



Danish animal health status and disease prevention, with focus on PEDV



Birgit Hendriksen
Head of Veterinary Control Office
Danish Veterinary and Food Administration



Agenda

- Danish livestock disease status and livestock statistics
- The Danish pig sector
- Preventive measures all ready taken
- The control scheme
- Surveillance and strategy for disease control – including "the yellow card initiative"
- Identified unanswered questions
- On going work



Danish livestock disease status

OIE Listed diseases

The following diseases do not occur in Denmark:

- **Foot and mouth disease** 1983
- **Vesicular stomatitis** (never recorded)
- **Swine vesicular disease** (never recorded)
- **Rinderpest** 1782
- **Peste des petits ruminants** (never recorded)
- **Contagious bovine pleuropneumonia** 1886
- **Lumpy skin disease** (never recorded)
- **Rift Valley fever** (never recorded)
- **Bluetongue** 2008 (BTV 8)
- **Sheep pox and goat pox** 1879
- **African horse sickness** (never recorded)
- **African swine fever** (never recorded)
- **Classical swine fever (hog cholera)** 1933
- **Highly pathogenic avian influenza (Fowl plague)** 2006
- **Low pathogenic avian influenza** 2013
- **Newcastle disease** 2005



Danish animal health status

Freedom from:

- Aujeszky's disease
 - Bovine brucellosis
 - Bovine tuberculosis
 - Enzootic bovine leukosis
 - Infectious bovine rhinotracheitis
 - Brucella melitensis
-
- BSE - "OIE Negligible BSE risk" 2011
 - Bovine Virus Diarrhea – eradication almost finalized



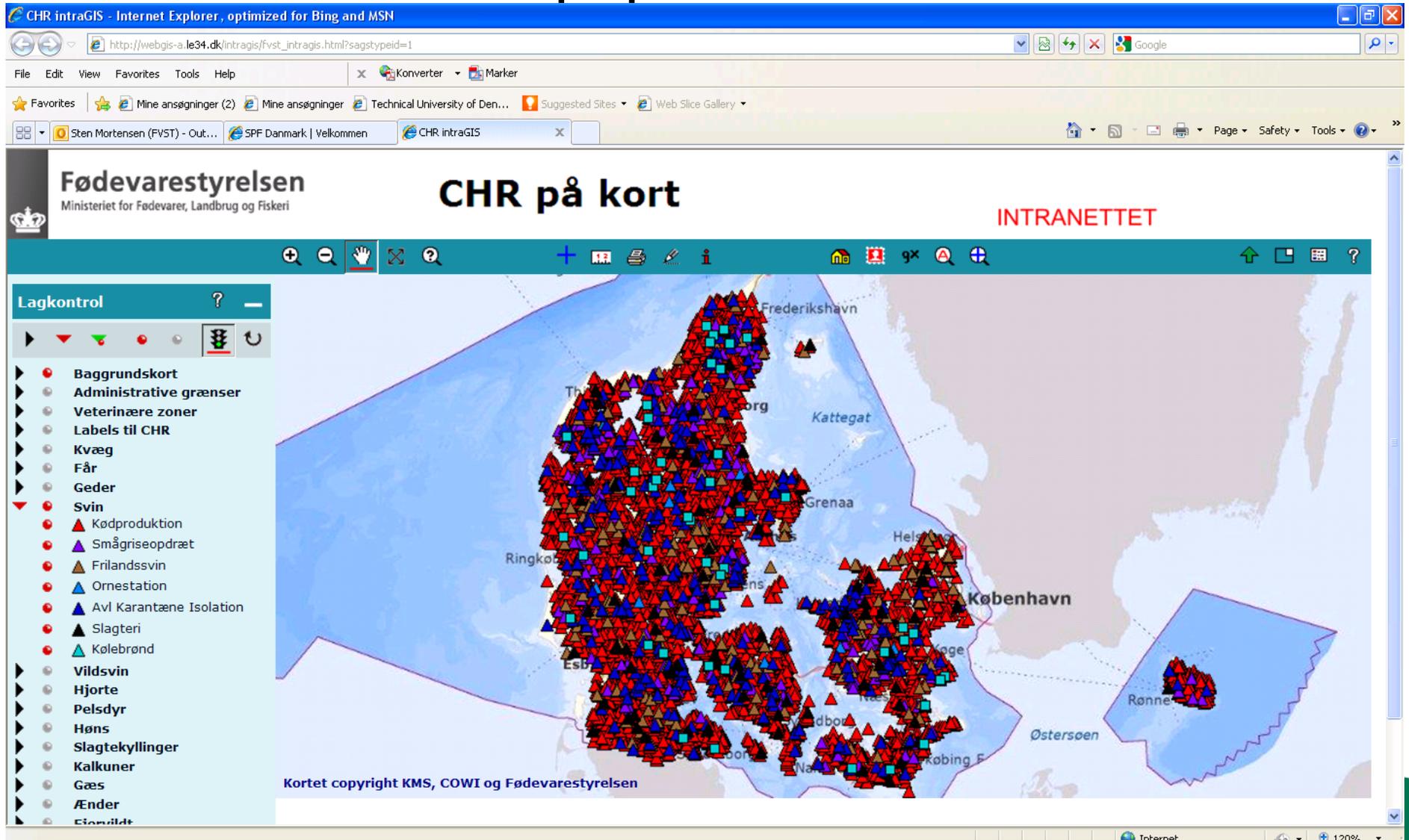
Livestock statistics, 2013

- Number of pig holdings: 8,732
- Number of animals: 13,280,931*
- Number of imported pigs: 82
- Number of exporter pigs: 10,267,659

*Total number of pigs produced pig pr year 29,1 mio



The swine population in Denmark





The pig sector

- 250 genetic farms (50 breeders, 200 multipliers)
- 3000 sow farms
- 6000 nursery or finisher farms
- 18,5 mio. pigs slaughtered pr year
- 20.000 truck-loads exported
 - 100.000 slaughter sows pr year
 - 200.000-400.000 slaughter pigs pr year
 - 9 mio. piglets exported pr year
 - 100.000 breeding animals

The SPF system in the Danish pig sector

Ministry of Food, Agriculture and Fisheries



- Red SPF holdings – breeding farms
- Blue SPF holdings – production farms
- Protection is based on tree pillars:
- Biosecurity – incl. rules for inspection order
- Animal health control
- Strict rules for transport of pigs between the holdings
- 264 holdings have status as red SPF
- 2752 holdings have status as blue SPF
- Rules are laid down by the stakeholders association, and control is divided between their own organisation and private vets.



The Danish Product Standard – the Danish swine industries own quality program

- The Danish Product Standard is founded on five key elements: Responsibility, Quality, Safety, Innovation and the Consumer.
- It includes all the elements in the production chain.
- The DANISH-Standard is the farmer's mark of assurance, confirming, that Danish legislation and the industry's own requirements have been fulfilled.
- The system is based on audits, at least every 3. year, from an independent certification body at herd level. Offences can be punished with fines.
- 99 % of Danish herds are enrolled



Animal transport vehicles (cloven hoofed animals) returning to Denmark

- Industry code of practice
- Compulsory washing and disinfection at the border
- 48 hour quarantine before access to a farm
- Certificate proving wash and disinfection must be displayed to the farmer when entering the farm



Preventive measures: 7- 30 day quarantine rules

Ministry of Food, Agriculture and Fisheries



- The quarantine rules are measures of disease control aiming at slowing down the turnover of animals between holdings in order to prevent the possible spread of disease.
- After introduction of new animals to a holding, no cloven hoofed animal must leave the holding until seven days after introduction of new animals.
- Cloven hoofed animals that are introduced to a holding must stay in the holding for at least 30 days prior to the next movement.
- There are general exemptions for these rules, such as movements of animals to slaughter.

Preventive measures:

Health advisory contract I Ministry of Food, Agriculture and Fisheries



- Holdings with more than 300 sows or 3000 slaughter swine or 6000 weaners are obliged to have a health advisory contract with a private veterinarians
- The contract can be basic or additional contract
- Holdings with a basic contract must have 2 annual advisory visits
- Holdings with an additional contract must have at least 9 annual advisory visits
- Report is drawn up after each visit – focus is on health and production data (incl. finding reasons for high mortality) use of antibiotic, diagnosis on herd level, guidance for treatment, animal welfare parameters



Preventive measures: Health advisory contract II

- Basic contract: the herd owner may not start medical treatment
- Additional contract: Medicine may be prescribed for use for treatment of diagnosed disease for up till 35 or 50 days, depending on herd type and the category the herd is placed in (ordinary, extra or intensified)
- Before flock treatment for respiratory or intestine diseases there need to be a laboratory investigation
- All holdings who have a health advisory contract must have on own control scheme on animal welfare, and the private veterinarian have to perform an audit
- All contracts must be reported to Vetreg (a database in DVFA)



Preventive measures: Biosecurity plans in large farms

- Large farms are herds with more than :
 - 2.200 sows with piglets
 - 18.000 fattening pigs

The plan must be approved by the DVFA but are going to be included in the health advisory contract system



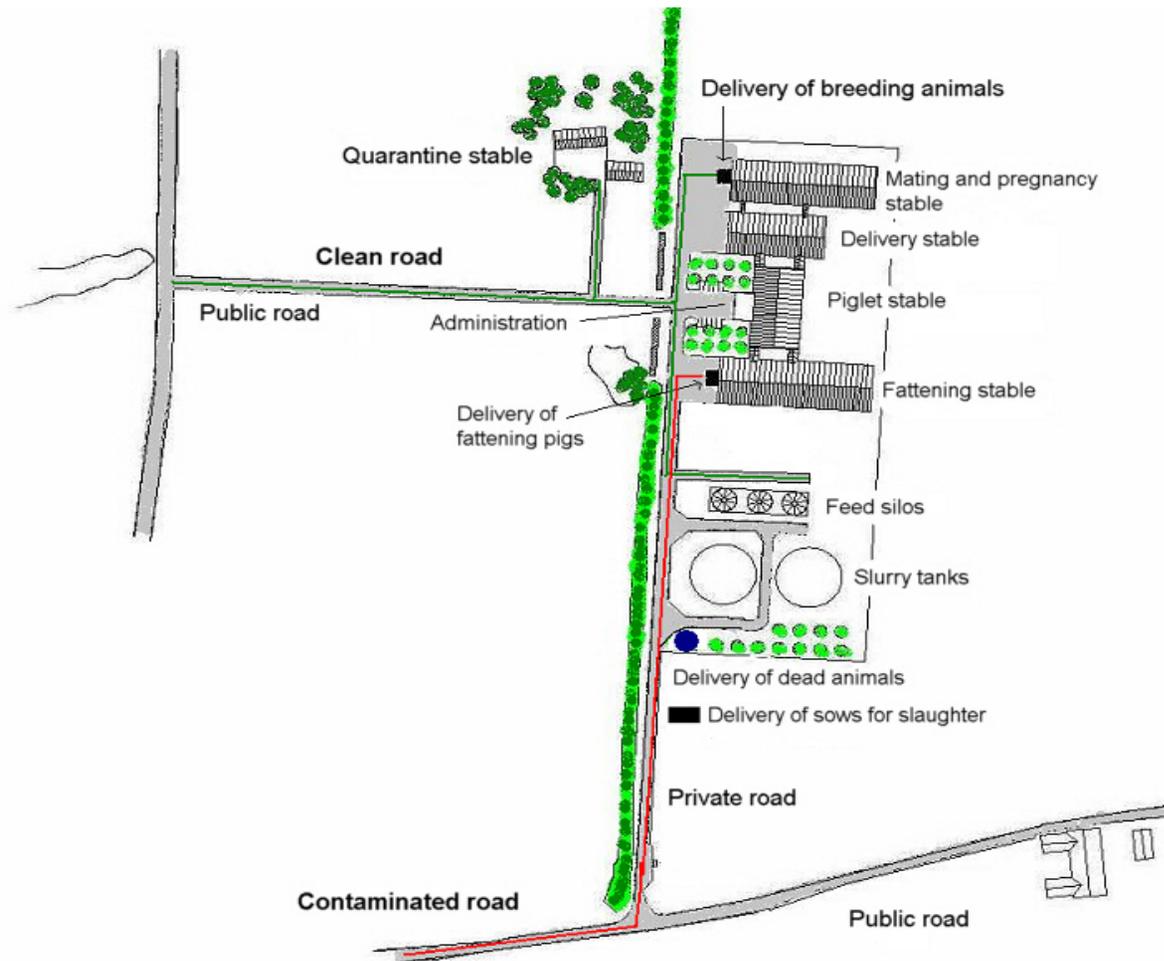


Biosecurity plans in large farms

- Definition of farm area
- Identification of potential risks (HACCP)
- Animals, feed, bedding, semen, medicine
- Slaughter pickup and dead animals
- Trucks and machines, tools
- Personnel
- Rodents, insects, birds
- Urine, manure, slurry
- Products

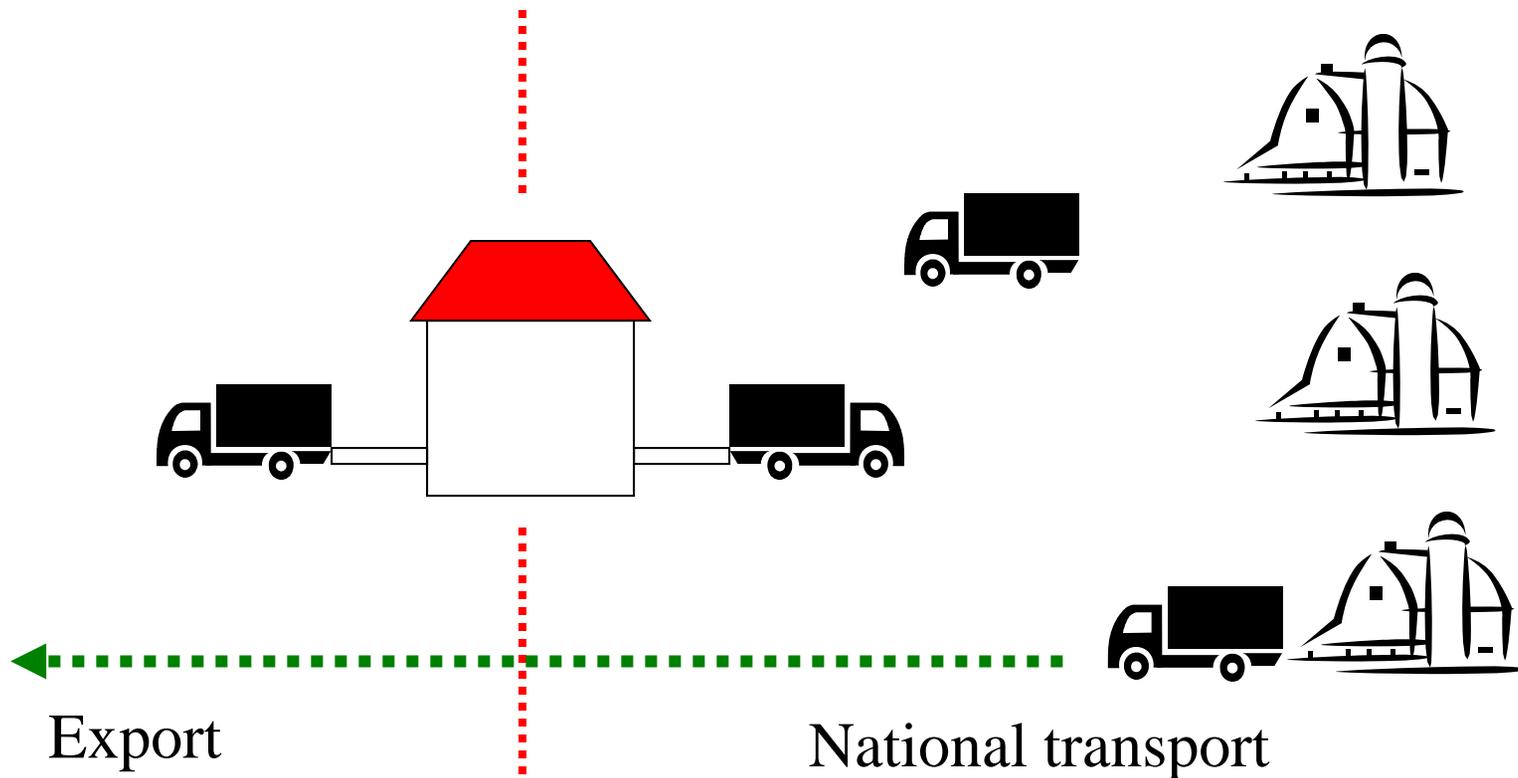


Biosecurity plans in large farms





Preventive measures: Precautions by exports – assembly centres



Export

National transport



Control from the DVFA

- The Danish Veterinary and Food Administration (DVFA) carries out a wide range of controls regarding animal health, animal welfare and control of feed manufactures – including rendering plants.
- Control activities at herd level include; control of medicine, animal health and animal welfare.
- In 2014 where 795 controls performed in holdings
- In 2014 where 100 controls performed on vehicles for export
- In addition animal welfare control is performed during transport at slaughterhouses and assembly centres.



Examples on parameters used to select herds for control:

- Pig herds with no movements recorded in the CHR
- Pig herds with recorded movements but the number of moved pigs does not match the number of animals present in the herd
- The number of pigs moved to assembly centres must match the number of animals moved from assembly centres
- Pig herds with recorded movements in cases public restrictions due suspicion or outbreak or suspicion of diseases
- The size of the herd
- Herds without health advisory contract
- Herds using one the 10 vets in Denmark, who prescripts most antibiotics
- Herds who uses broad- spectrum drugs
- Herds who have had sanctions before



Surveillance active and passive

- **Primary/passive e.g.:**
 - Notification
 - Inspection by veterinary authorities
 - Abattoirs, markets, assembly centres, direct exports at farm level and shows/fairs
- **Secondary/active e.g.:**
 - Serological and virological surveillance
 - Animals for slaughter, export, AI centres, or in farms
 - Targeted or random sampling



Notification duty

Laboratory



Danish Veterinary and Food Administration

Farmer



Private veterinary practitioner



Local Animal Health Units →
Central Veterinary Authorities



The Yellow Card Initiative





VetStat - data input

- All VMPs prescribed by veterinarians are registered
- Database at DVFA
- Full access for DVFA
- All prescriptions registered with:
 - **Date**
 - **VMP ID**
 - **VMP quantity prescribed ID**
 - **Herd ID**
 - **Animal species**
 - **Animal age group**
 - **Prescription/disease category**

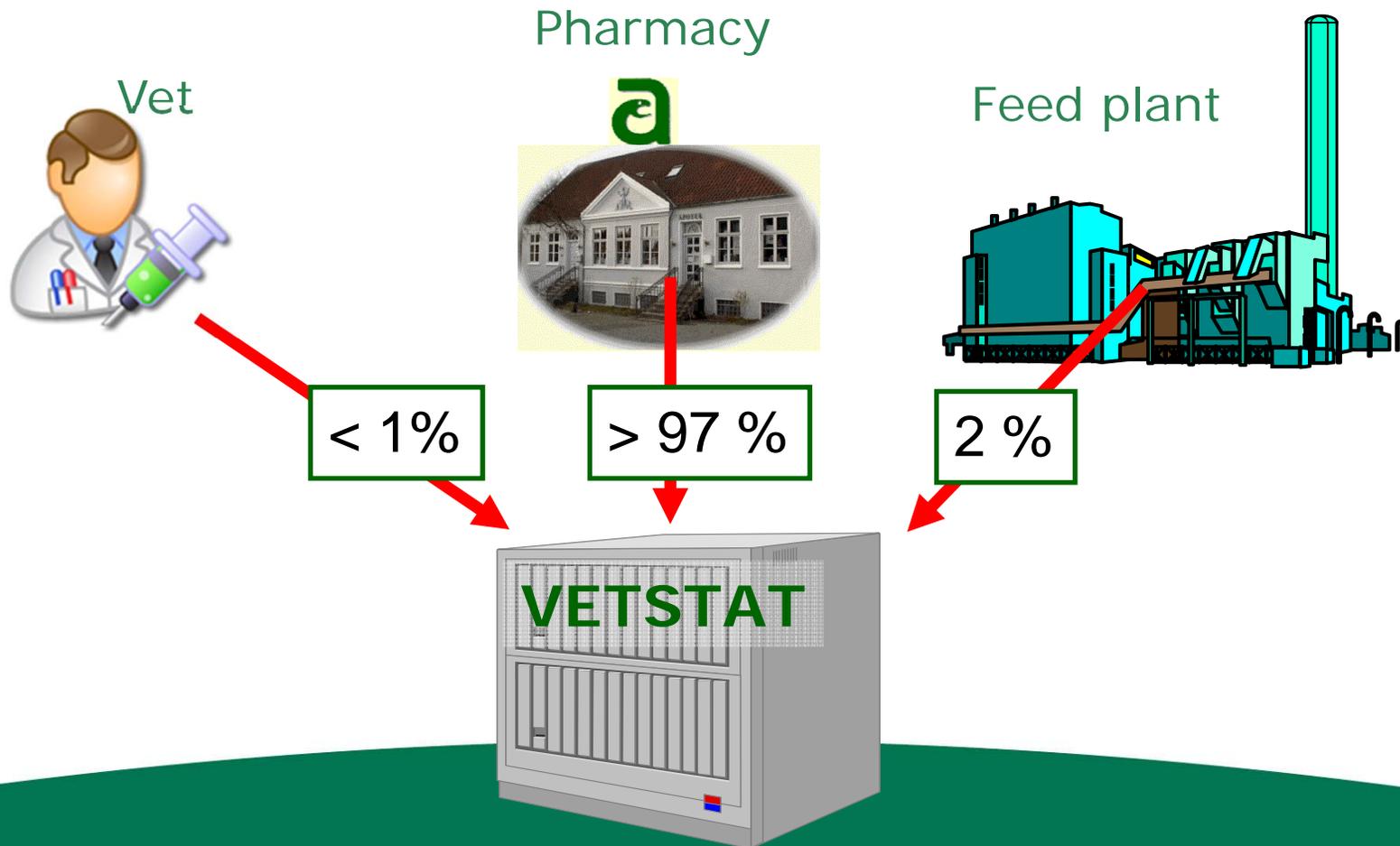


Use of Vetstat

- Monitoring use (and lack of use)
- Risk modelling
- Risk based control (aiming control by selection)
- Preparation of inspections
- Follow up – Effect of initiatives



VetStat – Pig Sector Consumption Veterinary Prescription Medicine Data Input





Central Husbandry Register Animal data input

Farmer

Slaughter houses

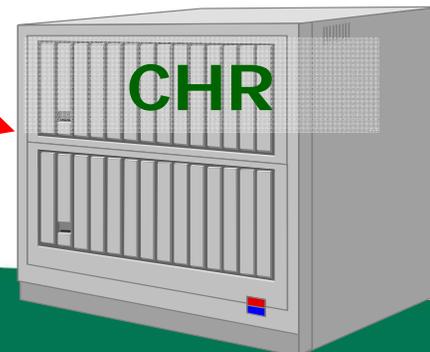
Markets

Export facilities



**Number of
animals**

CHR





The Yellow Card Initiative in short

Data:

- Amount of AM used on farm in a specific age group in ADD (from VetStat)
- Number of pig days for that specific animal group (from CHR)

The Yellow Card Level

- $\text{Consumpt.} = \frac{\text{Amount of AM Used}}{\text{Number of Pig Days}}$
- Based on 9 months average



The Threshold Levels

9 months rolling avg. (ADD/100 animals per day)	Finishers (30 – 120 kg)	Weaners (7 – 30 kg)	Sows (>120 kg)
National mean	4	14	2,6
Yellow Card Threshold	8	28	5,2

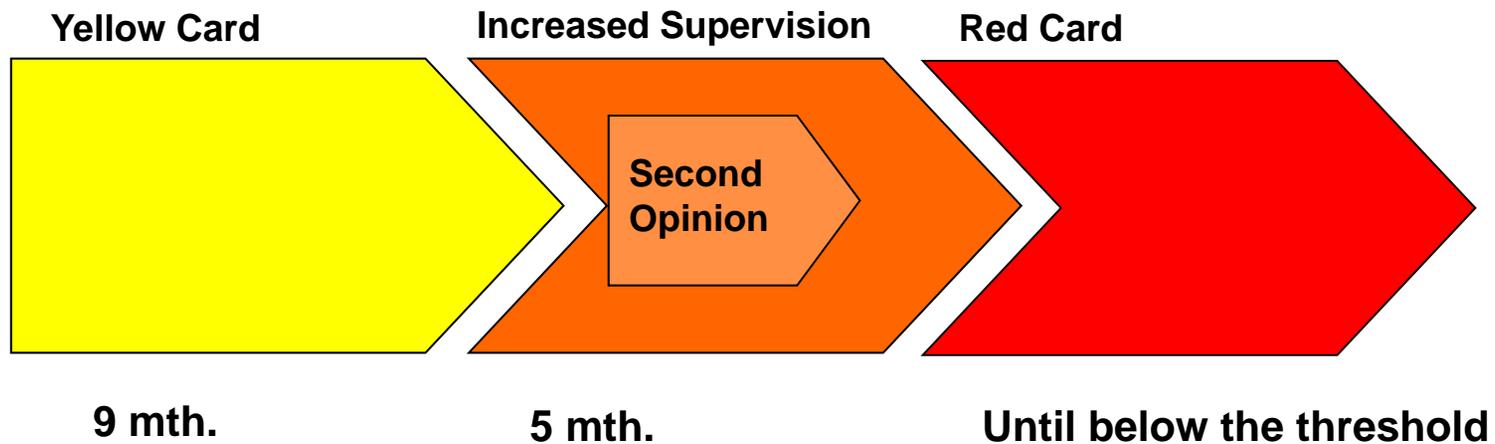
Targeting 5 – 10 % of all pig farms

A yellow card will release a control from DVFA



The Yellow Card – In Short!

- 2013: 33 holdings have got a yellow card, and 2 holdings got increased supervision.
- 2014: 27 holdings have got a yellow card
- No red cards has been issued





Identified risks for introduction, where we need more knowledge

- Blood products intended for consumption of animals, with focus on spray dried blood plasma from pig
- Other feeding stuffs
- Semen
- Spread of virus by the wind



Ongoing work

- The Danish Veterinary and Food Administration, the Danish Veterinary Institute and the Danish Agriculture & Food Council is cooperating on a risk analysis on feeding stuff for pigs – planned to be finished by the end of 2014.
- The Danish Veterinary and Food Administration is planning to do a survey for PEDV on samples all ready collected.

Thank you for your
attention

Ministry of Food, Agriculture and Fisheries

