

# Herd health and surveillance in Danish cattle herds

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# Content

- Organization of Danish cattle disease control programmes
- Control strategies
- Cattle disease and zoonoses programmes
- Other programmes
- Surveillance data collection
- Preparedness

# Danish cattle production

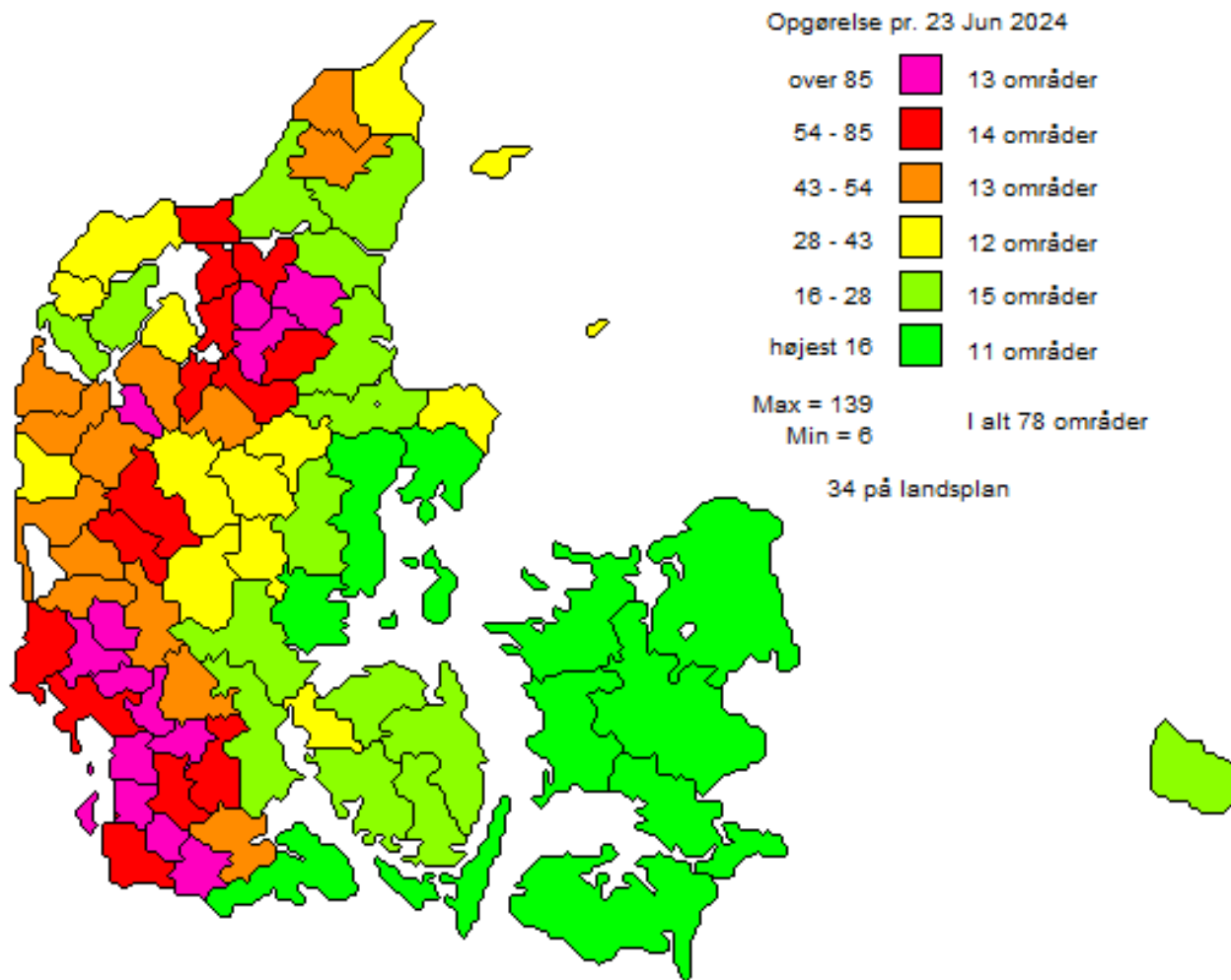
2,141 dairy herds

11,505 other types of herds (beef, slaughter calves, heifer herds)

## National stock Dec. 31<sup>st</sup> 2023

Cattle in total	1,434,872
Milking cows	546,830
Beef cows	66,155

# Cattle density in Denmark: Cattle per km<sup>2</sup>



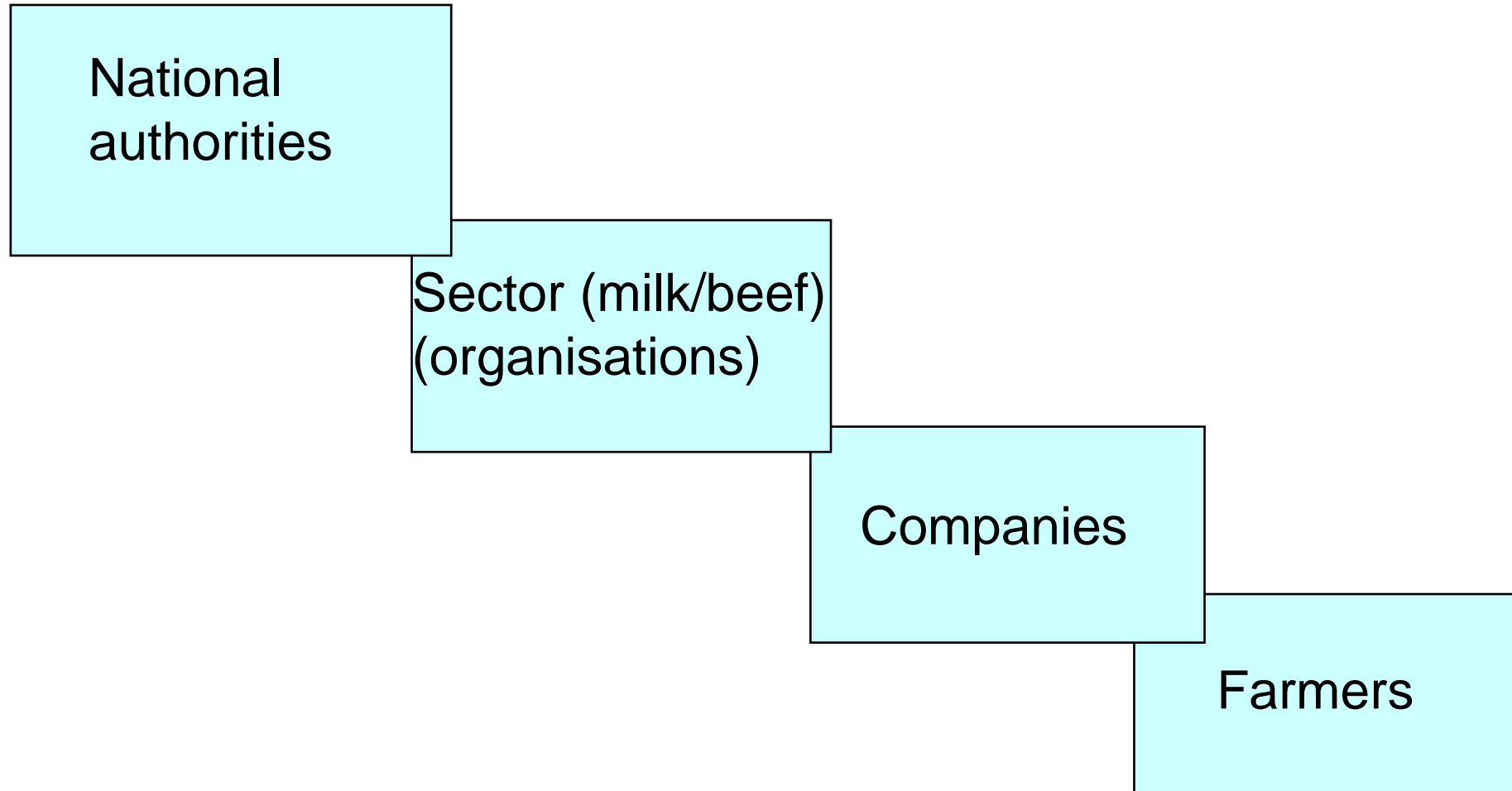
# General objectives of disease control and surveillance

- Ensure healthy and clean foods
- Ensure a healthy and sustainable livestock production in terms of good animal welfare
- Maintain the Danish veterinary level

# Priorities in animal disease control

- Important infections (FMD, tuberculosis)
- Food safety
- Less important infections (IBR, BVD, a.o.)
- Endemic and production diseases

# Chain of commitment for successful veterinary programmes



# Eradication of infectious diseases in Danish cattle – approach

1

- Screening
- Voluntary actions

2

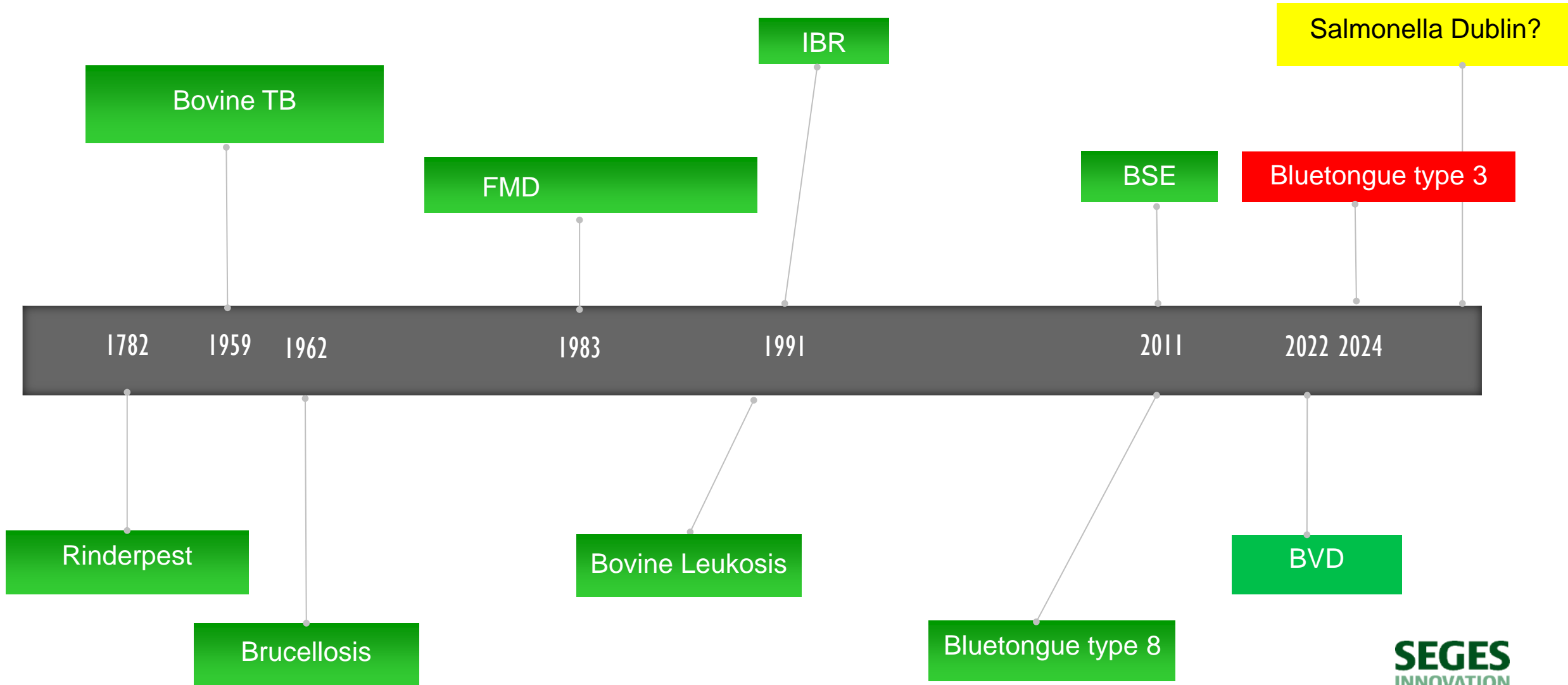
- Eradication
- Compulsory actions

3

- Surveillance
- Official restrictions for infected herds

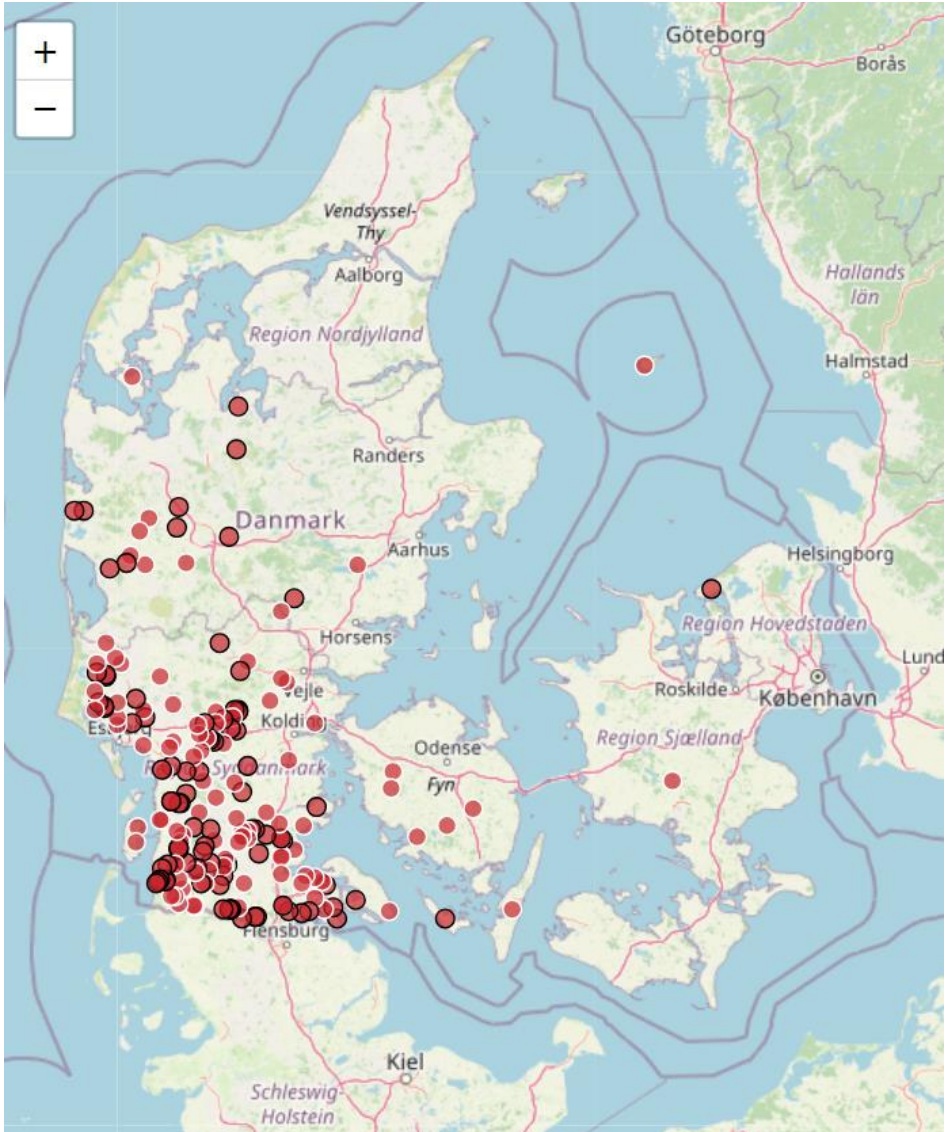
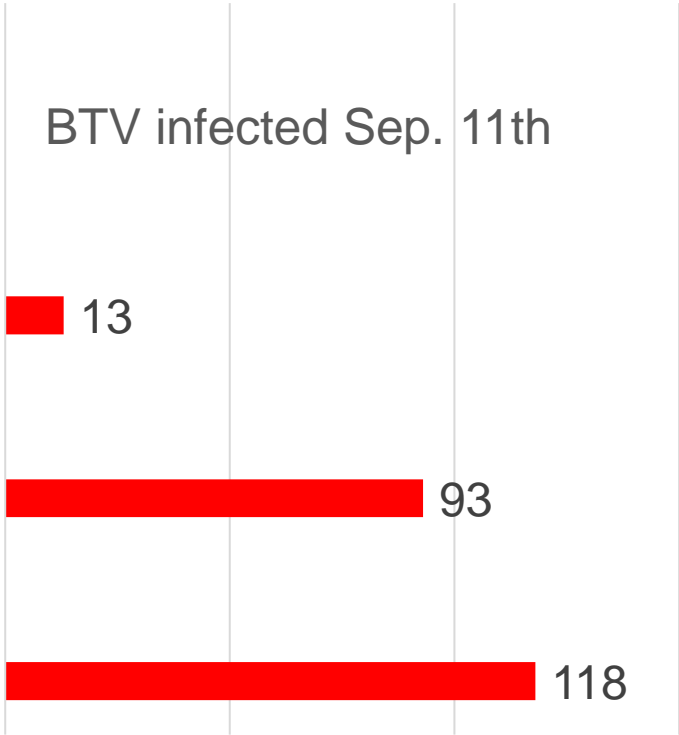


# Successful eradication programmes in the Danish cattle population



# Bluetongue type 3 in Denmark 2024

First case detected August 9th



# Basis of health and high veterinary status

Registration



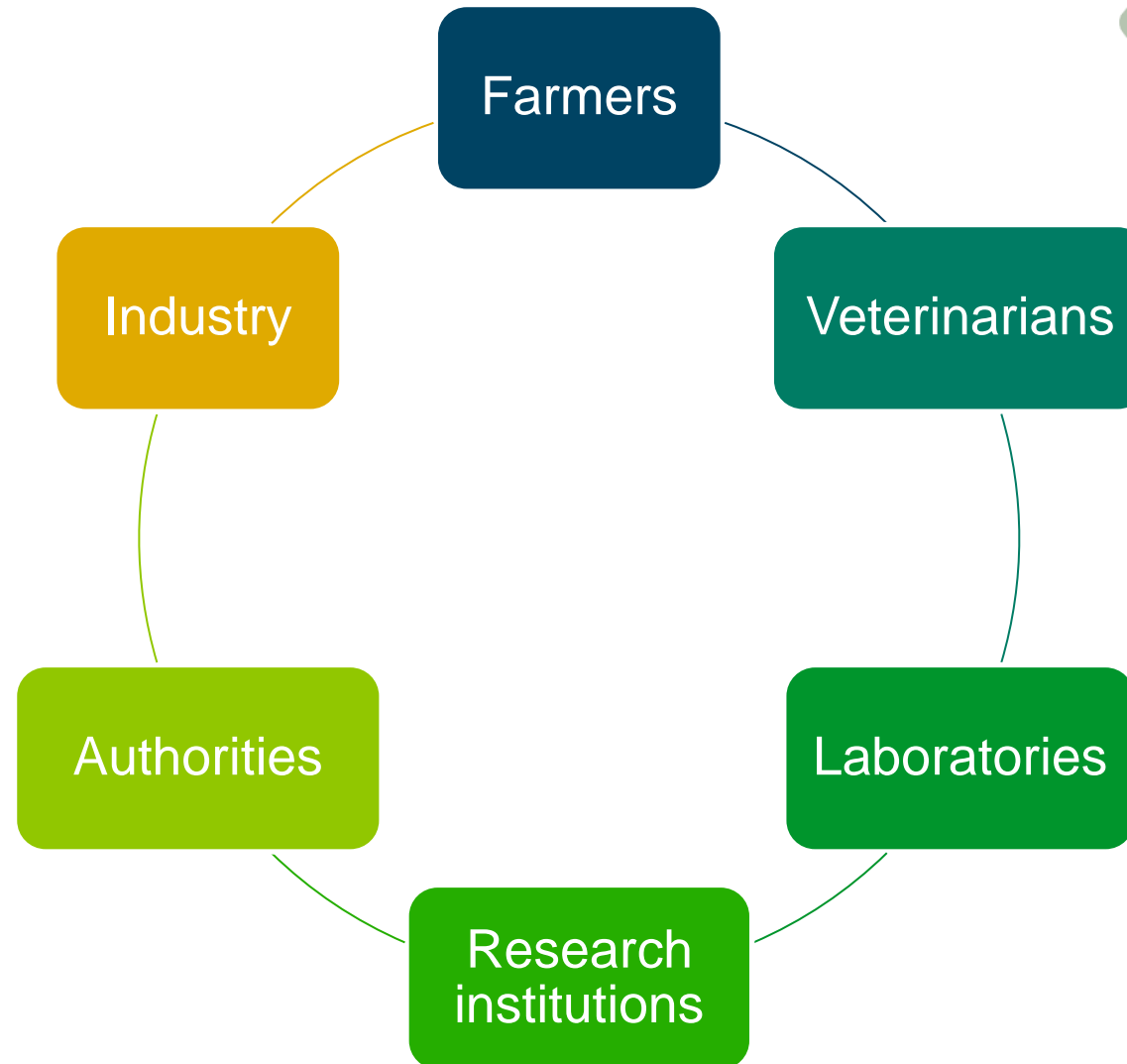
Identification

Recording of  
transfers

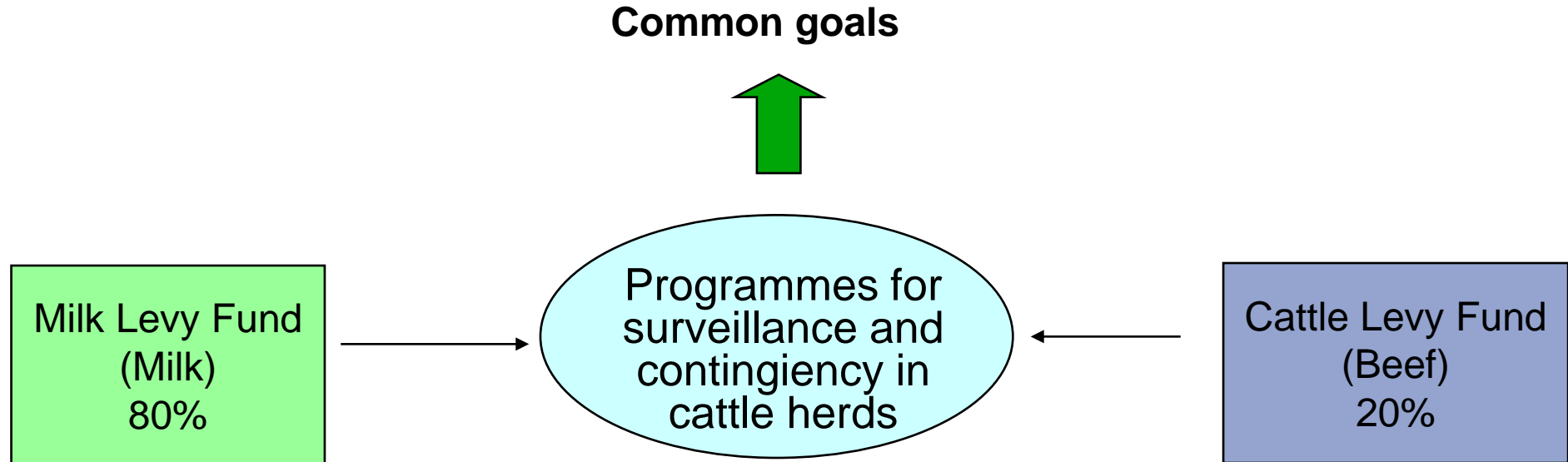
# Purpose of disease surveillance and control

- To carry out the surveillance for 'infectious bovine rhinotracheitis' (IBR), 'bovine virus diarrhoea' (BVD), Salmonella Dublin and Streptococcus agalactiae according to the Danish legislation
- Assure early detection of outbreaks of 'exotic' infectious cattle diseases
- Take care of the cattle industry's veterinary preparedness
- Take care of the cattle industry's preparedness concerning zoonoses

# SEGES' partners in disease control



# Financing common veterinary issues



# Veterinary surveillance programmes in Danish cattle herds

## SEGES

- Infectious Bovine Rhinotracheitis (IBR)
- Bovine Virus Diarrhea (BVD)
- Salmonella Dublin
- Streptococcus agalactia

## Danish Veterinary and Food Administration

- *Bluetongue*
- *BSE*
- *Bovine Tuberculosis*
- *Bovine Brucellosis*

# Other types of surveillance (SEGES)

## Other

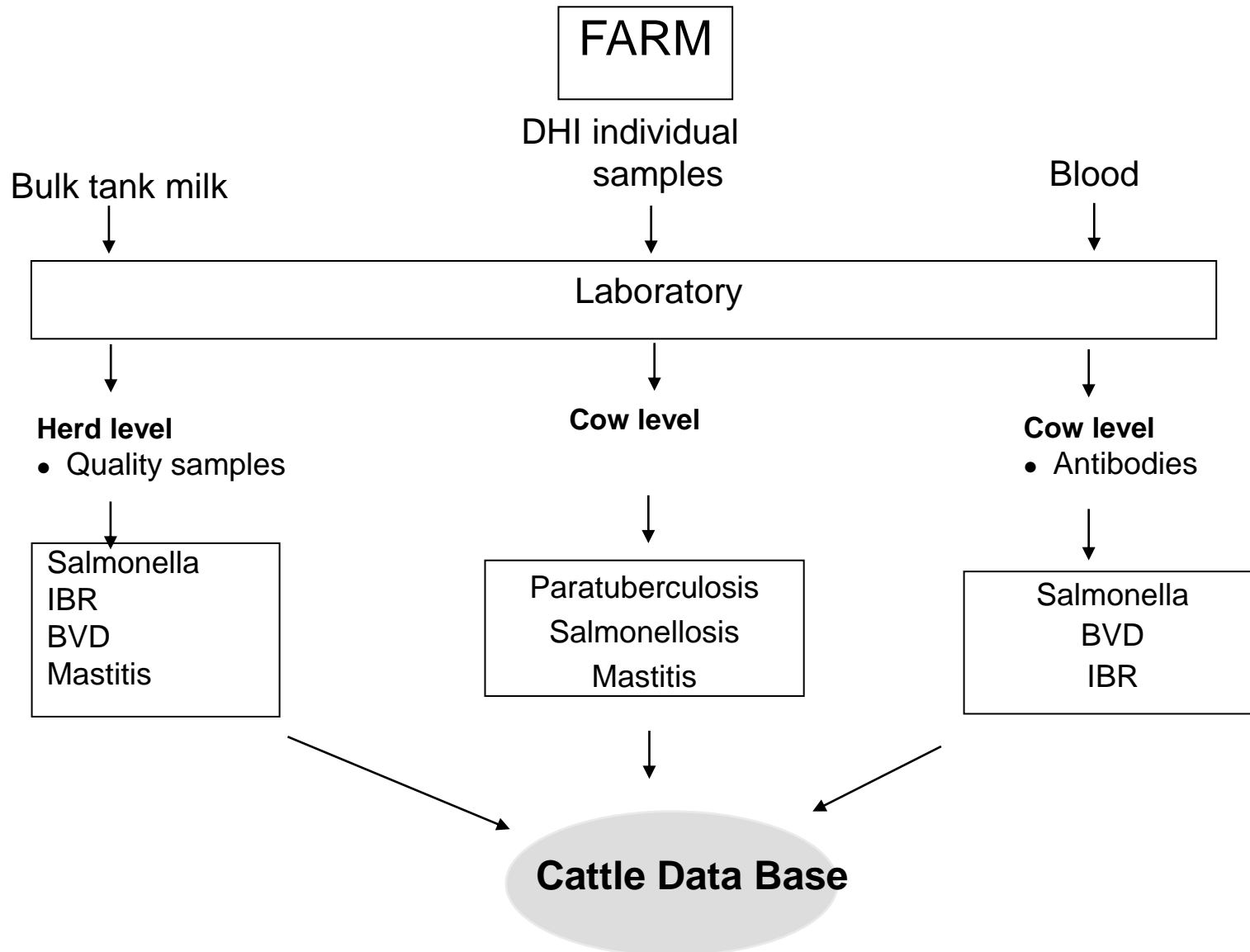
- Mycoplasma bovis
- Antibiotic resistance: (MRSA)
- Operation Paratuberculosis (Johnes disease)
- Herds importing live animals

## Research screenings (examples)

- Bovine Respiratory Syncytial Virus
- Bovine Corona Virus
- Moraxella bovis



# Surveillance - sampling scheme



# Sampling and administration of surveillance programmes

According to governmental amendments:

- All dairy herds sampled by bulk tank milk:
  - 4 times annually (BVD, Salmonella)
  - 1 time annually (IBR)
  - 2 times annually (Streptococcus agalactia)
- Non-dairy herds: IT technology automatically points out slaughtered cattle to be blood sampled for IBR, BVD and Salm. Dublin examination by disease specific periods.
- SEGES Innovation administrate all clarifications of suspected herds

## Number of sampled herds 2023

### Bulk tank milk

Disease	Herds
BVD	2,300
IBR	2,250
Salmonella Dublin	2,300
Str. agalactiae	2,300

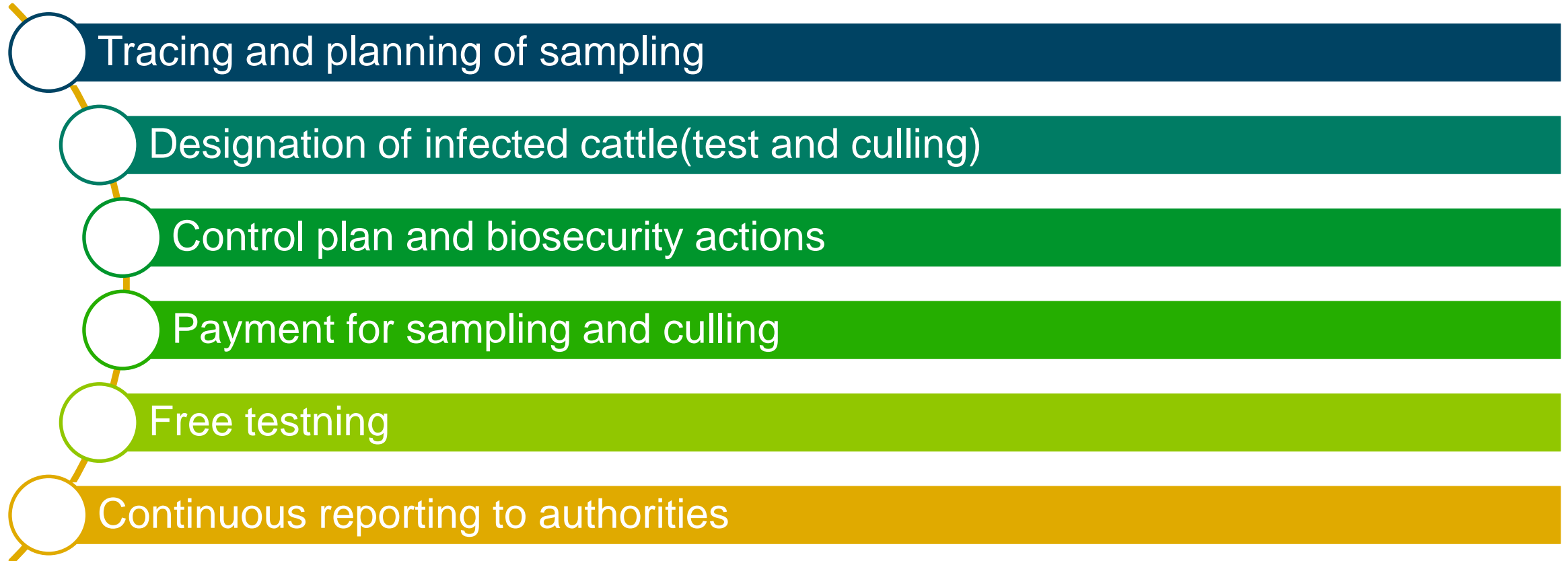
### Blood samples

Disease	Herds
BVD	7,700
IBR	7,400
Salmonella Dublin	8,500

## Number of analyses 2023

Disease	Analyses
<b>BVD</b>	
Blood at slaughter	18,000
Bulk tank milk	10,000
<b>IBR</b>	
Blood at slaughter	10,000
Bulk tank milk	2,300
<b>Salmonella Dublin</b>	
Blood at slaughter	14,000
Bulk tank milk	14,500
<b>Str. agalactiae</b>	
Bulk tank milk	6,700

# SEGES' role in disease control



# Threads of disease introduction from abroad

## Import of live cattle

### Indirect infection, eg:

- Hoof trimmers
- Veterinarians
- Technicians
- Semen, feed, a.s.o.
- Visitors
- Vehicles
- Everything else

## Insects

- bluetongue



# Import and export of live cattle

- Annual import of 100-300 cattle
- Export of
  - 50,000 calves
  - 55,000 heifers

# Risk assesment countries

## Low risk

Country
Finland
Iceland
Norway
Sveden

## High risk

Country
Belgium
France
Holland
Ireland
Italy
Latvia
Poland
Schwizerland
Spain
UK
Germany
Hungary
Austria
Other countries





# Other control programmes in Danish cattle farms

”Operation Paratuberculosis” (Johnes Disease)

Voluntary herd control program since 2005

- 435 dairy herds – 113,000 cows participating

Certification program since 2011

# Quality control and certification programmes

- "Self monitoring control" (EU-regulations)
- Dairy companies: "Arlagården" and "Gården"
- Danish Crown, slaughterhouse: "Code of Practice"