences (does)

Restriction of movement
(if limited access to outdoor)

Heat stress

Reproductive disorders

Resting Problem

Skin lesions

CONCLUSION

Diversity of systems (EC Regulation 848/2018): difficult to make an overall assessment

Welfare scores obtained from the experts suggest welfare is generally good

RECOMMENDATIONS

- Reduce restriction of movement by enlarging the sheltered part of the housing
- Reduce heat and cold stress by insulating shelters or adding shade in the outdoor area
- improving management of housing hygiene, feeding strategy and daily checking of the animals
- Minimise fear in growing rabbits by use of proper electrified fencing or net top protection against predators)

Stunning methods and slaughter of rabbits for human consumption



Stunning methods + indicators of consciousness to monitor the stunning process



Hazards and corrective measures for all phases of slaughter:
Arrival-unloading-handling-lairage – stunning - bleeding

Arrival-unloading-handling- lairage



Arrival of the truck, courtesy: L. Berg



Handling and removing rabbits from containers, courtesy: Credit Avipôle Formation



Lairage zone, source: FIA



Reg (EC) 1099/2009:
protection of the animals at
the time of slaughter and
killing

Article 5: "Business operators should ensure that persons responsible for stunning carry out regular checks to ensure that the animals do not present any signs of consciousness between the end of the stunning process and death."

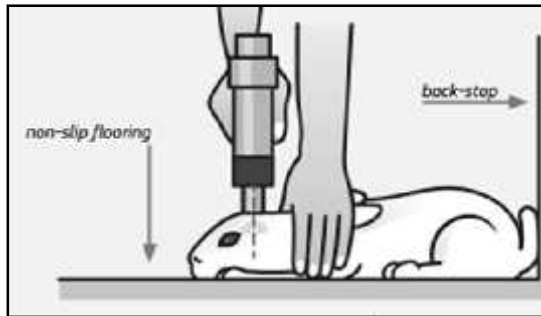
Stunning methods for rabbits

Electrical stunning methods (+restraint)

- Head-only electrical



Head-only electrical stunning



Captive bolt stunning

Mechanical stunning methods (+ restraint):

- Penetrative Captive bolt
- Non-penetrative captive bolt
- Percussive blow to the head

RECOMMENDATIONS

A set of indicators (corneal reflex, breathing, tonic-clonic seizures) should be used to detect the rabbits that are not properly stunned or recover consciousness after stunning.

If animals show signs of consciousness, intervention needs to be applied i.e. re-stunning of the animals.

THANK
YOU

Stay connected



Subscribe to

efsa.europa.eu/en/news/newsletters
efsa.europa.eu/en/rss



Follow us on Twitter

[@efsa_eu](https://twitter.com/efsa_eu)
[@plants_efsa](https://twitter.com/plants_efsa)
[@methods_efsa](https://twitter.com/methods_efsa)
[@animals_efsa](https://twitter.com/animals_efsa)



Follow us Linked in
[Linkedin.com/company/efsa](https://www.linkedin.com/company/efsa)

Back-up slides

MAIN WELFARE CONSEQUENCES

CONVENTIONAL CAGES

- Restriction of movement
- Inability to express gnawing behaviour
- Resting problem
- Inability to express positive social behaviour
- Heat stress

RECOMMENDATIONS ABOUT CONVENTIONAL CAGES FOR DOES:

- Increase the size of the cages or add platforms that allow for efficient use of the cage (this means shift to enriched cages).
- Plastic foot mats to be provided; cage floors and plastic mats to be cleaned regularly.
- Thermal stress to be minimized by appropriate ventilation.
- Suitable gnawing materials (e.g. wooden sticks) to be supplied

MAIN WELFARE CONSEQUENCES

CONVENTIONAL CAGES

- Restriction of movement
- Inability to express gnawing behaviour
- Resting problem
- Inability to express positive social behaviour
- Prolonged hunger

Recommendations about conventional cages for growing rabbits:

- Resting problems and restriction of movement to be prevented by reducing stocking density

MAIN WELFARE CONSEQUENCES

ELEVATED PENS

- Skin disorders
- Resting problem
- Inability to express gnawing behaviour
- Fear

Recommendations about elevated pens:

- Skin disorders are avoided by proper biosecurity, climate control and positioning of the drinkers so that wetting of the fur is prevented
- Gastrointestinal disorders minimized by balanced diet
- Fear reduced by avoiding rough handling

MAIN WELFARE CONSEQUENCES

OUTDOOR SYSTEMS

- Heat stress
- Prolonged hunger
- Neonatal disorders
- Cold stress
- Gastrointestinal disorders

Recommendations about outdoor systems for kits

- For heat stress, use supplementary heaters or fans, apply correct management of the nest.
- Gastrointestinal disorders prevented by balanced diet and appropriate weaning age.

MAIN WELFARE CONSEQUENCES

ELEVATED
PENS

- Inability to express gnawing behaviour
- Prolonged hunger
- Neonatal disorders
- Fear
- Skin disorders

Recommendations about elevated pens

- Provide suitable gnawing materials for kits
- Fearfulness reduced by avoiding rough handling and situations leading to aggression in does.
- Correct design of the nest box to only allow kits access to the main cage when sufficiently mature.

Lack of data

Expert opinion provided estimates

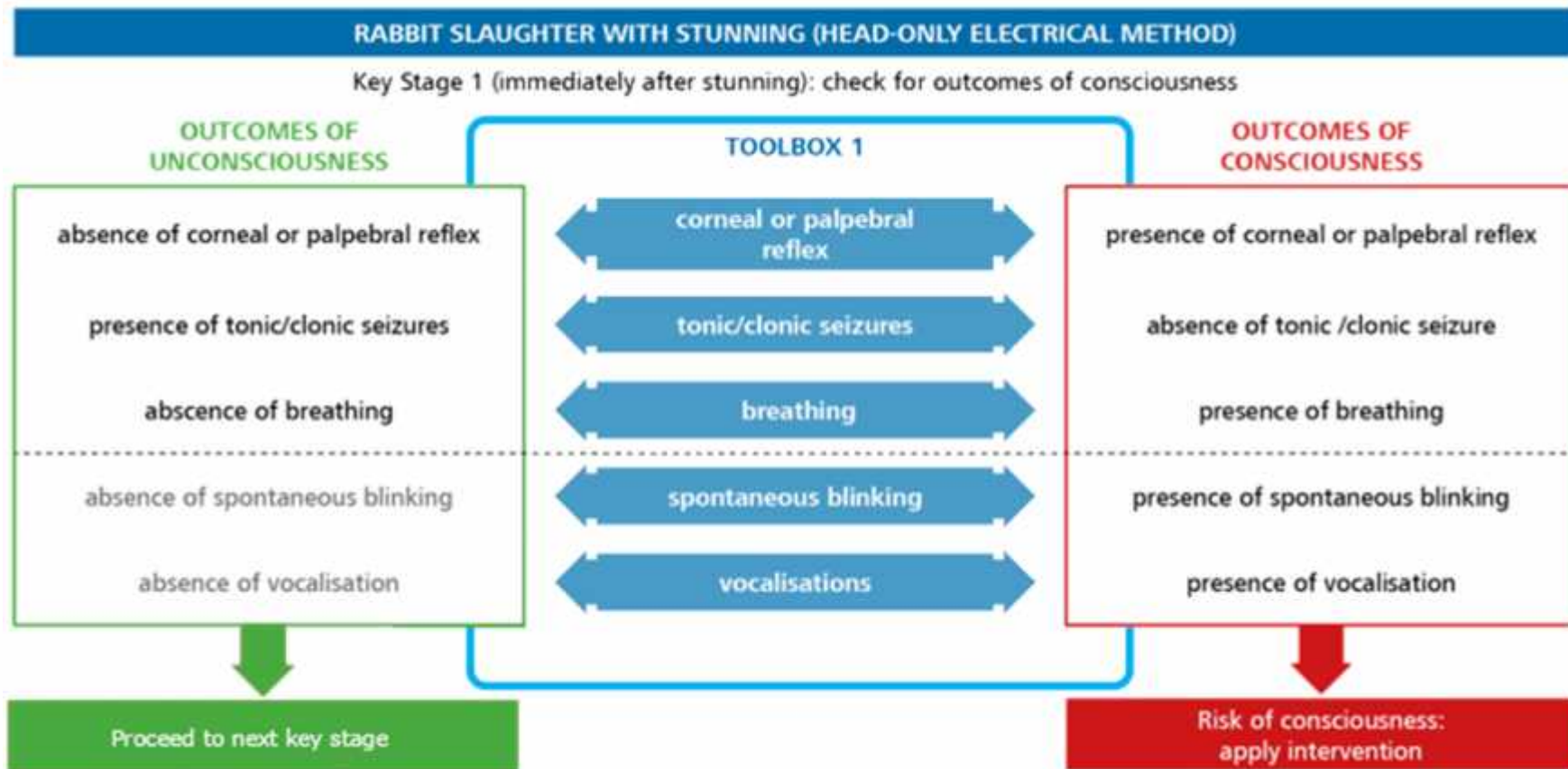
- Survey: 20 respondents - separately for the two stunning methods (electrical and captive bolt) - total = 40 completed surveys about sensitivity and specificity.
- Workshop with experts: 8 hearing experts invited to discuss about for easiness of use



Scientific opinion on the killing for purposes other than slaughter: rabbits

Definition of the scenario

- On-farm large scale killings in case of depopulation for disease control purposes and similar situations (environmental contamination, disaster management, etc.).
- On-farm killing of unproductive animals; for health, welfare or economic reasons
 - large-scale killing of unproductive rabbits (e.g. kits);
 - individual killing of unproductive, unhealthy or injured rabbits.



RECOMMENDATION

The state of consciousness of the animals should be checked at each of the 3 key stages - i.e. immediately after stunning, just prior to neck cutting and during bleeding - using the suggested indicators.