

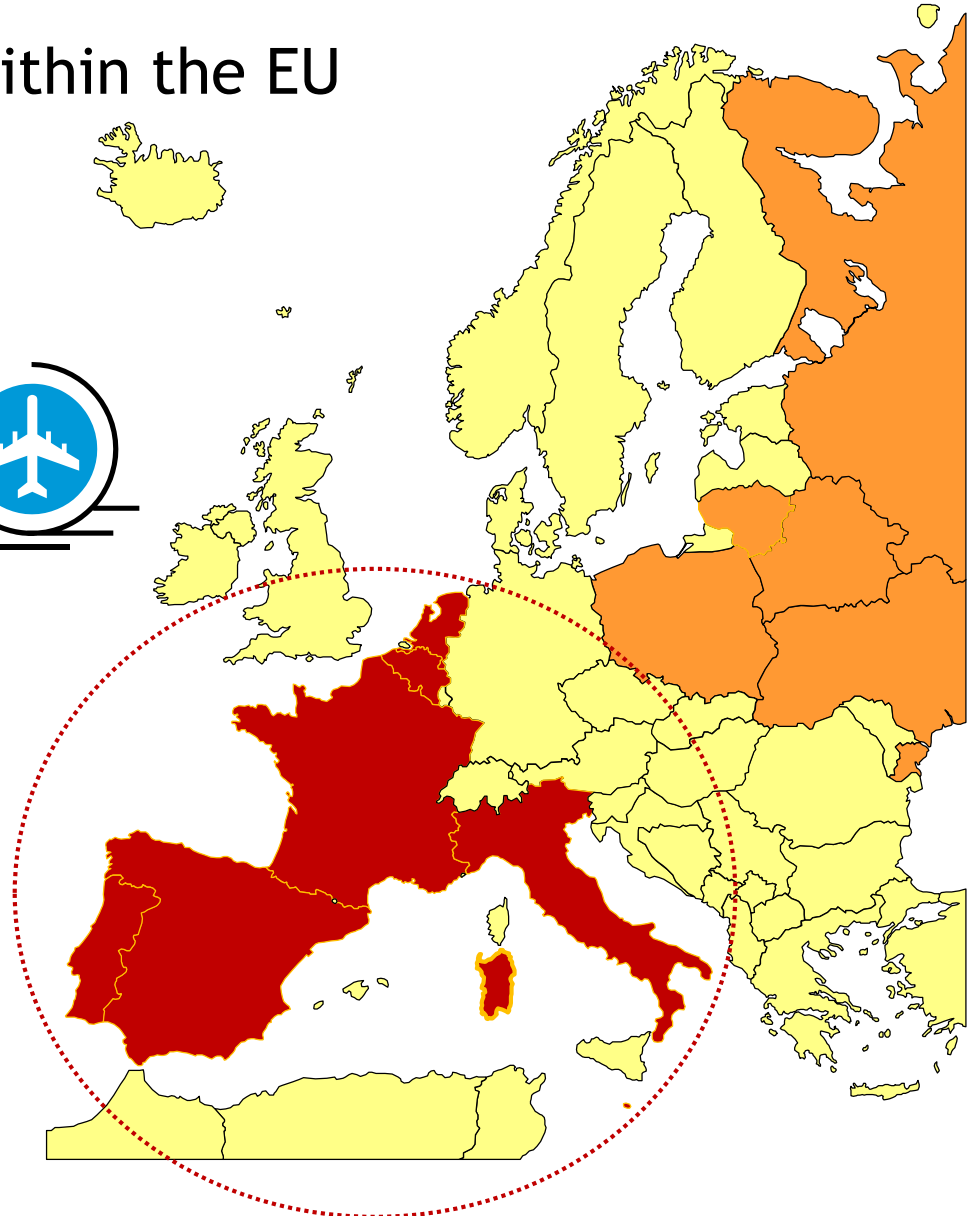
African swine fever - Containing the outbreak



Remember!

„Historical“ ASF outbreaks within the EU

Country	Outbreaks
Portugal	1957, 1960-1993; 1999
Spain	1960-1995
Italy	1967, 1969, 1993 Sardinia: since 1978
France	1964, 1967, 1977
Malta	1978
The Netherlands	1986
Belgium	1985



Successful eradication with the exception of Sardinia!

Swift control in commercial farms in the absence of vectors is feasible!!!

Illegal pigs - the challenge on Sardinia

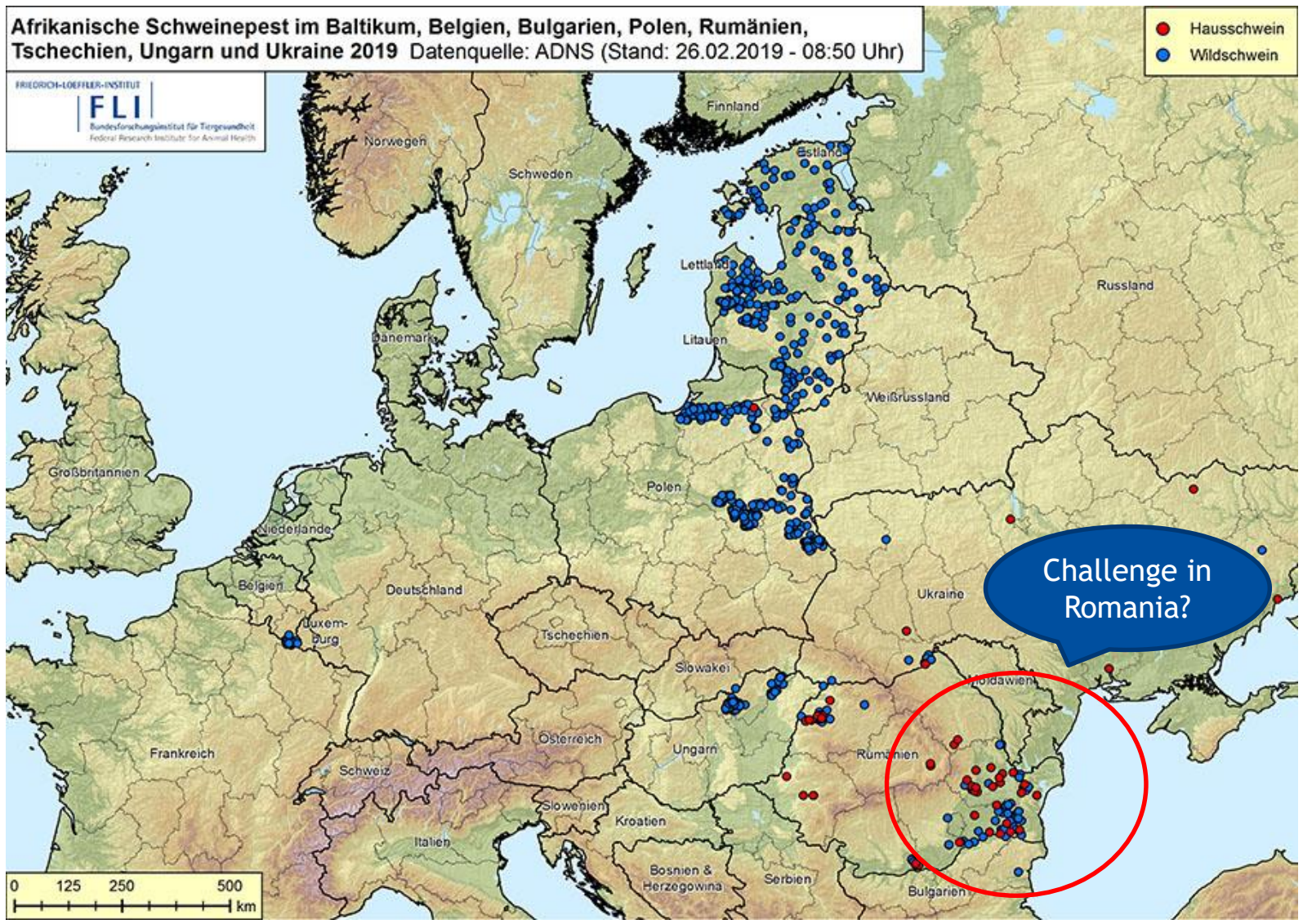


Courtesy of
Marco Sensi

Tick involvement, low virulent strains, difficult vaccination attempts - the challenge on the Iberian Peninsula



Wild boar - the current challenge in Europe



The challenges in China



- Swill feeding
- Movement of infected animals
- Improper carcass disposal
- Contaminated feed and products
- (wild boar)

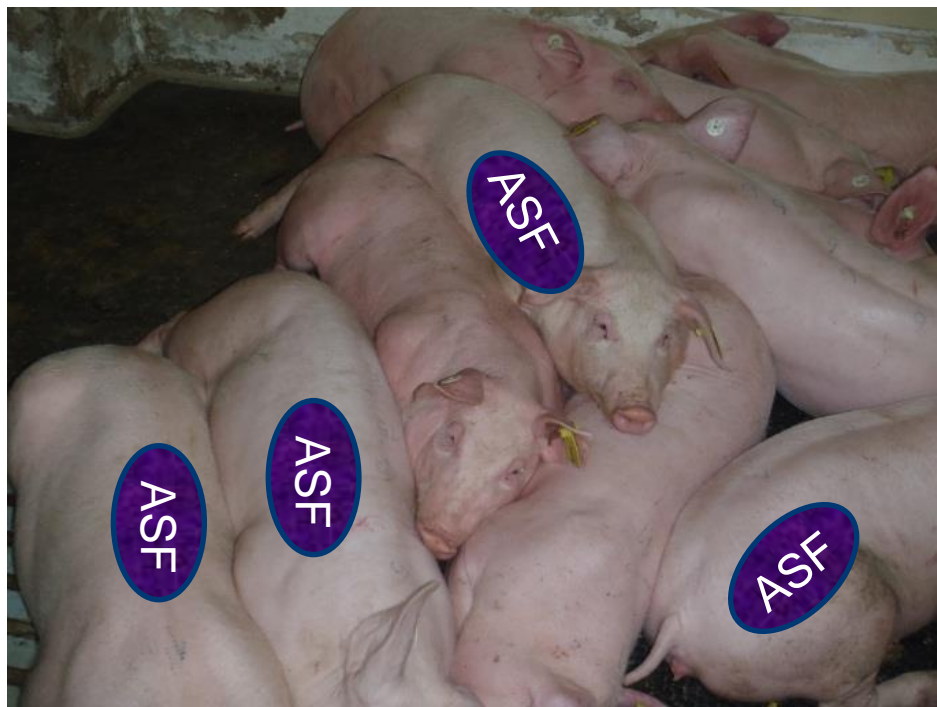
News Jan 7, 2019 (Pig progress):

ASF China: Infected pig carcass found at Taiwanese beach

A dead pig, infected with African Swine Fever (ASF), has been found on the shores of an islet that belongs to Taiwan. Most probably it washed ashore from mainland China.



Challenge: Early detection



???



Challenge: finding and sampling wild boar carcasses



Source: Food and Veterinary Service of Latvia

- Sampling is not easy
- Rotten carcasses are smelly and disgusting...
- Some organs are not available anymore
- Blood (decent fluid) is not available
- Some carcasses are just skeletons



The challenge biosecurity

非洲猪瘟疫

非洲猪瘟 (ASF) 是一种对家猪和野猪具有高度传染性的疫病。目前尚无有效疫苗对抗此病。非洲猪瘟虽对人类健康没有危害,但可对农业经济造成重大损害。

在您的养殖场和市场采取严格预防措施,以保护您和您邻居的猪只。

请勿传播疫病

ASF 致猪死亡

× **猪农**
 请勿成为猪致死性疫病的传播媒介

遵守一般预防措施

- 向兽医部门报告任何疑似病/死猪病例
- 在您的养殖场和市场遵守卫生预防措施
- 禁止使用未经处理的污水或餐厨余料的残渣饲喂猪只
- 防止与野猪直接或间接接触。对于养殖场新进的猪只实行检疫隔离措施
- 清洗及消毒所有您与其他养殖场或野猪人共用的物品
- 防止访客与您的猪只有不必要的直接或间接的接触

如果您住在被感染区域

- 不要运输您的动物或者源自家猪/野猪的产品(自制产品)。
- 请勿在家进行屠宰。
- 确保您的养殖场和猪只已在兽医当局登记。

欲获得更多信息:
www.oie.int/asf

OIE WORLD ORGANISATION FOR ANIMAL HEALTH
 Protecting animals, preserving our future

OIE video - Awareness

We want to prevent:

- Infected animals getting into contact with susceptible animals
- Virus spreading through fomites
- Contaminated products to enter the trade and food chain
- Any other spread of the disease

We want to understand:

- How did the virus get in?
- Where did it possibly go to?
- Which stakeholders and populations are involved
- Obstacles for eradication

We cannot:

- Vaccinate
- Cure

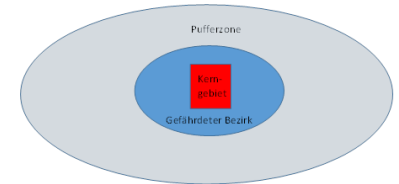
We can implement:

- Movement restrictions
- Reinforcement of biosecurity
- Clinical checks
- Cull infected herds
- Clean and disinfect premises
- Establish fallow periods if necessary
- Try tracing of products
- Try to find dead wild boar
- Targeted hunting/ hunting bans

Trade partners will:

- Establish trade bans
- Scrutinize our actions

Some ideas for control in wild boar (in Europe)



Zone			Maßnahme	Vorteile	Nachteile	Kommentare
1	2	3				
			Jagdruhe	<ul style="list-style-type: none"> Tiere in der Kernzone halten, Ausbreitung der ASP verhindern, durchseuchen lassen 	<ul style="list-style-type: none"> Andere Tierarten müssen u.U. zur Erfüllung der Abschusspläne gejagt werden Steht im Gegensatz zur intensiv Fallwildsuche 	
			Ansitzjagd auf andere Wildarten	<ul style="list-style-type: none"> Erfüllung der Abschusspläne 	<ul style="list-style-type: none"> u.U. Beunruhigung des Schwarz 	
			Drückjagd	<ul style="list-style-type: none"> Gezielte Beunruhigung und Bejagung, damit Reduzierung der Schwarzwildpopulation 	<ul style="list-style-type: none"> Gefahr der Seuchenverschleppung der Kernzone heraus Drückrichtung ist mit der Bewegungsrichtung des Schwarz nicht immer identisch, windabh Muss revierübergreifend erfolgt, Absprachen sind notwendig 	
			Einsatz von Drohnen	<ul style="list-style-type: none"> Aufspüren von Kadavern Aufspüren von Rotten in großen Schlägen, die nicht einsehbar sind 	<ul style="list-style-type: none"> Kosten Sachkenntnisse notwendig 	
			Einsatz von Wärmebildkameras	<ul style="list-style-type: none"> Aufspüren von Rotten Charakterisierung der Population Gezielte Bejagung 	<ul style="list-style-type: none"> Waren bei KSP nicht zielführend (Wildschweine im Winter wenig zu sehen aufgrund dicker Isolierung) Sehr hohe Kosten für geeignete Kameras 	
			Einsatz von Hubschraubern	<ul style="list-style-type: none"> Aufspüren von Rotten in unwegsamem Gebieten (z.B. Schilfgürtel), Charakterisierung der Population, gezielte Bejagung 	<ul style="list-style-type: none"> Kosten Starke Beunruhigung des Wildes, unkontrollierte Flucht 	



ASP-Früherkennung

Was ist zu tun, wenn Fallwild gefunden wird?

Ein Eintrag der Afrikanischen Schweinepest (ASP) führt aufgrund der hohen Sterblichkeit (ca. 90 %) in allen Altersklassen zu einem vermehrten Auftreten von Fallwild. Die Untersuchung tot aufgefundener Wildschweine ist somit eine wichtige Säule der Früherkennung.



(Fotos: Edvins Oļševskis, Lettland)

Was ist zu tun, wenn Fallwild gefunden wird?

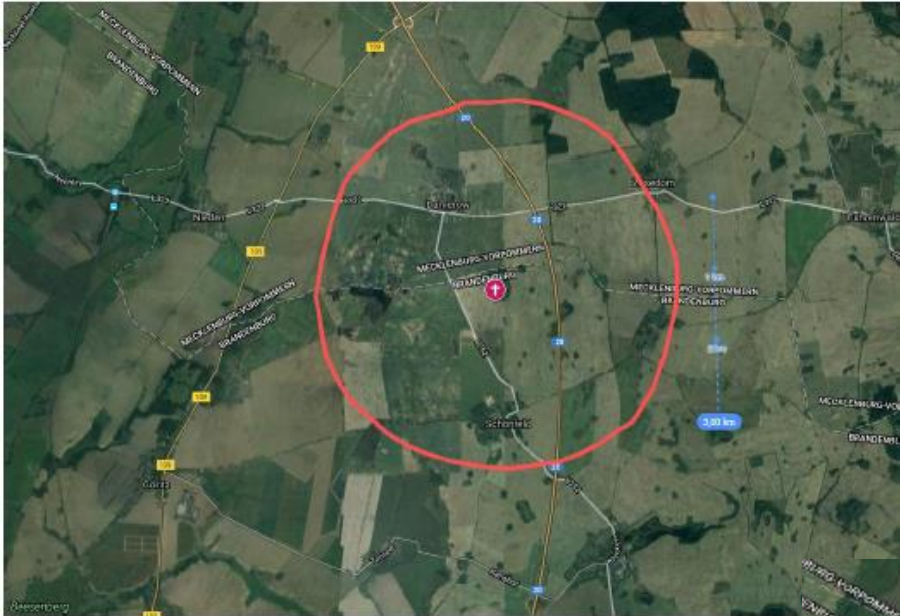
- Der Fund von Fallwild ist der zuständigen Behörde (**Veterinäramt**) **anzuzeigen**. Dies sollte im Regelfall durch einen Anruf erfolgen. Über die Erweiterung der Tierfund-App sollte diskutiert werden. Die Markierung und Georeferenzierung der Fundstelle erleichtert das weitere Vorgehen. Ggf. Foto der Fundstelle und des Tierkörpers (ggf. über die App übermitteln).

<https://www.fli.de/de/aktuelles/tierseuchengeschehen/afrikanische-schweinepest/>

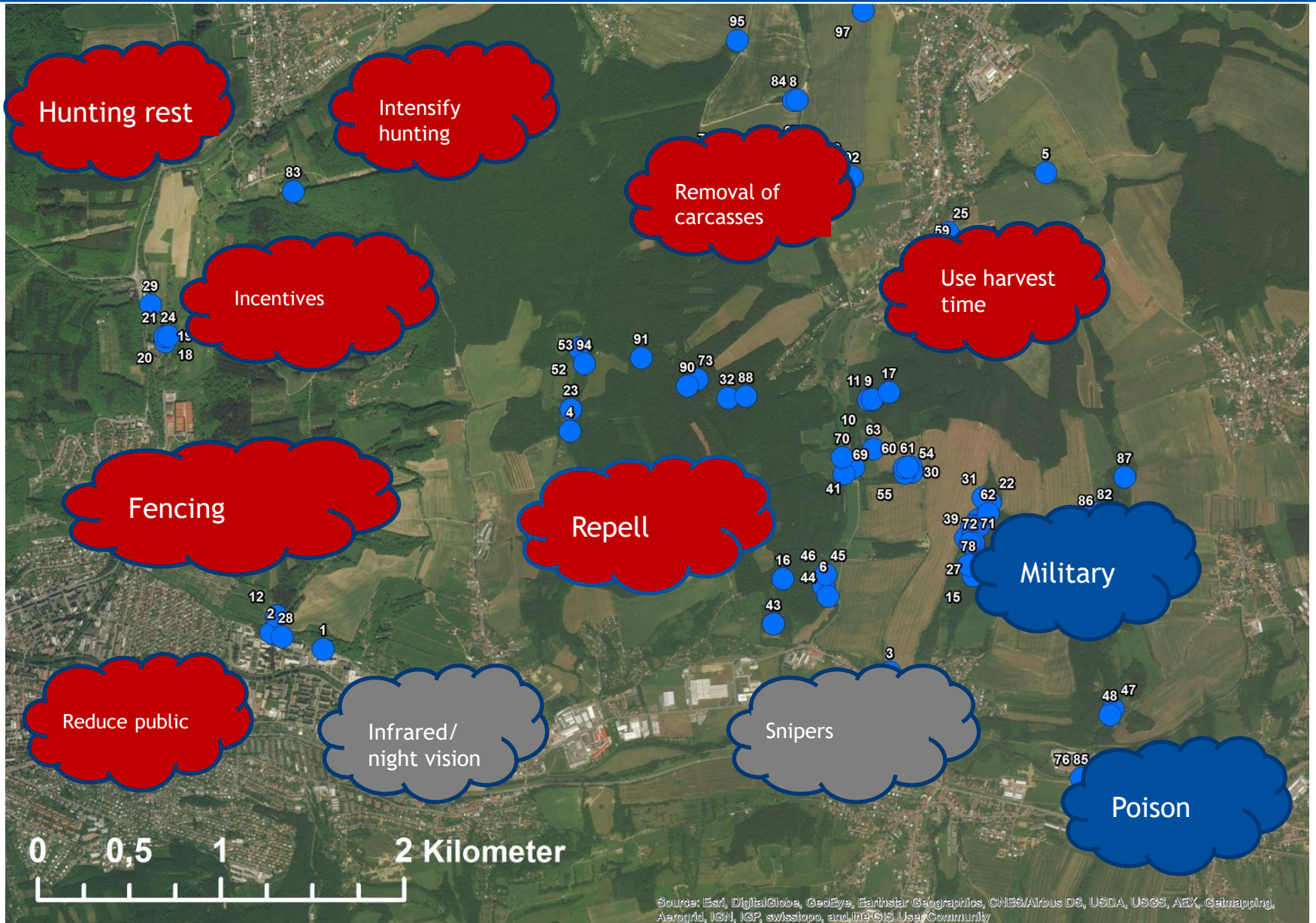


Nice and very, very smart...









ASF control in the European Union



- **Suspicious and outbreaks have to be notified!**
- Strict and legal binding control measures
- **So far, no vaccine or treatment!**
- Integral part of all control measures is an early detection system (detection of clinical signs and a rapid laboratory diagnosis)
- The affected holding and the contact holdings must be culled
- *Stand-still*
- Restriction zones are implemented (3 km control zone, 10 km surveillance zone)
- Trade with pigs, pork and pork products comes to a rest

General regulations, refers to the Diagnostic Manual for details

- lays down the minimum Community measures for the control of ASF
 - presence or the suspected presence of ASF is compulsorily and immediately notifiable
 - all outbreaks/cases/suspicious are investigated
- Measures in case of a suspicion
- **Measures in case of a confirmed outbreak or case**
- Measures in contact holdings and epidemiological inquiries
- Establishment of protection and surveillance zones and control measures therein
- Cleaning and disinfection
- Measures that are taken to lift restrictions and repopulation
- Special cases (suspicion at slaughterhouses/ASF in wild boar)
- Vector control, vaccines, etc.

Details on control measures

- provides guidelines and minimum requirements on diagnostic procedures, sampling methods and criteria for the evaluation of the results
- establishes minimum bio-safety requirements and quality (lab/transport)
- principles and applications of laboratory tests

Important chapters

- Guidelines on main criteria to be considered for the recognition of a holding as an ASF suspected holding
- Checking and sampling procedures
- General procedures and criteria for collection and transport of samples
- Principles and use of virological and serological tests and evaluation of their results
- Minimum safety requirements for ASF laboratories

Exemplary measures from the German legislation:

In an affected holding:

- All pigs are culled
- Meat, meat products, semen, ova and embryos are destroyed
- If necessary, ticks will be collected and tested (if present)
- Signs will be put at entrances
- Dogs and cats have to be kept indoors

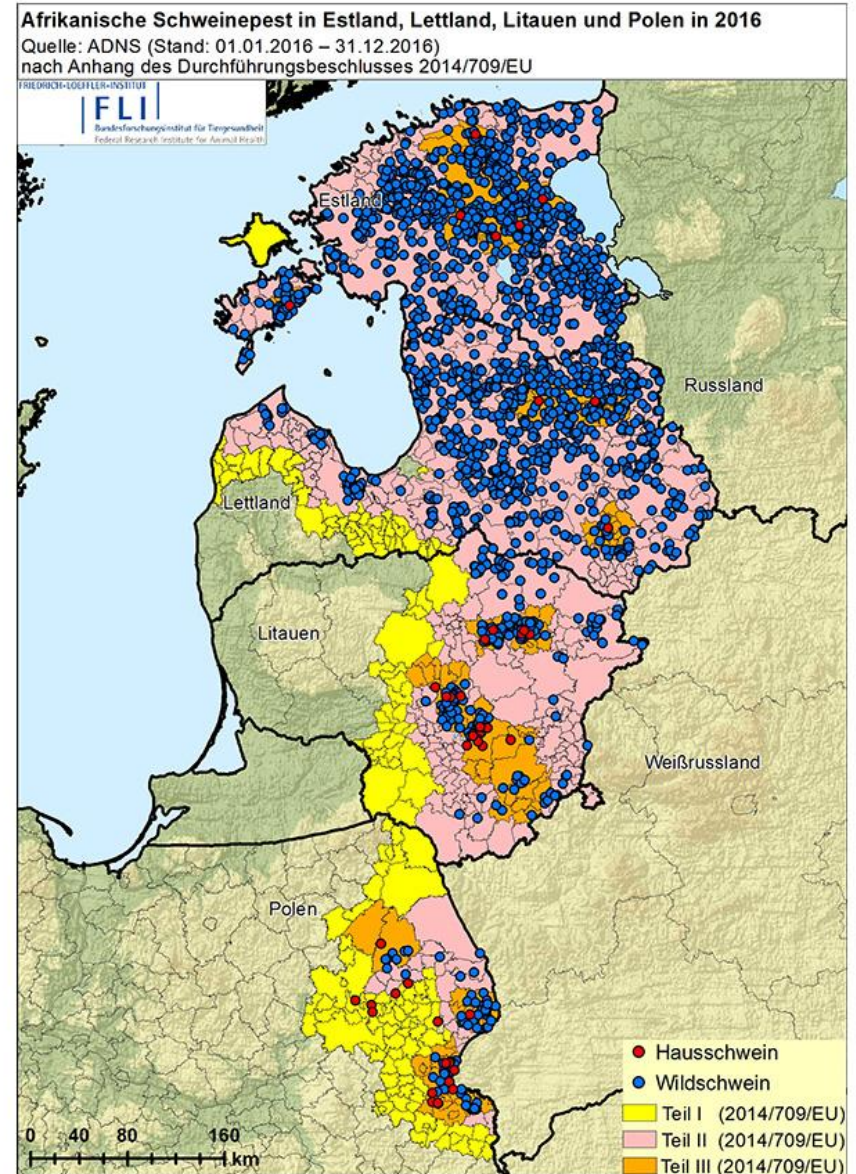
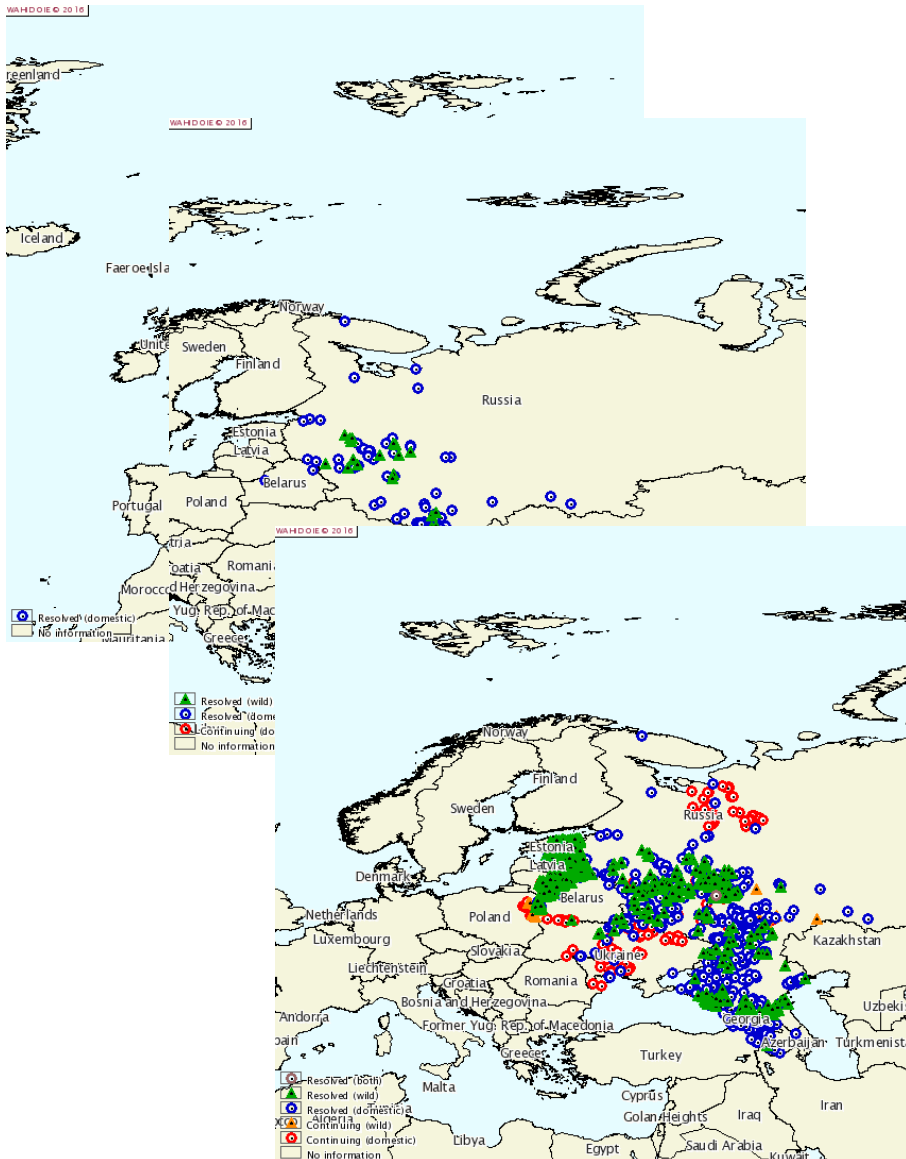
Control zone:

- Clinical examination and census of pigs in the control zone within 7 days
- Laboratory diagnosis in suspect and outbreak holdings
- Wild boar shot and found dead are tested
- Movement restrictions (pigs may not leave the premise)
- home slaughter is forbidden
- Artificial insemination does not take place
- Restrictions for fairs and markets
- Cleaning and disinfection

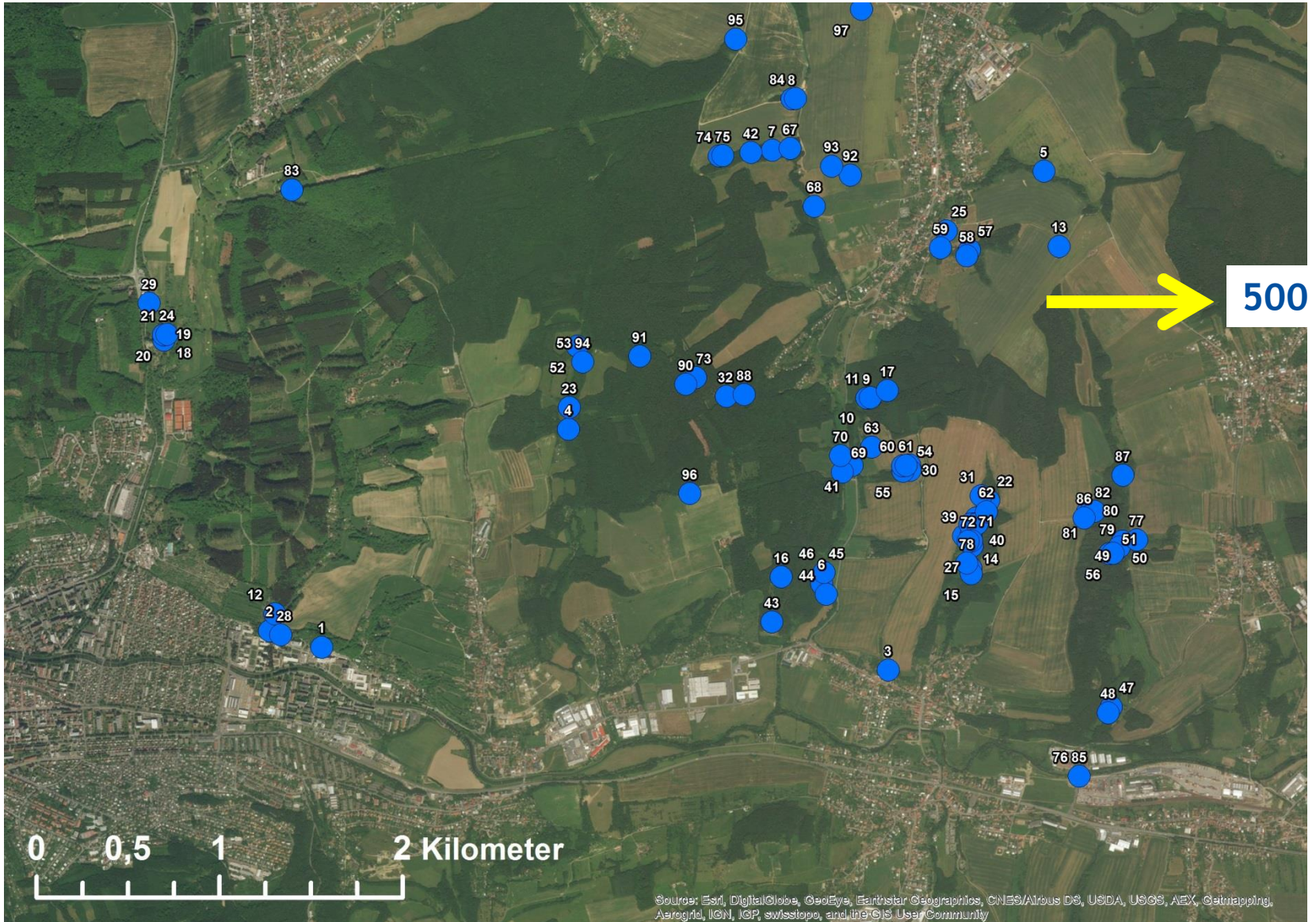
Surveillance zone:

- Testing of sick and dead animals
- Movements only after approval and check

Compartments/zones



ASF in Czech Republic



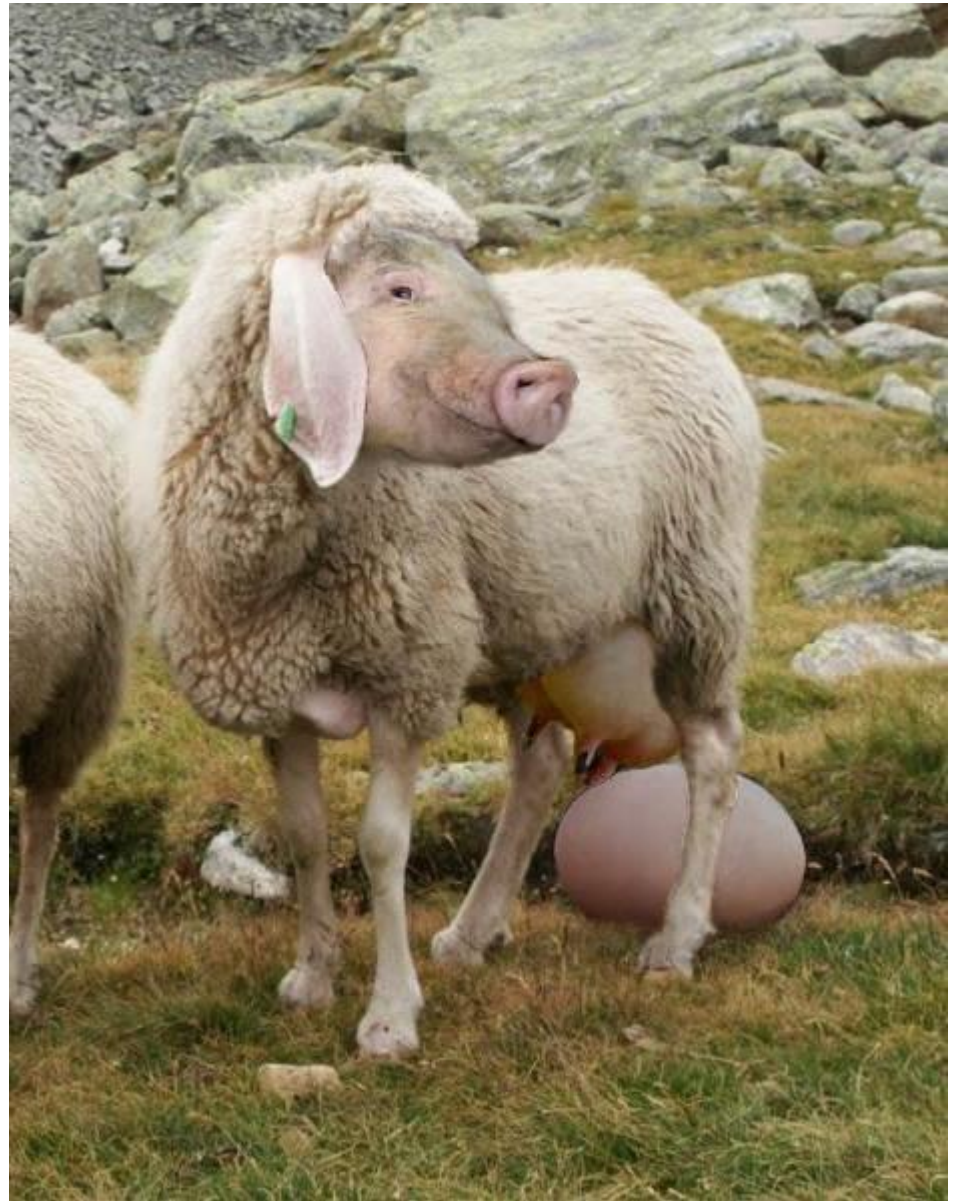
Graphik: FLI, IfE

- establish an expert group including veterinarians, hunters, wild life biologists and epidemiologists. The expert group shall assist the competent authority in:
 - studying the epidemiological situation and defining an infected area in accordance with Article 16(3)(b),
 - establishing appropriate measures to be applied in the infected area in addition to the ones referred to in points (b) and (c); these measures may include suspension of hunting and a ban on feeding feral pigs,
 - drawing up the eradication plan to be submitted to the Commission in accordance with Article 16,
 - carrying out checks to verify the effectiveness of the measures adopted to eradicate African swine fever from the infected area;
- place under official surveillance pig holdings in the defined infected area, and shall in particular order that: ... census, testing, etc.
- arrange that all feral pigs shot or found dead in the defined infected area are inspected by an official veterinarian and examined for African swine fever in accordance with the diagnostic manual. Carcasses of all animals found positive shall be processed under official supervision.
- ... define genotype of the virus isolate



Von unbekannt - BSB München, cgm 19, f. 50v, Ausschnitt, Bild-PD-alt,
<https://de.wikipedia.org/w/index.php?curid=615232>

Jack of all trades device?
Grail of control measures?



- Perform risk assessment to prioritize efforts
- Inform and train relevant groups and stakeholders
 - workshops
 - leaflets
 - regulations/prohibitions
- Reasonable risk communication
 - e.g. involvement of mass media
- Think about compensation schemes

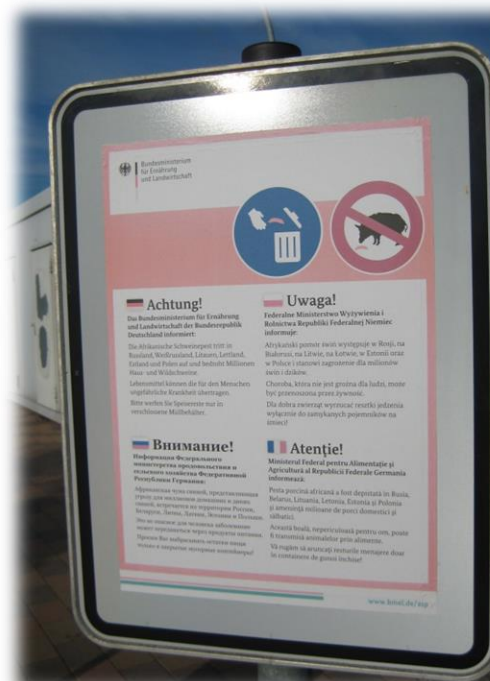
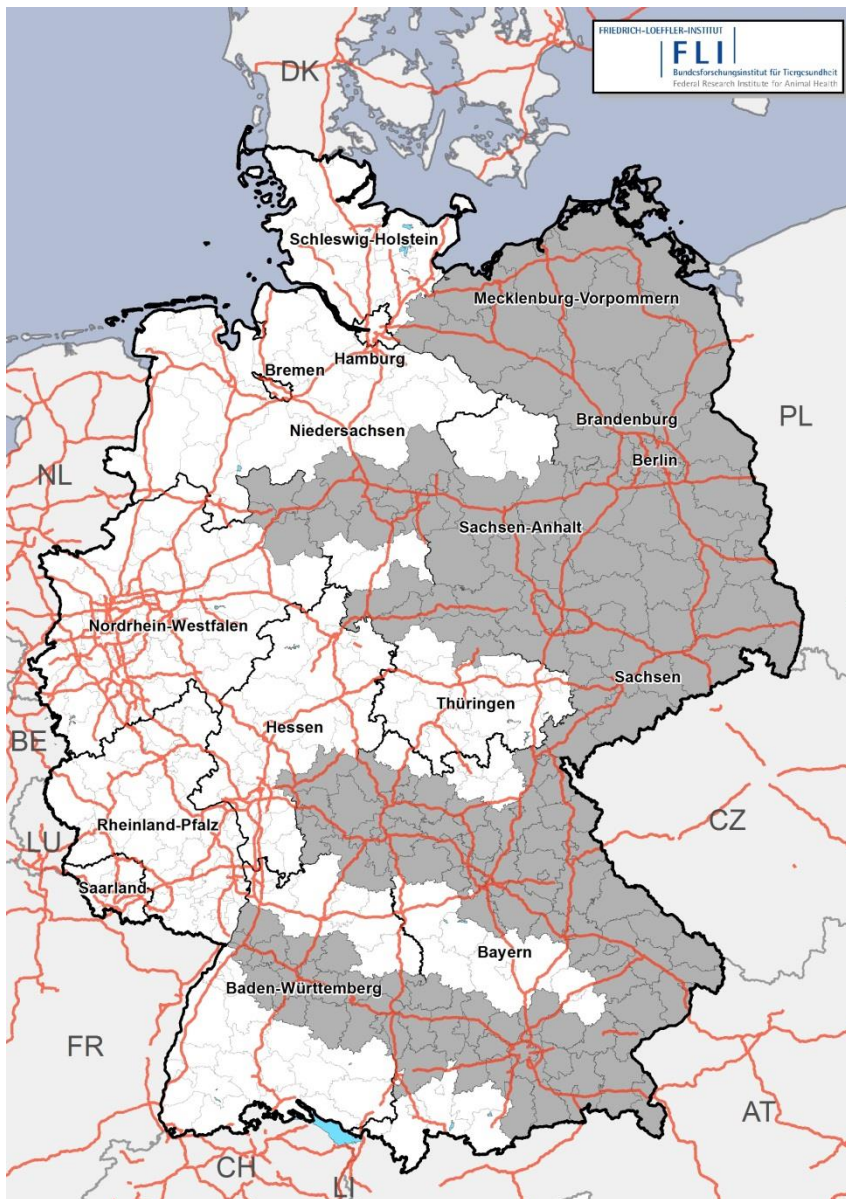
Try to understand introduction risks and disease dynamics

Qualitative Risikobewertung

zur Einschleppung der
Afrikanischen Schweinepest aus
Verbreitungsgebieten in Europa
nach Deutschland



Raise awareness based on risk assessment







<p>Achtung! Das Bundesministerium für Ernährung und Landwirtschaft der Bundesrepublik Deutschland informiert:</p> <p>Seit 2014 breitet sich die hochansteckende Afrikanische Schweinepest in Europa aus und bedroht Millionen Haus- und Wildschweine. Lebensmittel können diese für den Menschen gefährliche Krankheit übertragen. Bitte werden Sie dabei Spurensuche nur in verschlossenen Müllbehältern!</p>	<p>Uwaga! Federalne Ministerstwo Wyżywienia i Rolnictwa Republiki Federalnej Niemiec informuje:</p> <p>Afrykański powrót zwia wywołuje w Europie, na Białym, na Łódzku, na Karkoniu, w Łodzi oraz w Polsce i Europie zagrożenie dla milionów zwierząt domowych.</p> <p>Choroba, która nie jest groźna dla ludzi, może być przenoszona przez żywność.</p> <p>Do dobra regionalnego zwierząt należy podjąć wyjątkowo do samych krajów powstrzymanie na terenie!</p>
<p>Внимание! Информация Федерального министерства продовольствия и сельского хозяйства Федеративной Республики Германия:</p> <p>Африканская свинья, представляющая угрозу для миллионов домашних и диких свиней, распространяется по территории Европы.</p> <p>Важно предупредить распространение болезни, которая может представлять опасность для человека.</p> <p>Важно предупредить распространение болезни, которая может представлять опасность для человека.</p>	<p>Atentie! Ministerul Federal pentru Alimentație și Agricultură al Republicii Federație Germania informează:</p> <p>Peze periculoasă afecționează în Europa, în Italia, în Franța, în Ungaria, în Polonia și în România milioane de porcini domestici și sălbatici.</p> <p>Acesta nu este periculoasă pentru om, poate fi transmisă animalelor prin alimente.</p> <p>Se recomandă să se evite alimentele care conțin carne de porc în țările!</p>
<p>Pozor! Społeczne ministerstwo pro wyżywienie i rolnictwo Republiki Federalnej Niemiec informuje:</p> <p>Od roku 2014 w Europie rozprzestrzenia się niezwykle zakaźna choroba – afrykański powrót zwia. Taka choroba, która może być dla człowieka niebezpieczna, może być przenoszona przez żywność. Odwiedzając pensje, pensje, drukuj potrawy powstrzymać się od jedzenia mięsa zwierząt domowych i dzikich!</p>	<p>Atentie! Ministerul Federal al Alimentației și Agriculturii al Republicii Federație Germania informează:</p> <p>De la anul 2014 se răspândește în Europa peza periculoasă extrem de contagioasă care amenință milioane de porci (domestici și sălbatici). Prin alimentare se poate transmite această boală care pentru om nu este periculoasă.</p> <p>Se recomandă să se evite alimentele care conțin carne de porc în țările!</p>
<p>Внимание! Информация Федерального министерства продовольствия и сельского хозяйства Федеративной Республики Германия:</p> <p>С 2014 года в Европе распространяется очень заразная африканская чума свиней, представляющая угрозу для миллионов домашних и диких свиней. Эта не опасная для человека инфекция может передаваться через продукты питания.</p> <p>Важно предупредить распространение болезни, которая может представлять опасность для человека.</p>	<p>Uwaga! Federalne Ministerstwo Żywności i Rolnictwa Republiki Federalnej Niemiec informuje:</p> <p>Od roku 2014 na terenie Europy rozprzestrzenia się w wysoki stopniu zakaźna choroba – afrykański powrót zwia – stanowiąca zagrożenie dla milionów sztuk hodowlanej trzody chlewnej oraz pogłowia dzikich. Ta infekcyjna zagrożenie dla człowieka choroba może być przenoszona także przez żywność. Dlatego powstrzymać się od jedzenia mięsa zwierząt domowych i dzikich!</p>

home/de/asp

Thanks for you attention!

