



Bundesministerium für
Verbraucherschutz, Ernährung
und Landwirtschaft

SPS workshop on regionalisation Geneva, 01-02.02.2006

Application of regionalisation:

**Eradication of classical swine fever
in wild boar
Rhineland-Palatinate - Germany
2002 – 2005**



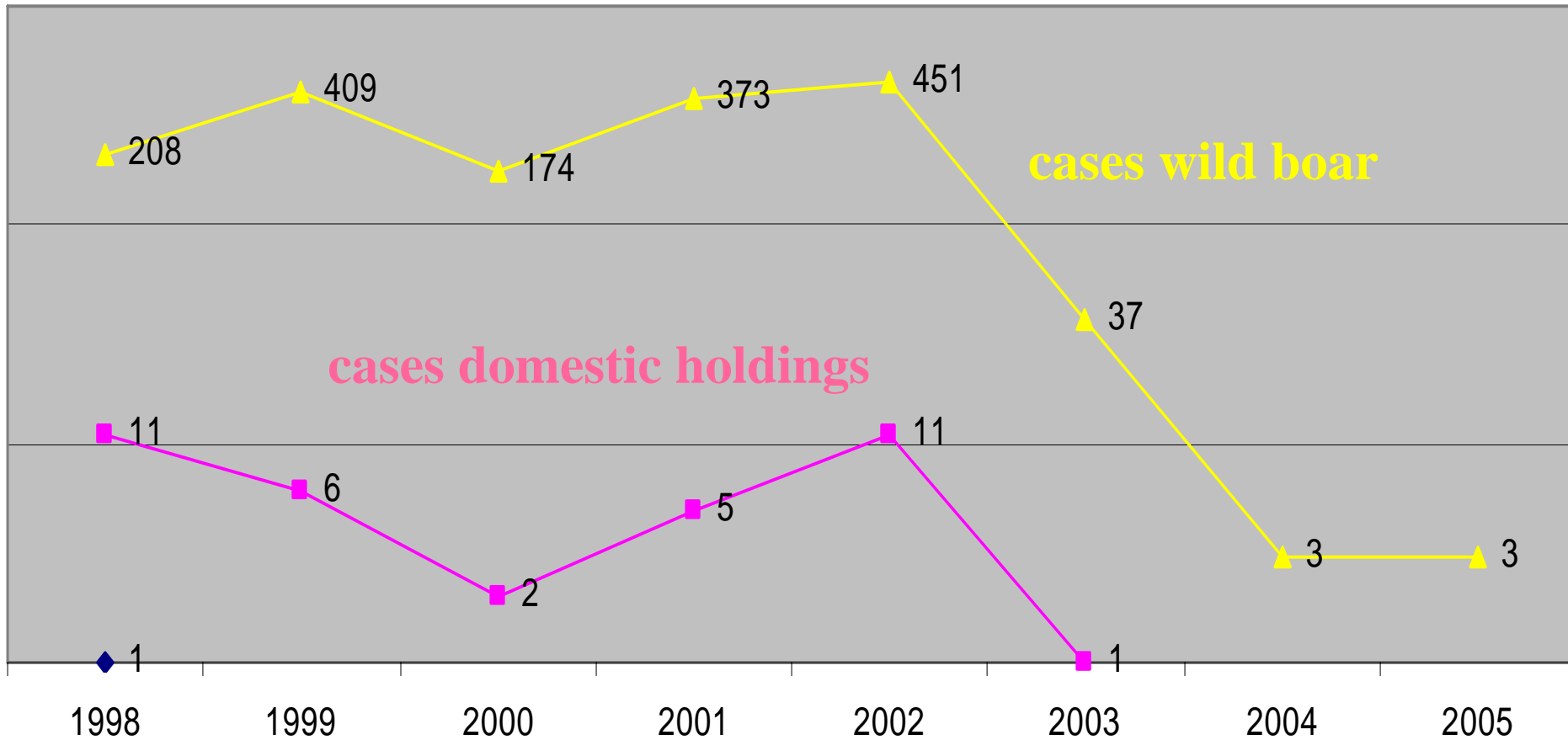


Classical Swine Fever (CSF) - Background

- High mortality infectious disease of pigs (both domestic and wild)
- CSF may cause major disturbance to trade internally and externally (EU exports)
- Virus reservoirs in feral pigs have been the most common source of infection (> 60 % of primary outbreaks)
- Oral vaccination of the infected feral pig population is a key measure to control the spread and eradicate the disease

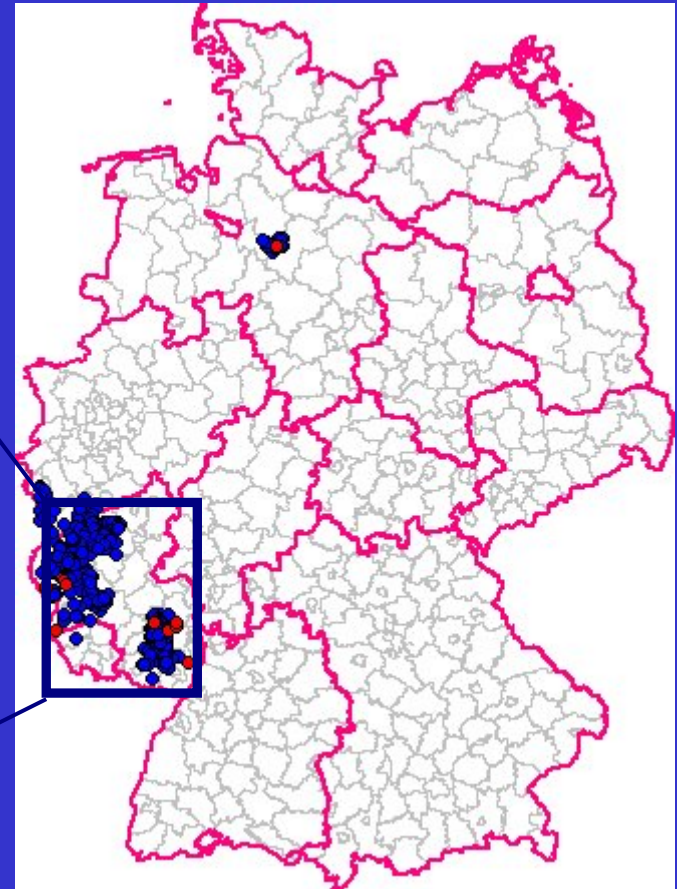
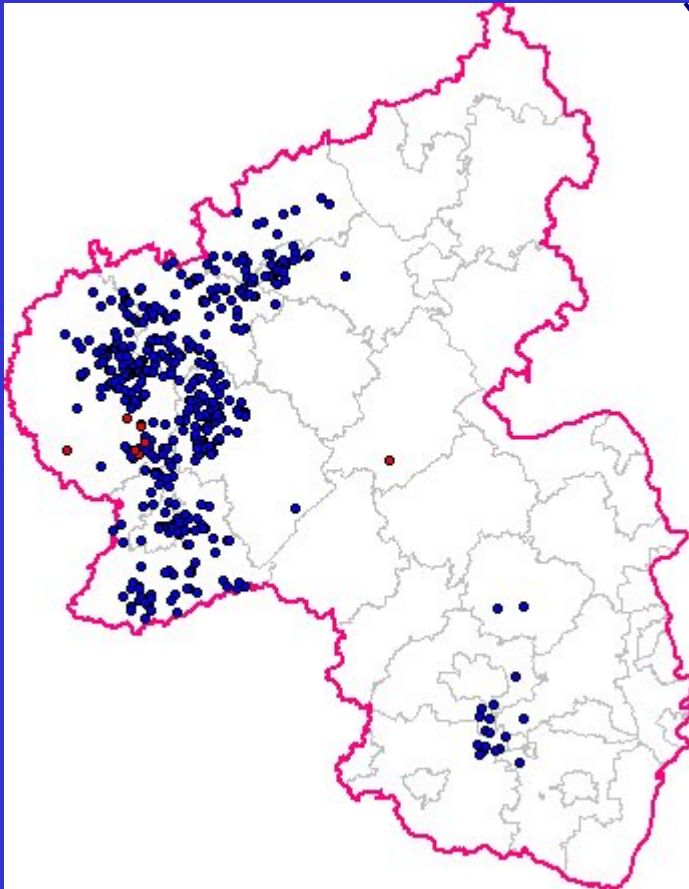


CSF in wild boar and domestic pigs



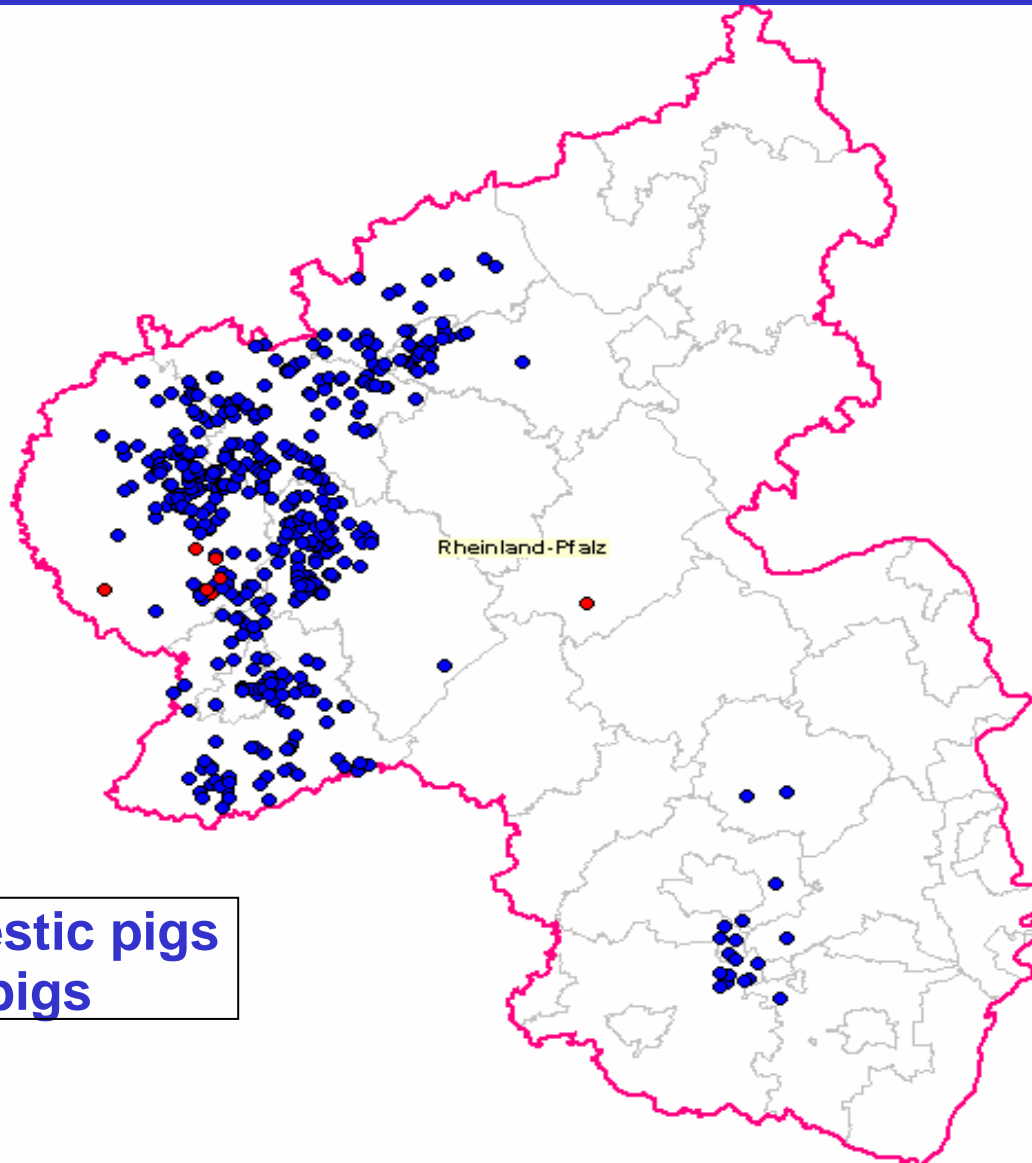


CSF in Rhineland-Palatinate Outset situation during 2001- 04/2002





CSF in Rheinland-Pfalz 2001- 04/2002



- Domestic pigs
- Wild pigs



Main elements for application of regionalisation

- Appropriate area definition
- + Effective control measures
- + Adequate surveillance measures
- + Risk assessment for specific commodities
- + Audits and inspections
- + Quality of Veterinary Services
- = Successfull regionalisation



Appropriate area definition depends on:

- **Epidemiological situation**
 - Genetical virus type
 - Wild boar specific biology
(total no., density, age structure, feeding habits, migration routes, hunting practices)
- **Geographical situation**
 - Forest and land management
 - Administrative boundaries



Genetical CSF virus typing 1993 - 2005

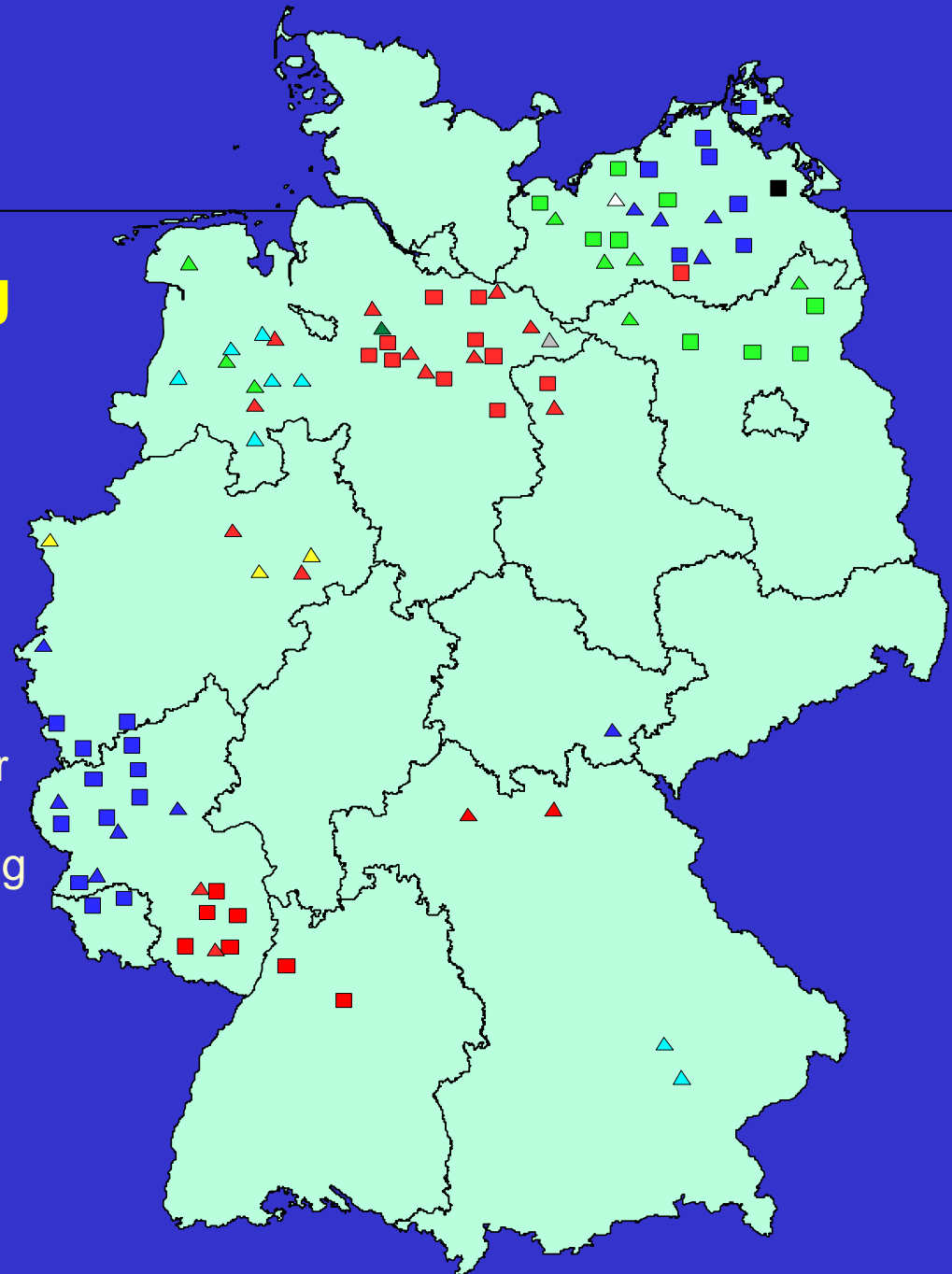
Virus type

-  2.3 Spreda²
-  2.3 Uelzen¹
-  2.3 Rostock¹
-  2.3 Güstrow¹
-  2.3 Spante³
-  2.2 Ringelsdorf²
-  2.1 Paderborn²
-  2.3 Rotenburg²
-  2.3 Warnow²

Species

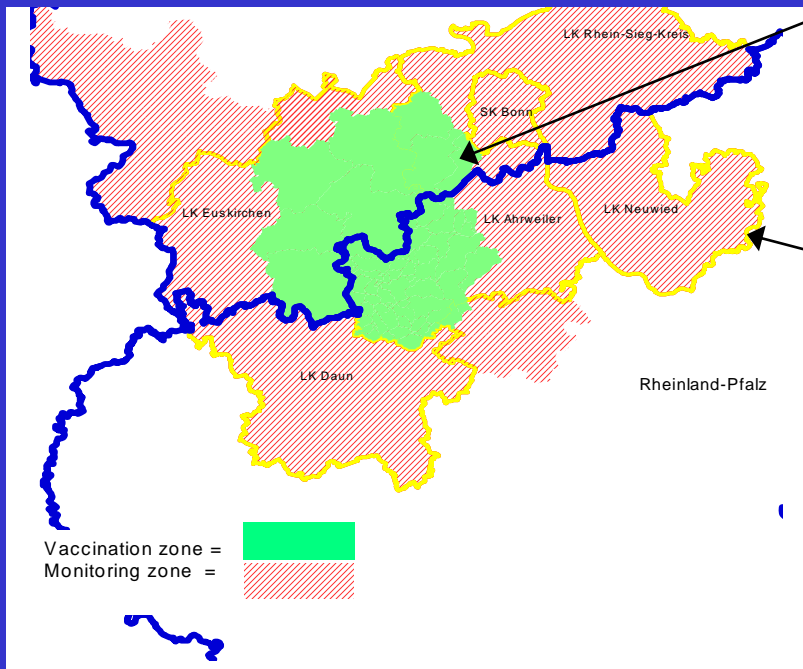
-  wild boar
-  domestic pig

- ¹ Domestic pigs and wild boar
- ² Domestic pigs only
- ³ Wild boar only





Example of a
vaccination
zone
with
surrounding
monitoring
zone





Control measures in regionalised area

- No trade of pigs, semen, ova or embryos from defined area
- No transit through area except non-stop transport via major roads or railways
- No fresh meat of wild boar from defined area
- 30 days rule
- Derogation for slaughter pigs and for national movements of pigs after clinical and serological tests for CSF
- Measures to avoid spread of vaccine virus to domestic swine
- Additional biosecurity measures for transport vehicles and holdings
- Implementation of measures by certification
- Virological and serological tests of all wild boar found dead or shot

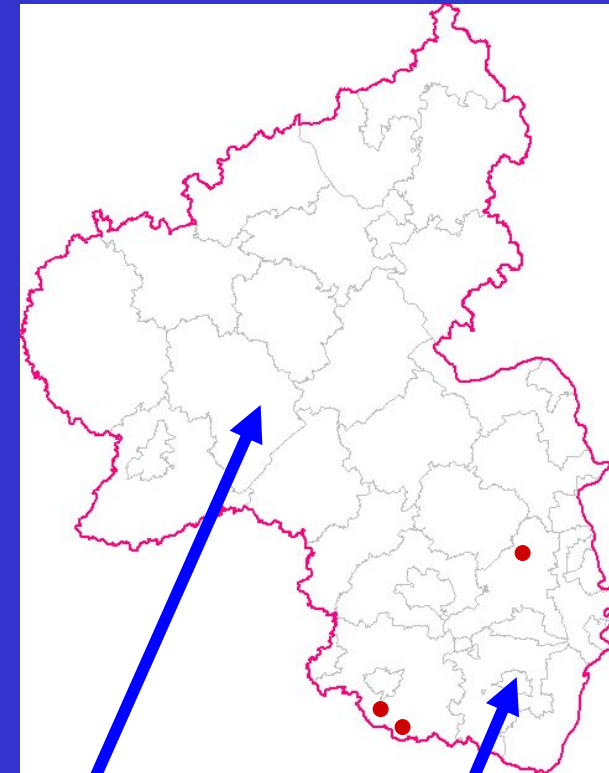
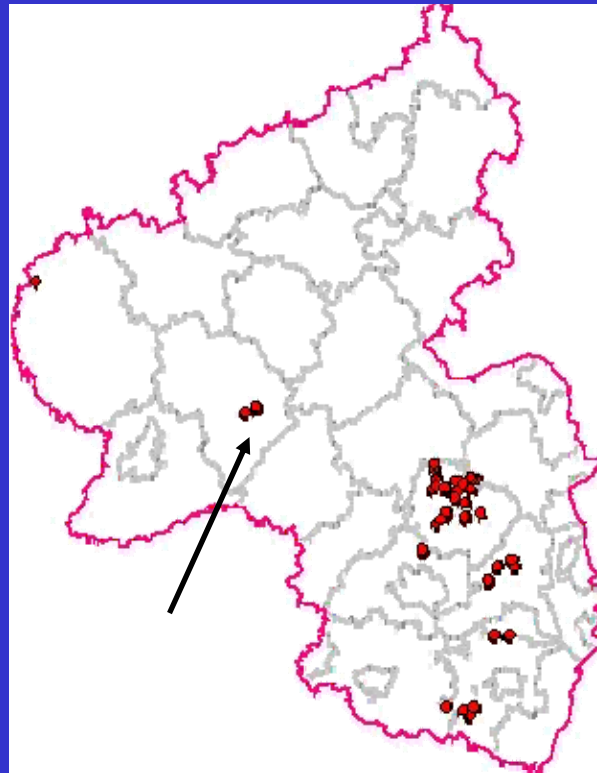
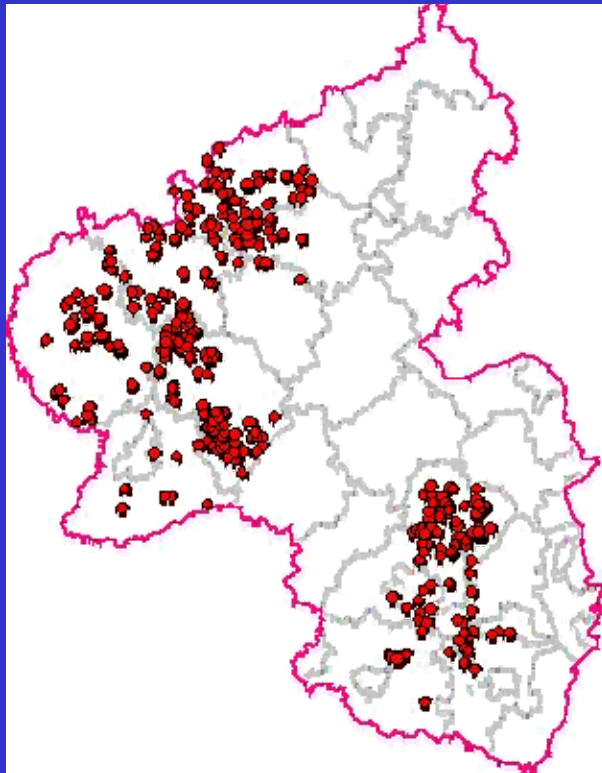


Progress in CSF eradication in wild boar in Rhineland-Palatinate

2002

2003

2004



● Outbreak in wild boar

3rd year vaccination „Eifel“
2nd year vaccination „Pfalz“



Performance of Vaccination

Vaccine:

CSF-non-pathogenic live vaccine

Blister with 1.6 ml vaccine suspension in a
bait of corn.

Implementation:

Spring, summer and autumn campaign.

Each time a double immunisation with
interval of 28 days

30-40 baits/ km² with help of hunters, hand
dispersal.





Number of vaccine baits distributed in Rhineland- Palatinate

	2002	2003	2004	Summe
Eifel	approx. 1.451.000	approx. 1.475.200	approx. 1.456.800	approx. 4.383.000
Palatinate	-	approx. 551.200	approx. 536.000	approx. 1.087.200
Sum	approx. 1.451.000	approx. 2.026.400	approx. 1.992.800	approx. 5.470.200



Figures on swine fever in Rhineland-Palatinate

Examined wild boar in the vaccination areas (as of 1 December 2004):

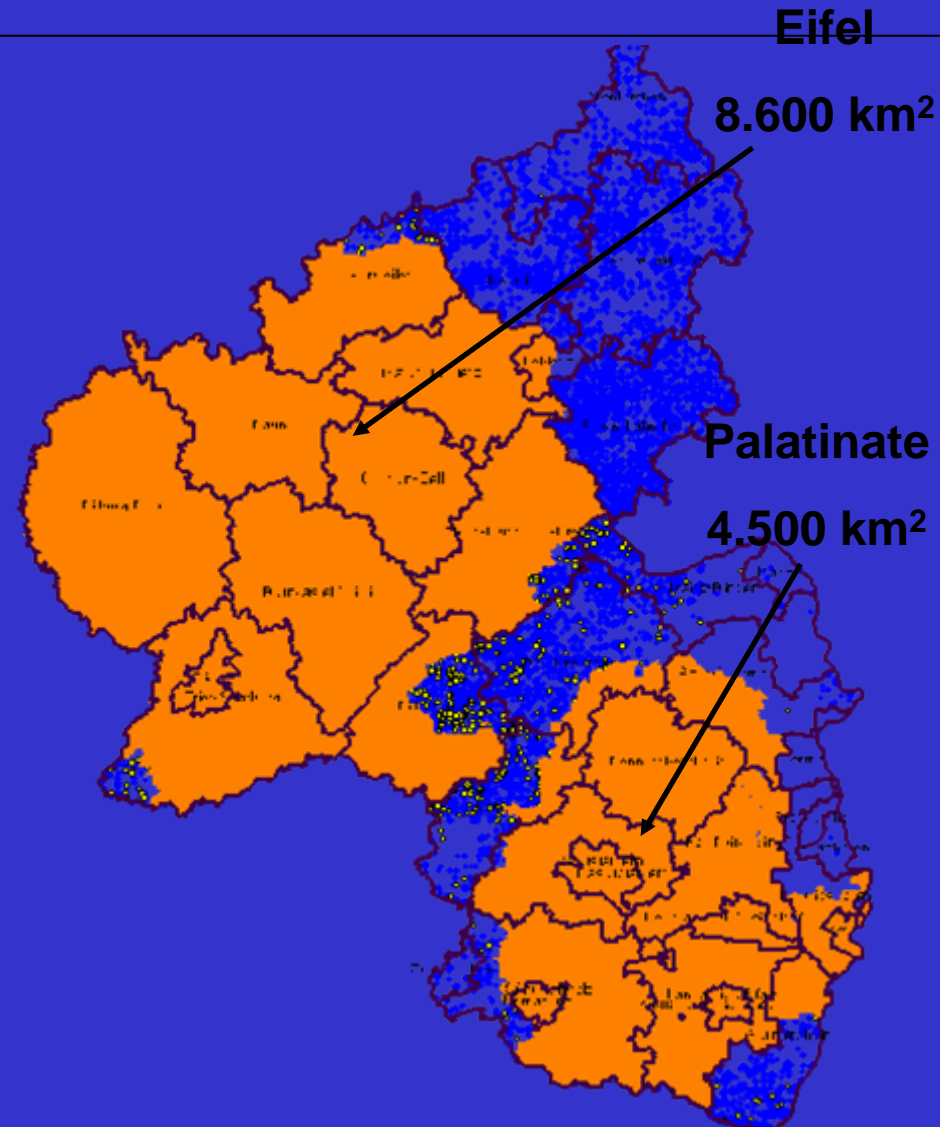
2002: 22.080 (Eifel)

2003: 43.005 (Eifel: 33.253)
(Palatinate: 9.752)

2004: 33.122 (Eifel: 25.029)
(Palatinate: 8.093)



Wild boar – vaccination
area





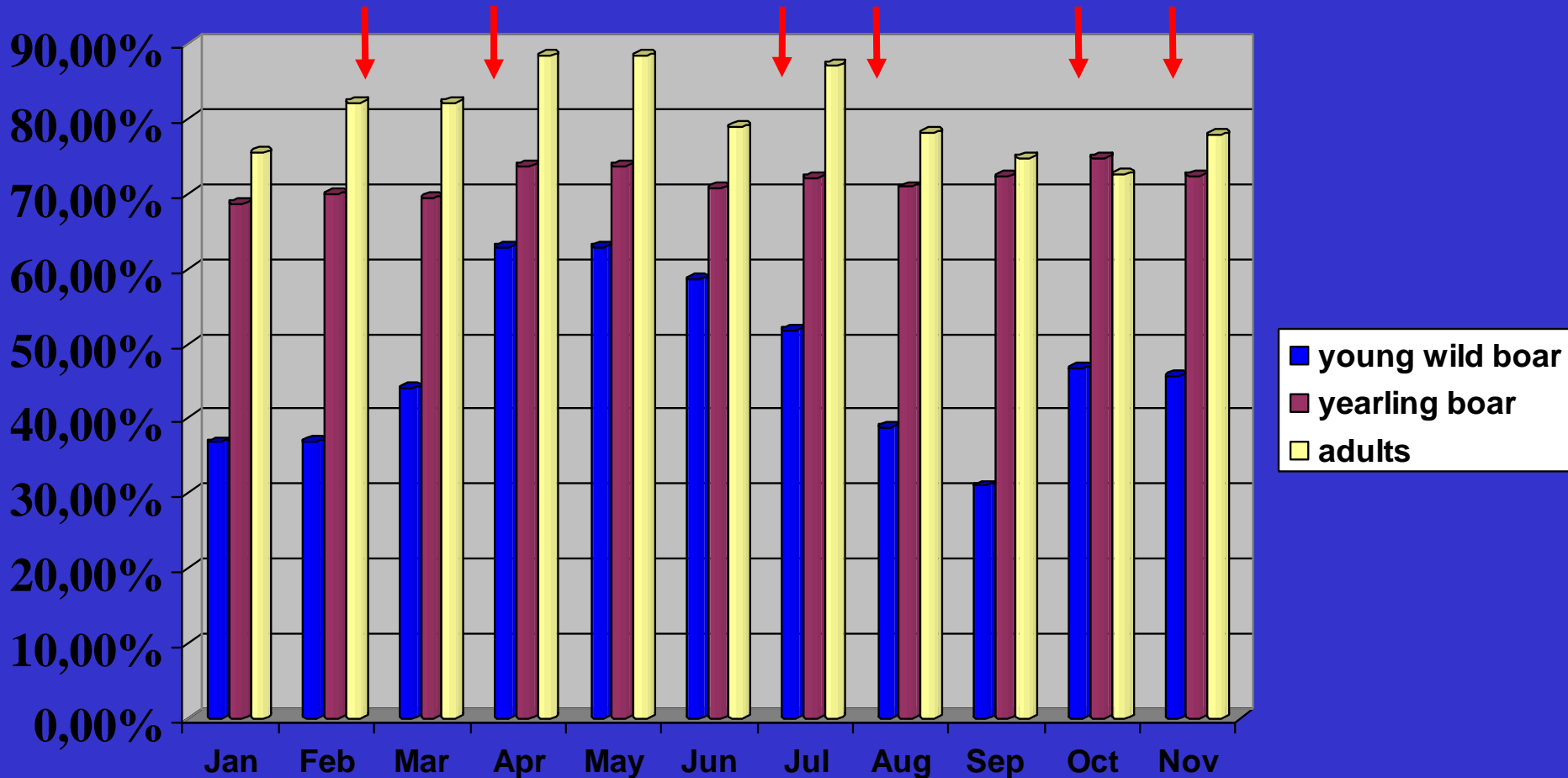
Surveillance measures: Serological and virological tests

Year	Number of wild boar being examined	Antibody positive	Virus positive
2002 (Feb. – Dec.)	22,080	13,121 (59.4 %)	250
2003	33,253	18,010 (54.2 %)	3
2004 (Jan. – Nov.)	25,029	14,593 (58.3 %)	0



Verification of vaccination measures: Seroconversion vaccination area Eifel 2004

oral immunization





Success in eradication of CSF in wild boar

Rhineland/Palatinate/Region Eifel:

2002: 250 virus findings (start immunization)

2003: 3 virus findings (last of 24.03.2003)

2004: 0 virus findings

Antibody-titre: > 58 %

No more virus findings →

Termination of disease →

Lifting of regionalisation



Mutual trust and transparency: The International CSF Surveillance Data Base

- Transparent insight into the epidemiological situation with regard to CSF in wild boar between the participating member states

The screenshot displays the 'CSF of Wild Boar' web application interface. The main content area features a map of Europe with various regions highlighted in different colors, representing different CSF surveillance and infection data. The map is titled 'CSF of Wild Boar' and includes a welcome message: 'Welcome to the Animal Notification System for Belgium, France, Germany, Luxembourg and The Netherlands'. The interface is divided into several sections:

- Home:** A navigation bar with a European Union flag.
- CSF Data Base:** A sidebar menu with options: Edit, Upload, and Record viewer.
- CSF-DB Reports:** A sidebar menu with options: Standardized report and Time series.
- Region Data Base:** A sidebar menu with options: Edit and Record viewer.
- Maps:** A sidebar menu with options: Standardized, Pre-designed, and Map-Explorer.
- Service:** A sidebar menu with options: News (06.12.2004) and Credits.
- Layer-Control:** A central panel with a list of map layers, including CSF-Query, Nuts 0, FRA Surveillance 04/03, FRA Monitoring 04/03, FRA CSF infected 04/03, LUX CSF infected 11/02, DEU(SL) CSF infected 11/02, DEU(RP) CSF infected 01/03, BEL CSF infected 11/02, DEU(NRW) CSF infected 08/02, and Nuts 3.
- Legend:** A panel on the right side of the map, titled 'Legend', which includes a 'CSF-Query' legend, a 'Nuts 0' legend, and a 'Scalebar'.
- Scalebar:** A scale bar showing a distance of 12,830,700 meters, with a scale of 1 cm = 28.31 km.

The map shows the following data layers:

- CSF-Query:** A red diamond symbol.
- Nuts 0:** A green square symbol.
- FRA Surveillance 04/03:** A light blue square symbol.
- FRA Monitoring 04/03:** A cyan square symbol.
- FRA CSF infected 04/03:** A yellow square symbol.
- LUX CSF infected 11/02:** A green square symbol.
- DEU(SL) CSF infected 11/02:** A purple square symbol.
- DEU(RP) CSF infected 01/03:** A pink square symbol.
- BEL CSF infected 11/02:** A brown square symbol.
- DEU(NRW) CSF infected 08/02:** A dark purple square symbol.
- Nuts 3:** A white square symbol.

The map shows the following data points:

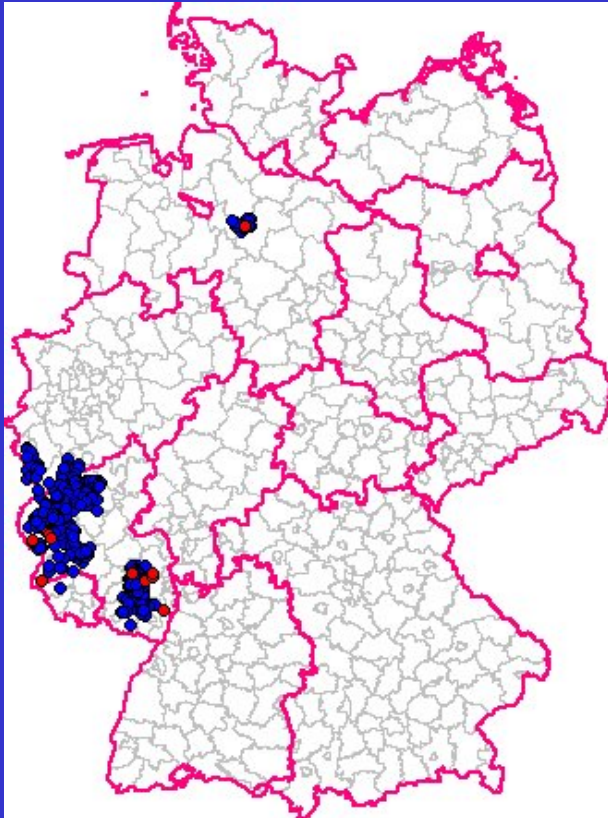
- CSF-Query:** Red diamonds indicating CSF cases in Germany, Luxembourg, and the Netherlands.
- Nuts 0:** Green areas representing Nuts 0 regions.
- FRA Surveillance 04/03:** Light blue areas representing FRA Surveillance regions.
- FRA Monitoring 04/03:** Cyan areas representing FRA Monitoring regions.
- FRA CSF infected 04/03:** Yellow areas representing FRA CSF infected regions.
- LUX CSF infected 11/02:** Green areas representing LUX CSF infected regions.
- DEU(SL) CSF infected 11/02:** Purple areas representing DEU(SL) CSF infected regions.
- DEU(RP) CSF infected 01/03:** Pink areas representing DEU(RP) CSF infected regions.
- BEL CSF infected 11/02:** Brown areas representing BEL CSF infected regions.
- DEU(NRW) CSF infected 08/02:** Dark purple areas representing DEU(NRW) CSF infected regions.
- Nuts 3:** White areas representing Nuts 3 regions.

Optimized for IE 6.0 (800x600)
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Federal Research Institute for Animal Health
21.12.2004

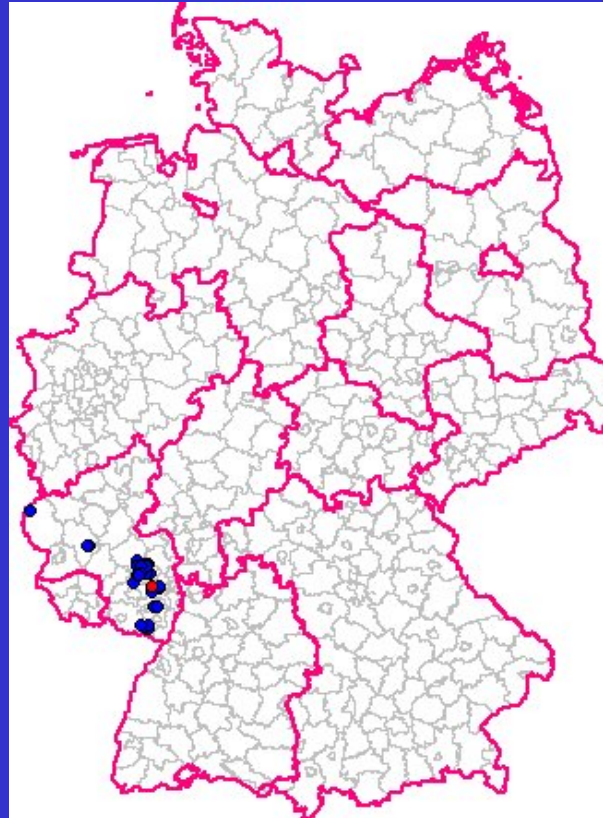
CSF in wild and domestic pigs 2002-today



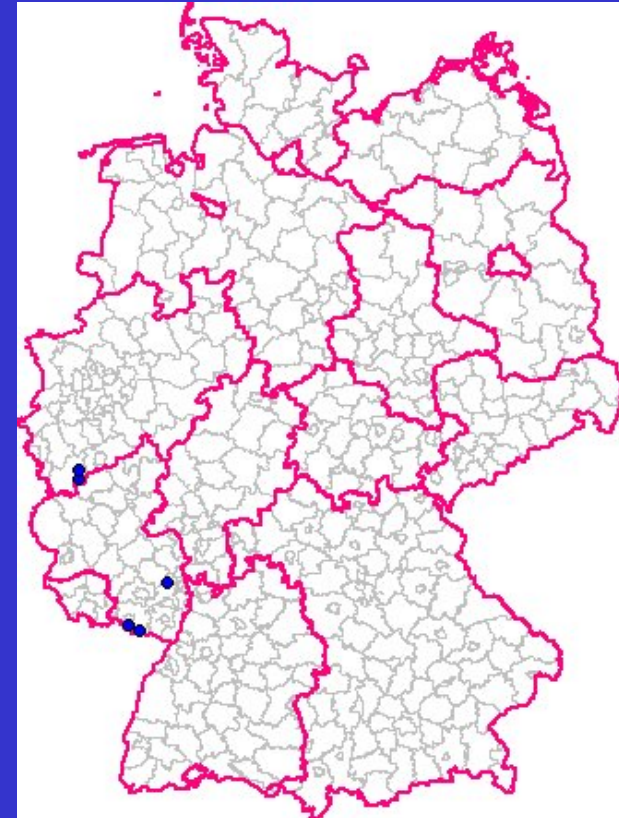
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2002



2003



2004 – 11/2005

- Domestic pigs
- Wild pigs



Conclusion

Regionalisation in the context of protective measures and wild boar vaccination proved to be successful in eradicating CSF whilst at the same time allowing free trade between non-infected regions.

