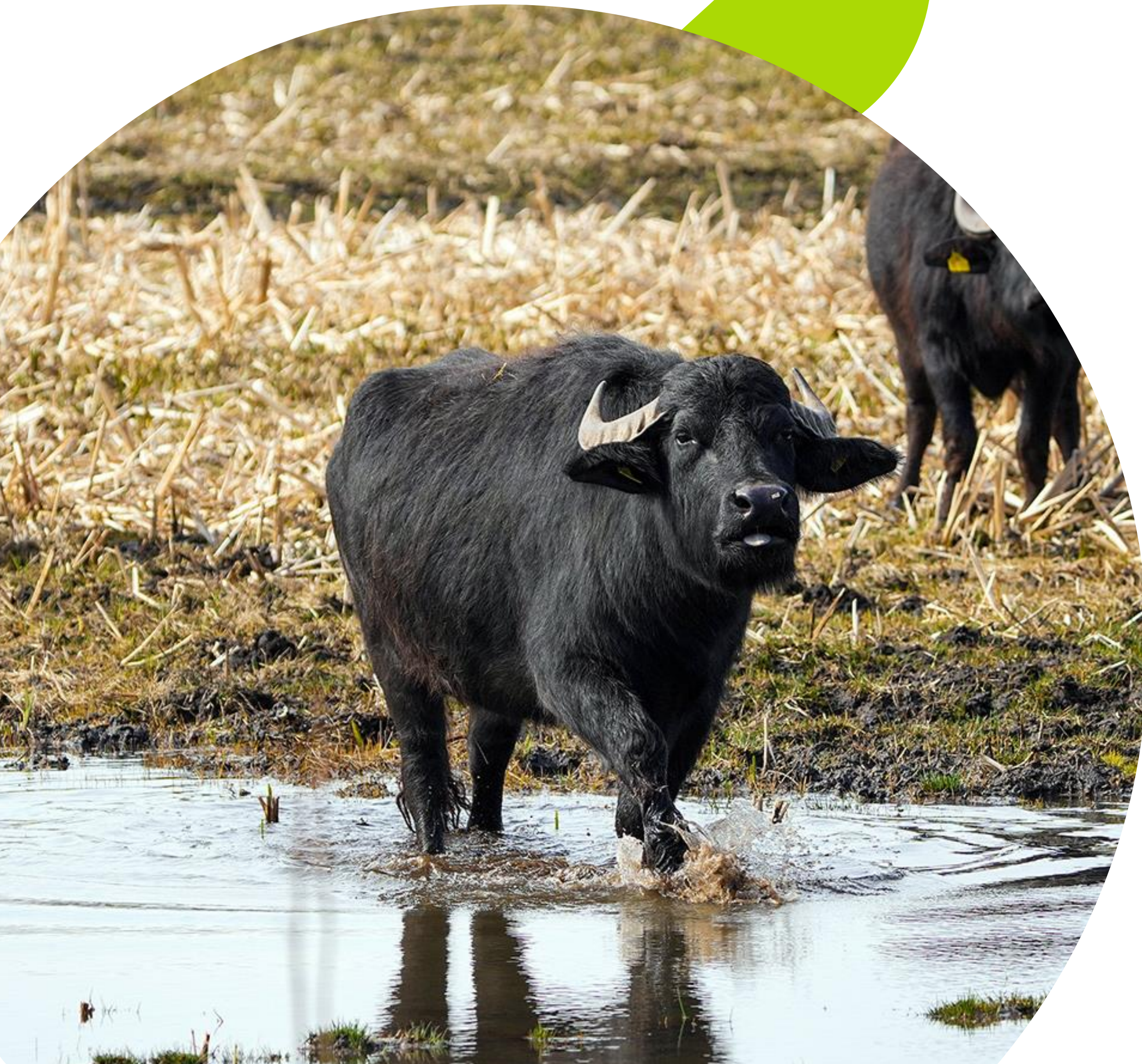


# Foot and mouth disease

How do we manage it?

**Symposium Animal Health**  
Sciensano

**25.03.2025**





## Why do we always shoot into a mild spasm whenever FMD appears?

- Sensitive species = artiodactyla + proboscidea
- Serious clinical picture with low mortality but high and often lasting production loss
- Very contagious disease, that easily spreads through direct and indirect contacts
- Preventive vaccination abandoned in 1991
- Omnipresent worldwide with high presence at EU borders = constant risk
- Luckily only few introductions in recent decennia

potentially very high  
impact on animal health,  
society and economy

- includes all ruminants, camelids, elephants
- both domestic/agricultural animals and wild animals
- both commercial and backyard

- animals
- animal products (meat, milk, germinal products, manure)
- vehicles, material, other fomites
- environment (dust, air, water)

- UK-NL-FR 2001
- UK 2007
- BG 2011
- DE 2025
- HU 2025

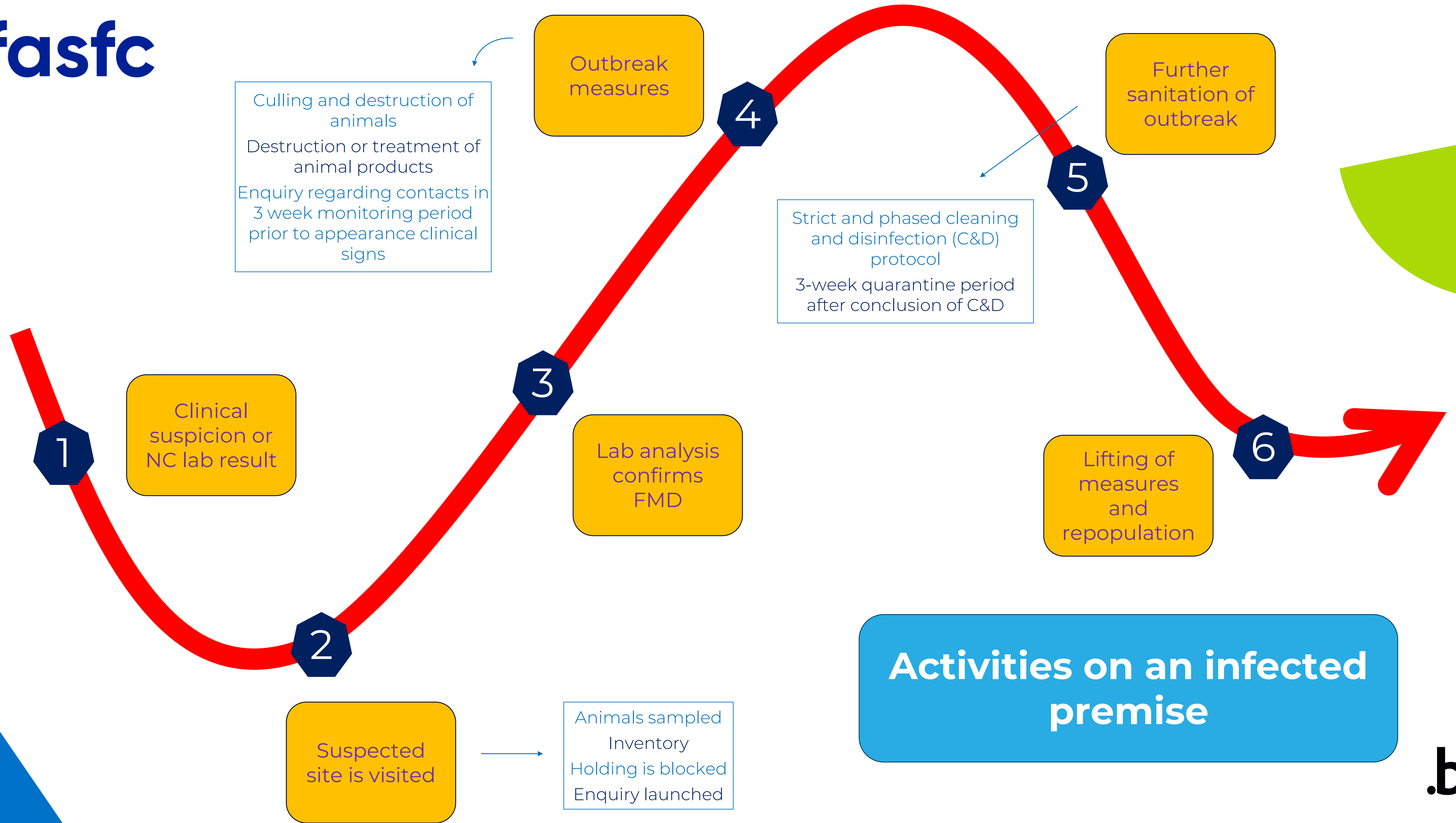


## How do we control FMD?

- Aim = **eradication**
- Legal framework = 90% EU + 10% national
- Standardised approach across EU MS
- Approach at three levels throughout the entire period from contamination to eradication
  - contaminated holding
  - contact holdings
  - restricted zones
- Emergency vaccination is possible



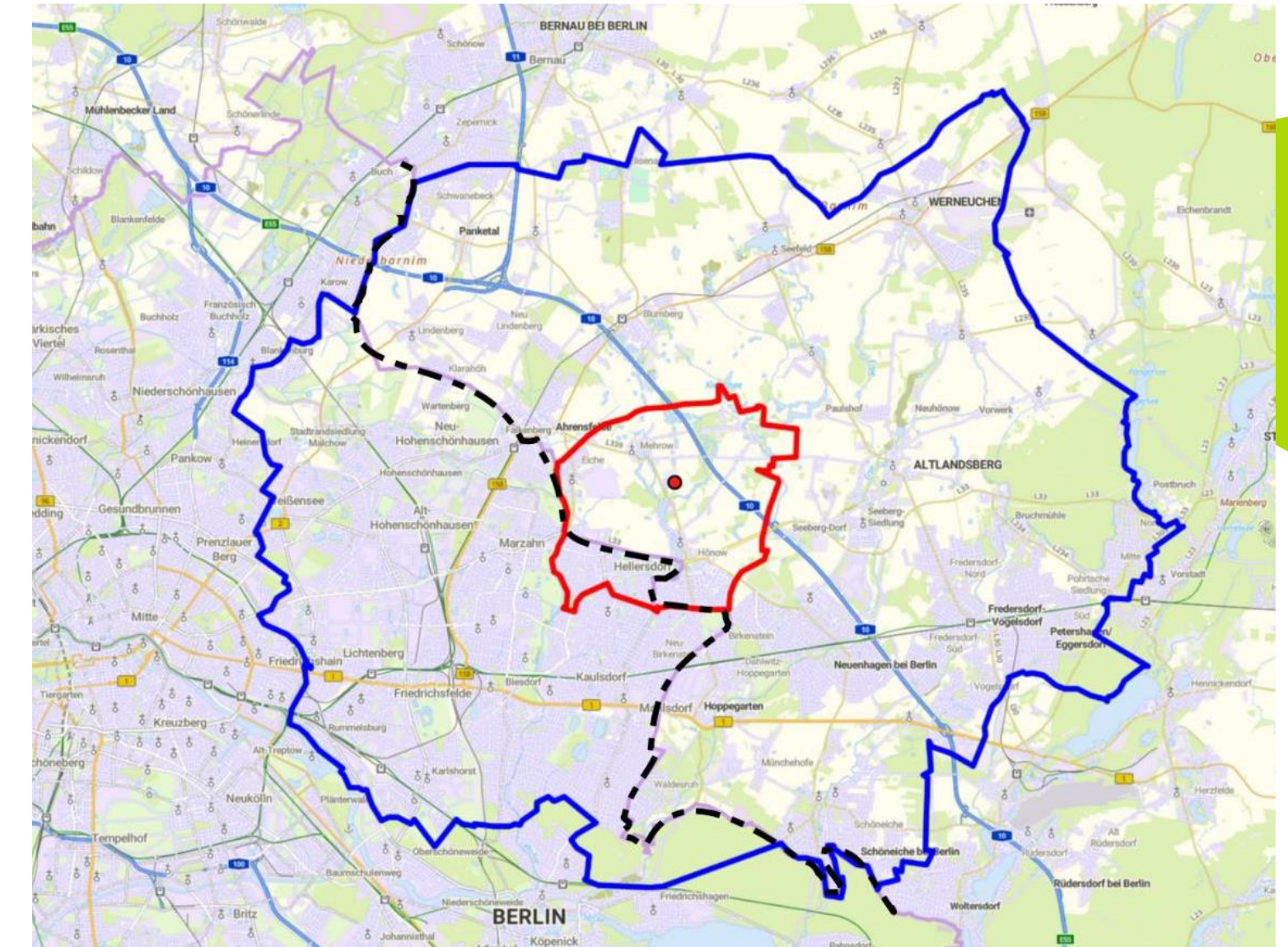
- EU
  - Animal health Law (2016/429)  
= foundation, framework
  - Delegated Regulation 2020/687  
= control measures
  - Delegated regulation 2023/361  
= emergency vaccination
- BE = **Royal decree 10.10.2005**
  - adapts EU rules to situation in BE
  - gives additional control measures and preventive measures  
e.g. standstill, biosecurity measures



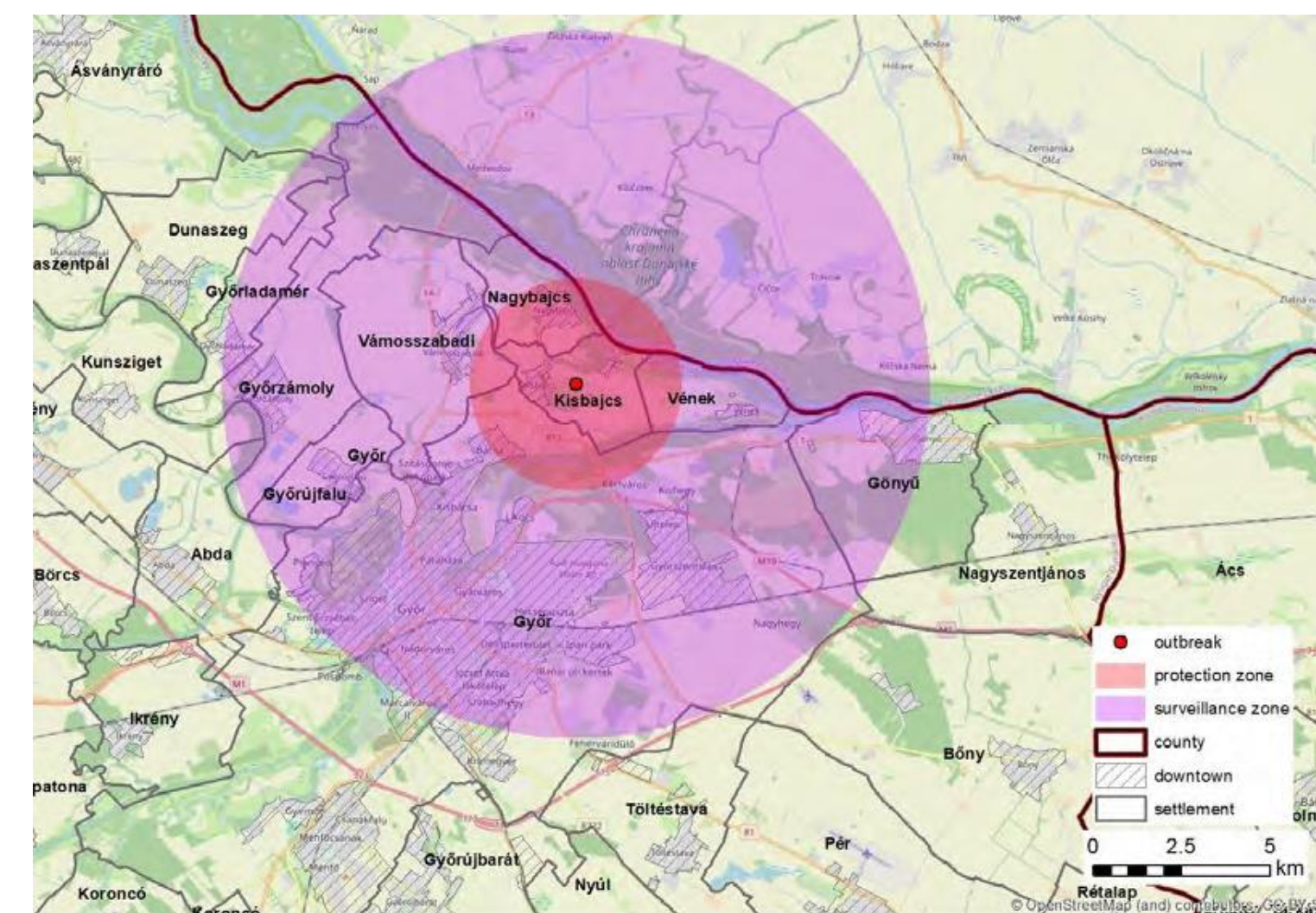


# Approach regarding zoning

- Restricted zones
  - protection zone (3 km radius)
  - surveillance zone (10 km radius)
  - further restricted zone = buffer zone (variable radius)
- Inventory of all establishments with animals
- Surveillance on all holdings
- Ban on activities related to pigs, ruminants and camelids
  - impact of measures  
3 km > 10 km > further restricted zone > free area
  - derogations possible according to risk
- Free area
  - temporary national or regional standstill
  - increased surveillance
  - biosecurity measures



Zoning for the outbreak  
in DE in Jan 2025



Zoning for the outbreak  
in HU in Mar 2025



## Contact and neighbouring holdings

- All incoming and outgoing contacts of outbreak in 3 weeks (= monitoring period) prior to appearance of clinical signs
  - animals
  - animal products (meat, milk, germinal products, manure)
  - vehicles, material, other fomites used in on-site and off-site activities
- Holdings in vicinity of outbreak
  - local spillover of virus
  - identified based on following criteria
    - distance
    - type of activities
    - duration of presence of disease
    - wind and other weather conditions



- All contact holdings are considered as suspected sites
- Prioritised according to risk involved based on
  - type of contact
  - time of contact
- Follow-up for at least duration of monitoring period
  - regular clinical examination
  - sampling and analysis (virus + antibodies)



- Alternative follow-up of high-risk contacts
  - preventive culling
    - culling capacity must be available
  - emergency vaccination
    - will quickly reduce virus shedding

# What happened in DE and HU?

## Germany

- Infection detected on 10 Jan 2025
  - mortality in 3 adults in days prior
  - initially BT suspected
- Holding with 14 water buffalos close to Berlin
  - kept on pasture
  - no significant incoming nor outgoing contacts
  - no live animals introduced or dispatched
- Virus
  - O-type (O ME-SA 2018)
  - present in Turkey / Middle East
- Introduction?
  - mid Dec 2024 based on age of lesions and presence of antibodies
  - most plausible route = contaminated food left on pasture by passer-by (cf. Berlin)

## Hungary

- Infection detected on 6 Mar 2025
  - clinical signs in group of heifers in days prior
- Holding with 1400 cattle for milk production close to border with Slovakia
  - no significant incoming contacts
  - daily contacts with separate fattening unit
  - no live animals introduced
  - live animals dispatched to Austria and Slovenia
- Virus
  - O-type (O Pan-Asia)
  - Related to Pakistani strain from 2017-2018
- Introduction?
  - around 26 Feb based on age of lesions and appearance of antibodies
  - plausible route = unknown

Both outbreaks have been managed as described in previous slides. No secondary infections were observed. No virus was spread to other MS through trade in live animals.

## What have we done?

- Biggest risk = transport of live animals to BE in monitoring period prior to outbreak
  - from outbreak
  - from non detected infected premise
  - from assembly centre
- Sources available
  - TRACES, Sanitel
  - information provided by authorities in DE and HU
  - information of industry (veal calves)
- Blocking (suspicion) and surveillance of animals identified
  - clinical examination
  - sampling and analysis (virus + antibodies)
- Practical issues
  - no ready to use data on assembly centres
  - Initial uncertainty on extend of outbreak



- Initial assessment of “high-risk event” could be quickly reduced:
  - DE
    - location of outbreak
    - quick information of authorities on situation on infected premise
  - HU
    - country we have little contacts with
    - quick information of authorities on situation on infected premise



## Lessons learned from both outbreaks

FMD remains a constant threat  
ongoing vigilance and preparedness  
are essential

