

# Future meat inspection - possibilities to consider

**Lis Alban**

DVM, PhD., DipECVPH

Chief scientist, Danish Agriculture & Food Council

Adjunct professor, University of Copenhagen

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**RIBMINS**



# Danish Agriculture & Food Council



**Represents the farming and food industries of Denmark**

- Including companies, trade and farmers' associations

**Agriculture and food is Denmark's largest competence cluster**

- Employing some 186,000 people
- Exporting agricultural products, food and equipment to an annual value of around € 20 billion

**DAFC established in June 2009 through a merger of:**

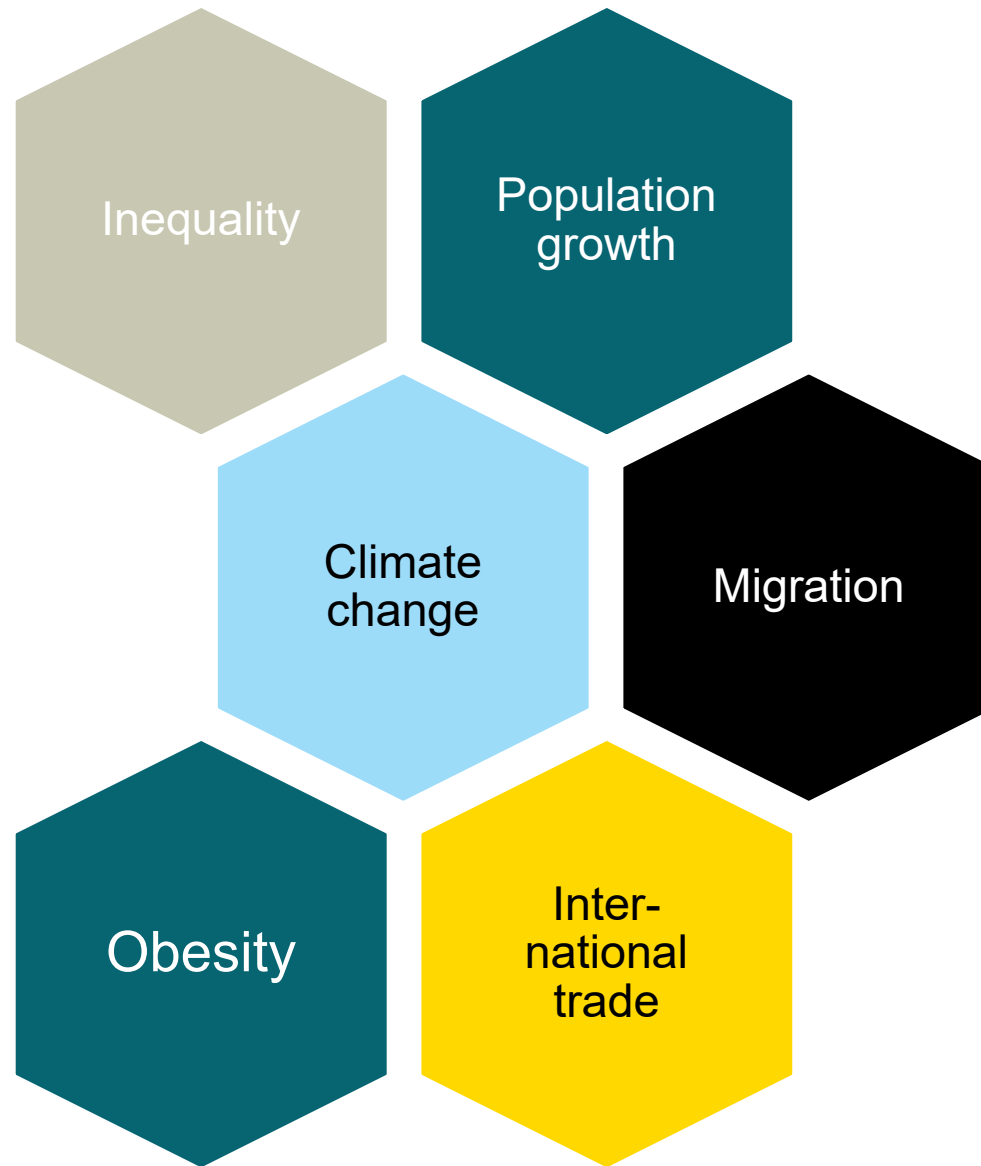
- The Danish Agricultural Council
- The Danish Bacon & Meat Council
- Danish Pig Production
- Danish Agriculture
- The Danish Agricultural Advisory Service
- The Danish Dairy Federation (partly)



Many members today

## Challenge

These issues are  
of concern  
globally



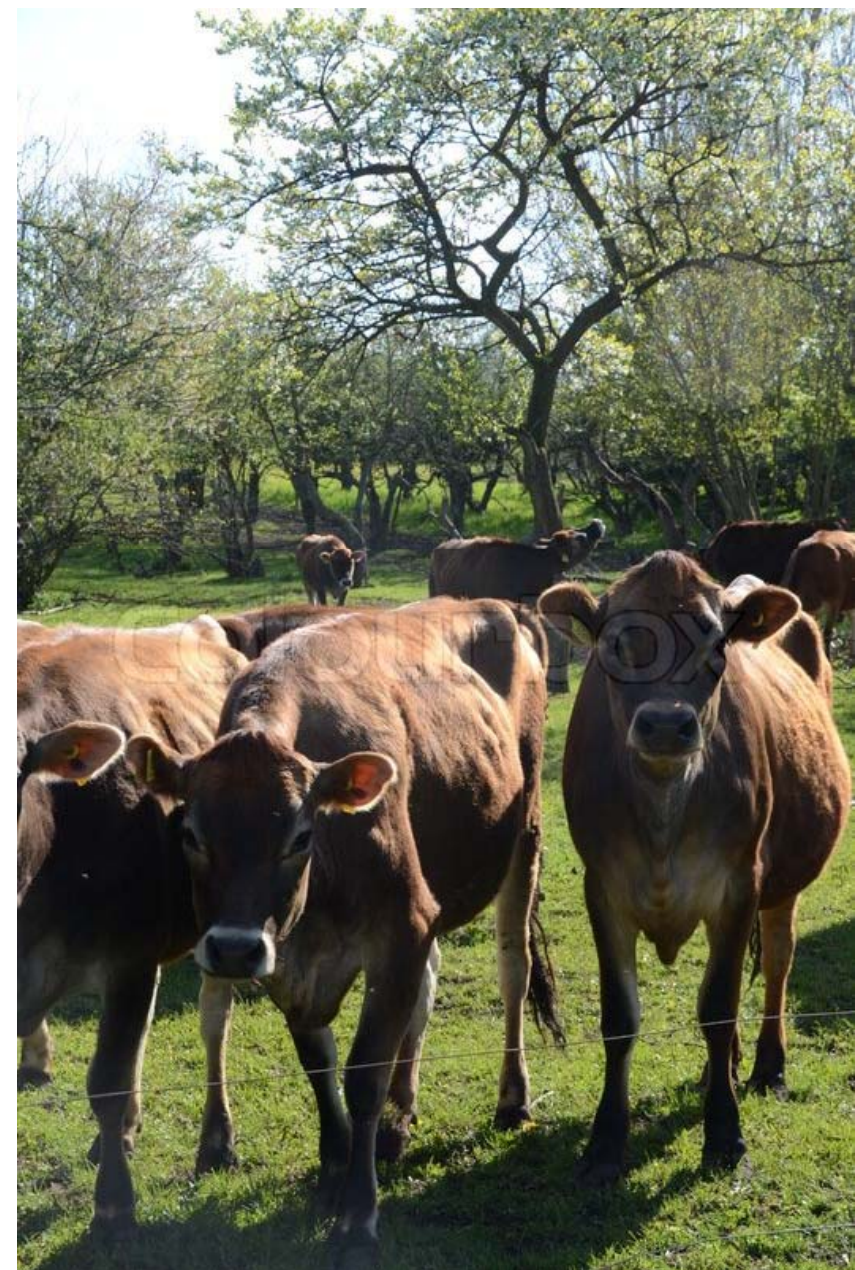


# Livelihood in agriculture basis for stable societies

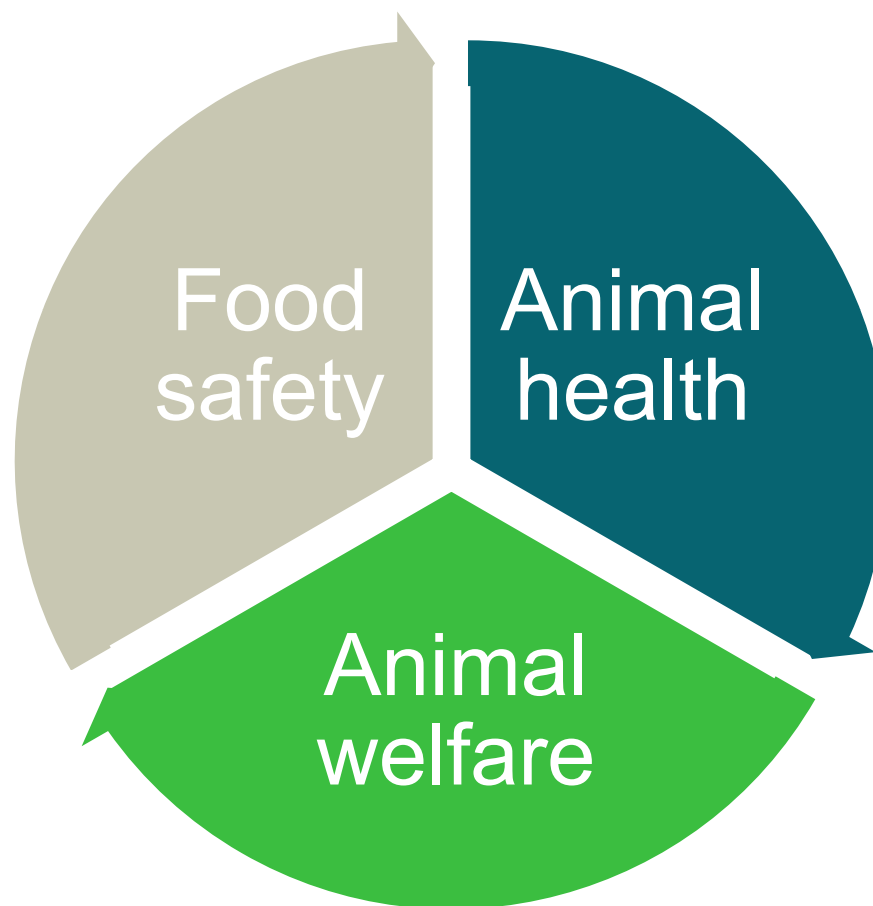
## Agriculture provides jobs

- Also for people with low level of education
- Income secures families living in rural areas
- Enables production of healthy food at a price consumers can pay
- Should be produced in a sustainable way
  - with a focus on climatic impact

## Livestock producers are one part of agriculture



**Aim of meat inspection is to secure....**



**Noget at leve af. Noget at leve for.**



# EU General Food Law and recent legislative updates

## General recommendations from the General Food Law

- Inspection should be targeted to the risks to humans and animals
- A stable-to-table view should be applied
- Food Business Operator should take responsibility

## New legislation in place

- Allowing less physical handling and more use of risk-based principles
- Still, the legislation is very prescriptive and not that flexible
  - The risk-based approach could be further exploited

Noget at leve af. Noget at leve for.



# The wish list of the Danish livestock industry

## Further modernisation is needed

- So, inspection reflects the risk
- But improvements in one area must not be at the expense of another area

Noget at leve af. Noget at leve for.





## Danish Agriculture & Food Council's vision

### Compared to today, the inspection in 2030 is

- Cheaper or creates more value for the industry and the producers
- Competitiveness is maintained or improved
- Access to markets is maintained or enlarged
- Food safety, animal health and animal welfare continue to be on a sufficiently high level and will not be compromised





## Focus areas



Better use of  
resources



Cheaper  
production  
costs



Smarter  
control



## Better use of resources

### From stable to table

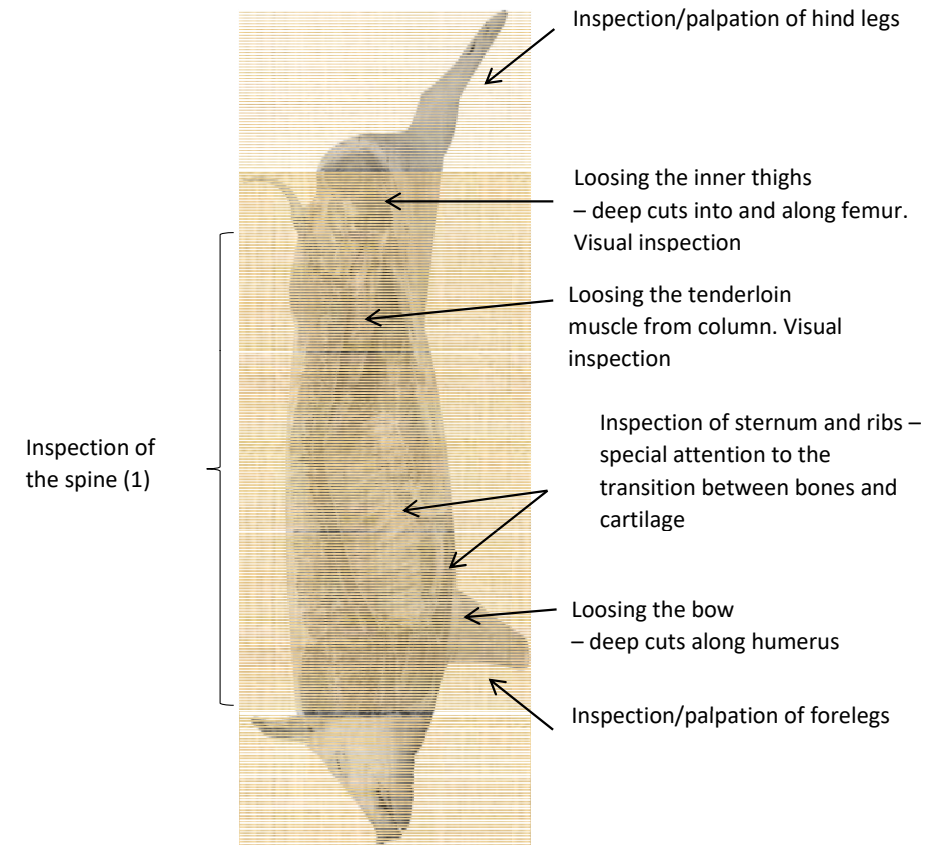
- Base judgement of real food safety impact to limit condemnation, waste production and food loss

### Example

- Lesion on a carcass or organs indicating pyaemia
- Current EU legislation is unclear about which kind of handling is needed

### In Denmark, judgement is been based upon whether a case is chronic or acute

- Extensive scientific work undertaken to assess food safety impact
- Has led to update of legislation: in swine, de-boning can be replaced by targeted inspection

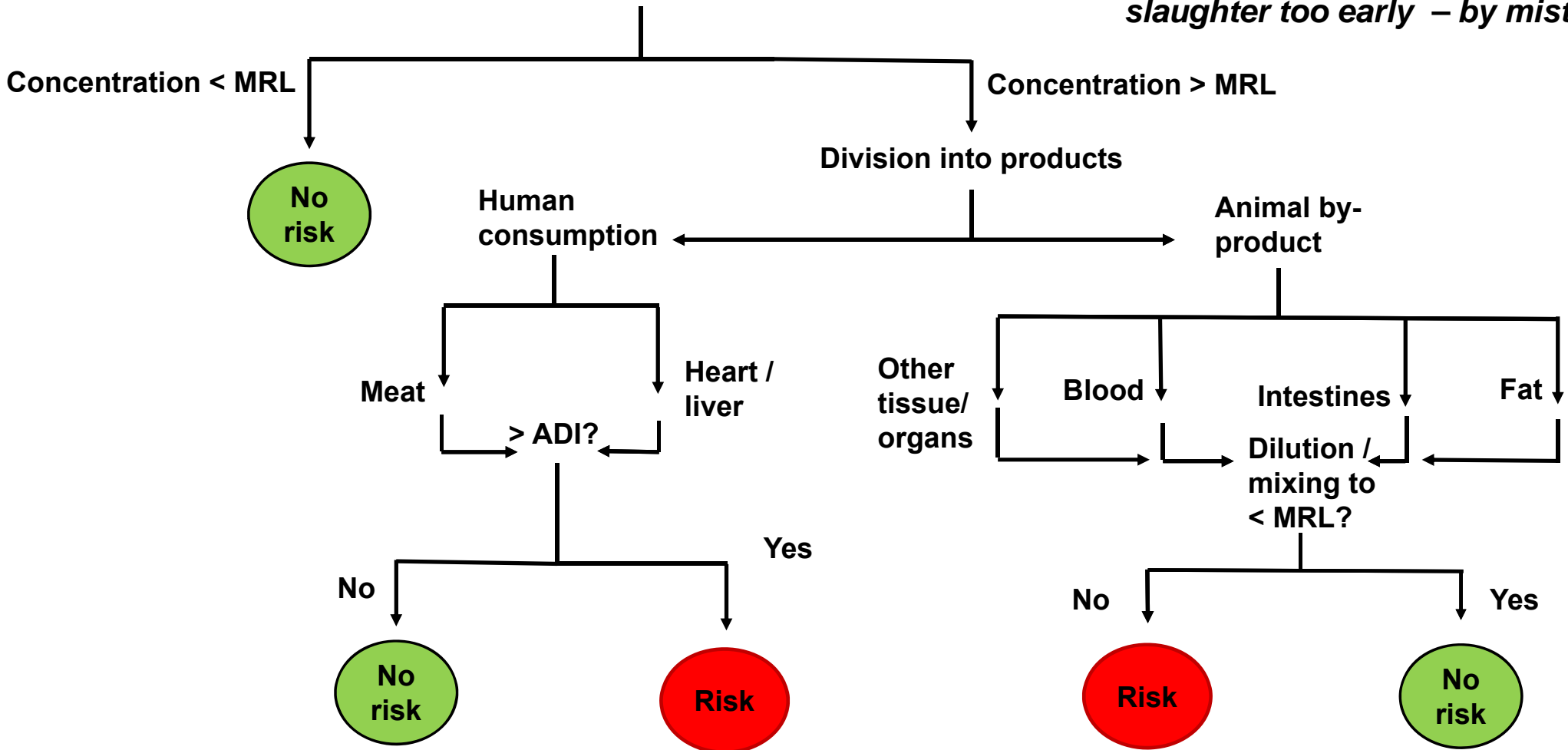


Extended inspection of carcass with lesions indicative of prior pyaemia

## Better use of resources - 2

*Suggested framework to use to identify proportional handling, when pig producer calls in regarding animals delivered to slaughter too early – by mistake*

Based upon information from producer, an estimate of concentration of antimicrobial is made



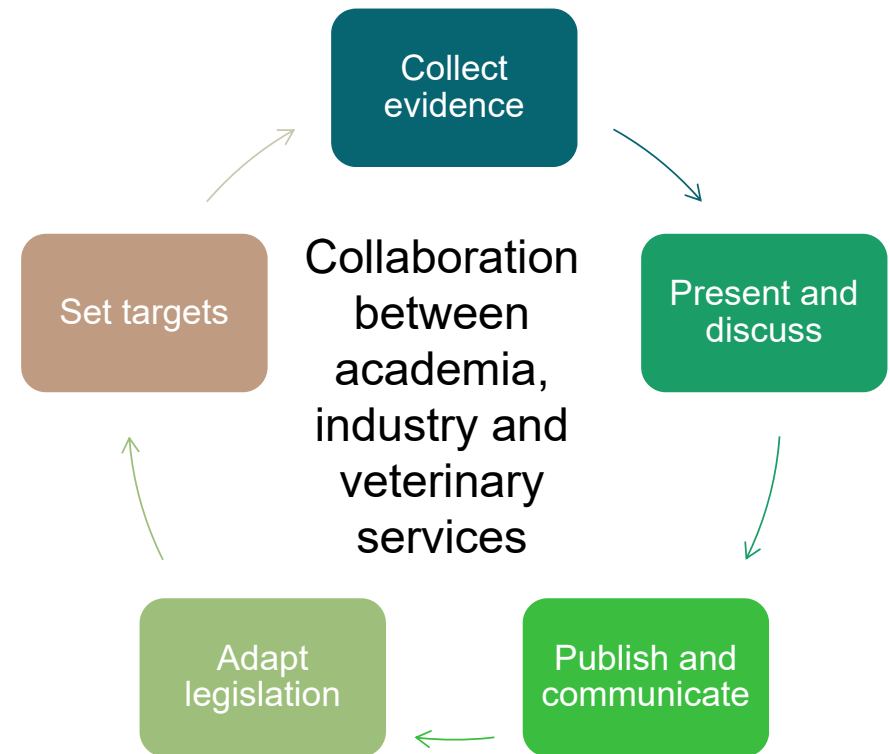
## Cheaper production costs

### Legislation in place to prevent unwanted events

- Sometimes new more effective ways can be identified, but these may not be allowed because of the legislation

### Suggestion

- Set goals for what the industry should comply with = outcome-based standards
  - Let the industry identify ways to comply
  - Will stimulate innovation
  - Contrary to input-based standards





## Cheaper production costs - 2

### Example

- Handling of category 2 animal byproducts,
  - Arising from pigs (or parts of such pigs) which have been accepted at ante mortem inspection
- Currently, EU requirement for pressure sterilisation
  - Our trials show that 90° C for 40 minutes would suffice - less energy used
  - Product could be used as feed for pets or fur animals
  - Or in biogas production supporting a sustainable energy production



## Cheaper production costs - 3

### Danish legislation prescribes:

- Pigs with hernia are not suitable for transport, if hernia is bigger than a handball at time of slaughter
- Due to animal welfare concerns

### Porchetta production?

- Slaughter 30-kg pigs with hernia
- Will reduce number of euthanised pigs and amount of food waste
- Will improve business for producers
- New way of inspection required?



## Smarter control

### Identify ways of more clever inspection

- Targeted/risk-based
  - Or use of bonus-/malus principle
- Auditing, when this makes sense
  - e.g. of biosecurity on-farm
- Use indicators instead of measuring directly on hazard
  - If this is cheaper or more feasible



## Smarter control - 2

### Use new technology

- Vision techniques e.g. for detection of fecal contamination of carcasses
  - Or prevalence of chronic pleurisy for residue surveillance
- Laboratory methods and ways of sampling
- Automatisations/digital solutions
- Track and trending – focus on process control
- Generic developed risk-based solutions for decision making e.g. findings of residues
- Use of blockchain technology
- Ressource-effective withdrawals from market based upon food safety risk





## Collaboration and communication

**To identify new solutions to the challenges, we need to collaborate**

- Across academia, industry and veterinary authorities

**And we need to communicate**

- Scientific and evidence-based approach
  - Using practical experience and historic data
- Publication in peer reviewed journals – when judged as relevant
  - Reaching the global scientific community
- Publication in popular journals - when judged as relevant
  - Reaching people working in meat inspection and the consumers

**Noget at leve af. Noget at leve for.**



# International acceptance

## Harmonization needed

- Many resources are currently spent on control required by trade partners
  - Although the risk may be negligible – e.g. *Trichinella* in indoor pigs

## Full harmonization not needed – acceptance of equivalence will suffice

- Communication of scientific work, incorporating practical experience and showing feasible and effective solutions will pave the way to harmonization



## Summing up

**A clear focus on cost-effective control is needed to ensure the continued competitiveness of the livestock industry sector**

**Focus should be on**

- Better use of resources
- Cheaper production costs
- Smarter control

**Collaboration is needed**

- Across academia, industry and veterinary authorities
- Presentation of transparent, scientific and evidence-based solutions that are feasible and cost-effective in practice
- Will make it easier to obtain acceptance of equivalence by trade partners

## In DAFC, we work in teams

**The following persons are part of the team on meat inspection:**

- Anna Høgberg
- Annette Dresling
- Linda Jensen
- Stephanie Højgaard Mahrt
- Anne-Mette Olsen
- Jesper Valentin Petersen
- Maybritt Kiel Poulsen
- Marianne Sandberg
- Lis Alban

