



Organisation
Mondiale
de la Santé
Animale

World
Organisation
for Animal
Health

Organización
Mundial
de Sanidad
Animal

**Assessing Social, Ecological and Economic Consequences of
Free-Ranging Swine Diseases;
Gauging Public Attitudes Toward the Presence and Disease
Risks from Free-Ranging Swine**

D. Rassow

International Workshop on Feral Swine Disease and Risk
Management
18 – 20 Nov 2014, Fort Collins, Colorado, USA



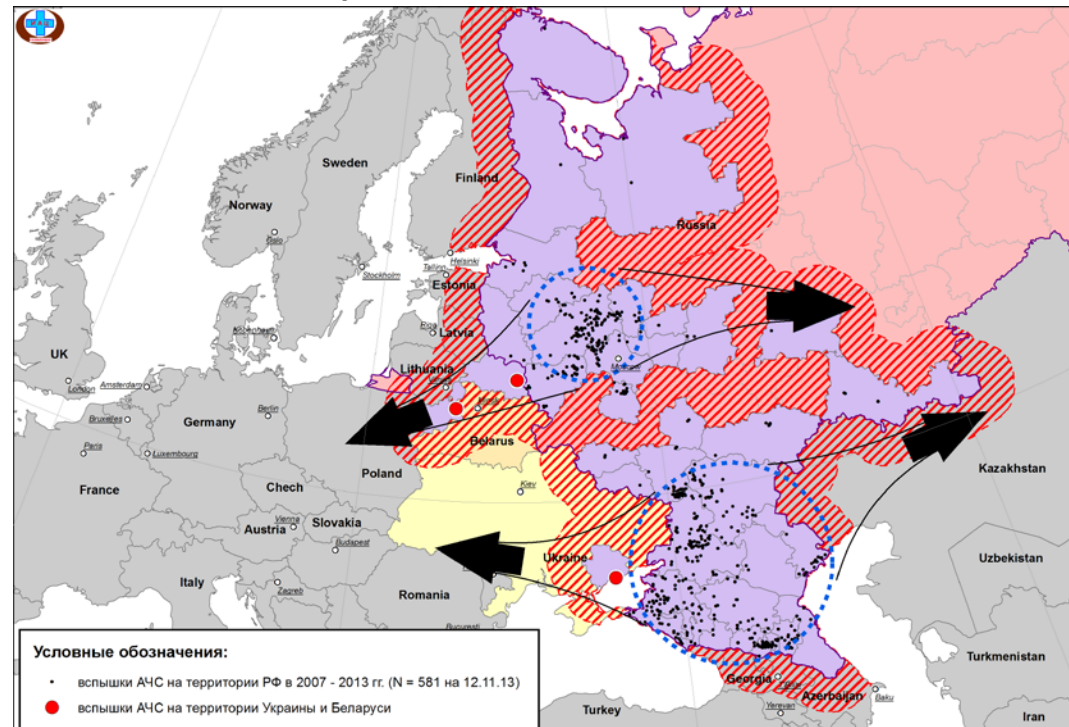
- Socio-economic effects
- Ecological consequences
- Zoonotic potential
- Conservation issues
- Public attitude

Socio-economic effects – Example CSF

- Past CSF scenarios in Europe closely linked to virus in wild boar.
 - Serious economic losses and structural consequences for the sector and regions
 - Costs mostly related to stand still measures
 - Strong fears on all continents
- Australia estimated up to 37% losses of regional income in case of CSF; concerns of Brazil

Socio-economic effects – Example ASF

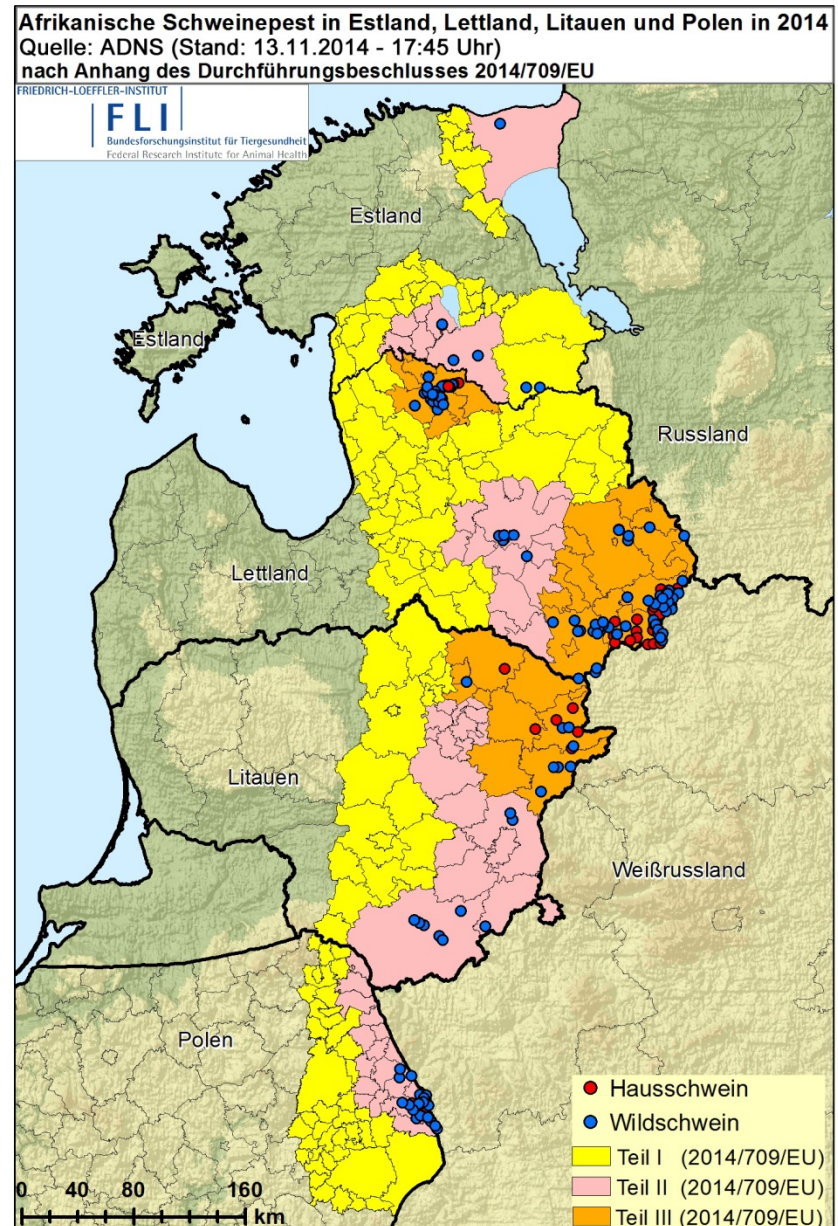
- According to Russian veterinary officials total economic loss from ASF between 2007-2012 amounted to 300 billion rubles (about one billion US \$); over 600.000 pigs were destroyed in the course of eradication efforts
- “Gloomy prognosis”



Nov 13th 2014

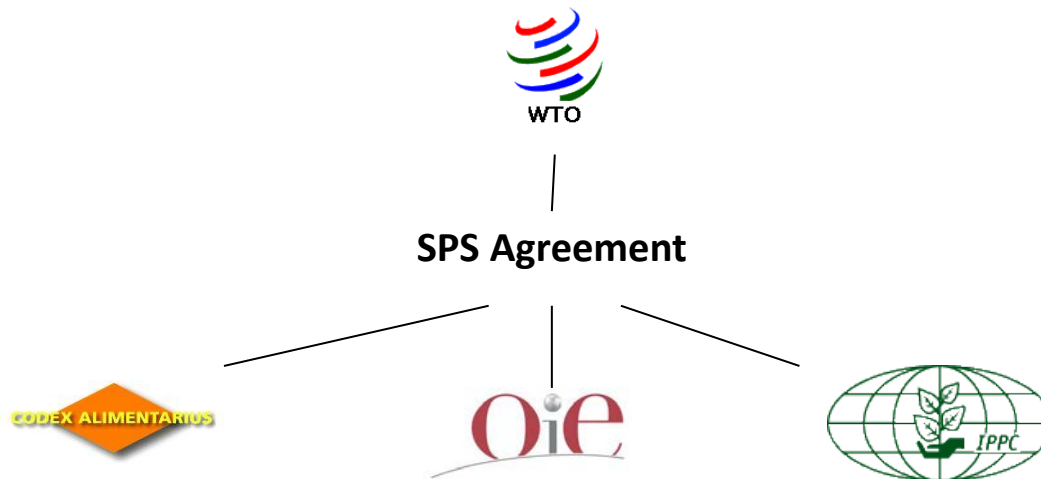
ASF Eastern Europe

- 176 wild boar cases
- 40 infected domestic (small) holdings.



Socio-economic effects – Trade concerns

- Science-based standards address trade concerns
- OIE mandated by the WTO SPS Agreement
- Code covers in principle international trade, disease surveillance/control and the Veterinary Services



Socio-economic effects – OIE Standards

- Terrestrial Animal Health Code
- Aquatic Animal Health Code
- Manual of Diagnostic Tests and Vaccines for Terrestrial Animals
- Manual of Diagnostic Tests for Aquatic Animals



Socio-economic effects – Example Code

- A Member Country should not impose bans on the trade in *commodities* of domestic and *captive wild* pigs in response to a *notification of infection* with CSFV in *wild* and *feral* pigs provided that [certain measures like surveillance, separation between between domestic and free-ranging pigs, awareness programs ...] are implemented.”
- Code concept of “safe commodities”

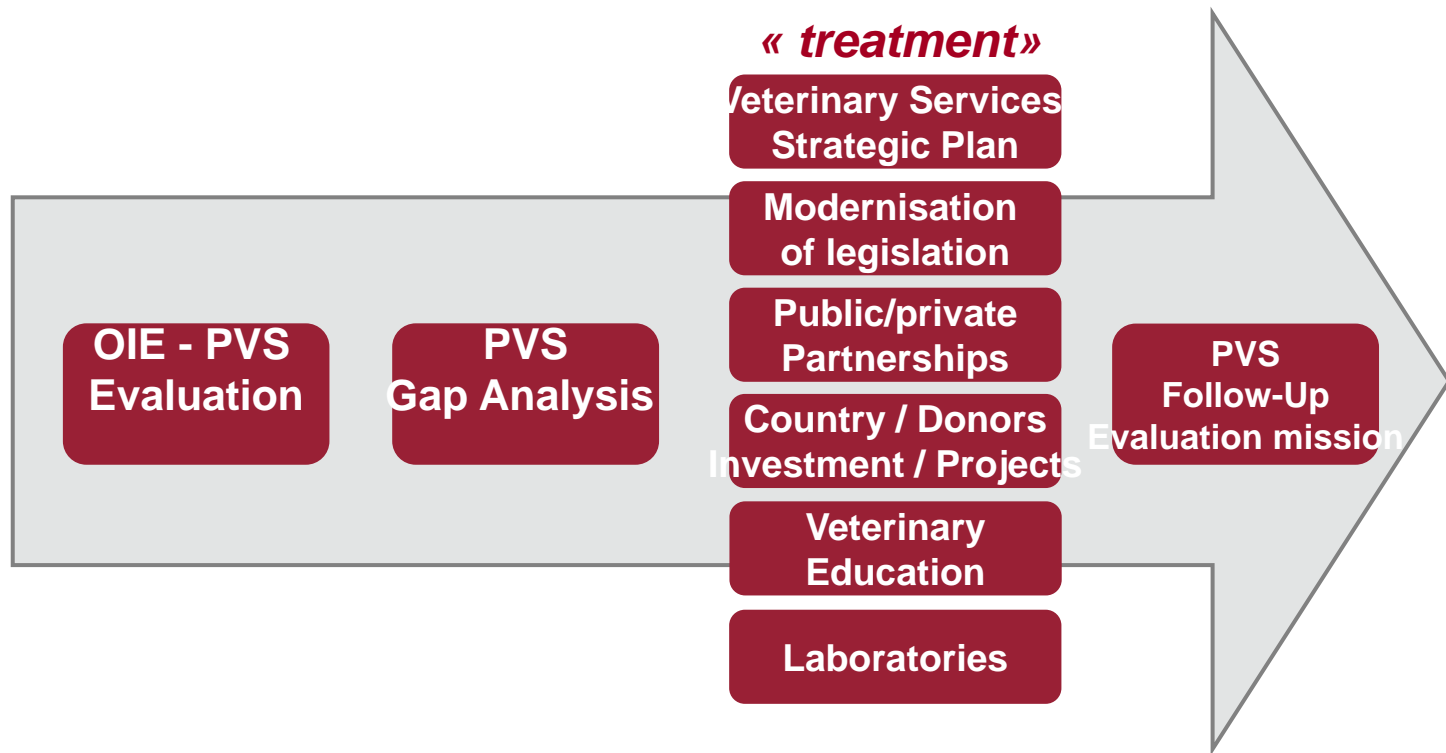
Socio-economic effects – Example trade

- Compliance with the Code
- “Safety guarantees”
- Importing countries asking “disease freedom” rather than OIE’s “safe trade recommendations”
- Concerns that wild/feral pig disease will not only complicate eradication but also proof of disease freedom to trading partners

Socio-economic effects – Country status

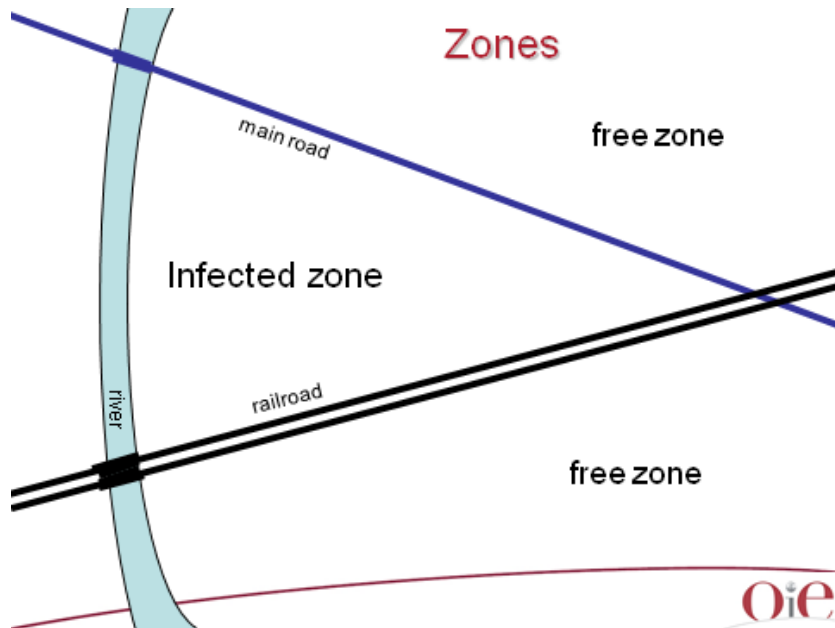
- OIE has SPS mandate to officially recognise disease-and pest-free areas for AHS, FMD, BSE, PPR, CSF and CBPP
- CSF evaluations currently underway.
- Demonstrating wildlife monitoring is a difficult element in country status applications

- [Monitoring wildlife is a critical competency in the OIE PVS Tool. PVS measures the performance and quality of Veterinary Services on a voluntary basis].



Socio-economic effects – zoning and compartmentalisation

- Two additional tools to minimise socio-economic consequences



Ecological effects I

- Disease agents can be transmitted between different swine populations – domestic or wild – in both directions and in many ways – directly and indirectly
- Different methods to control wild/feral pigs like hunting or professional pest control
- Different methods to try to contain wild/feral pigs like fencing or artificial feeding
- Successful methods?
Eg Drastic hunting and fencing considered of questionable value in reducing risk of ASF spread

Ecological effects II

- Lack of information about impact of feral pig disease on endangered species (Brazil)
 - ✓ Artiodactyla species (peccaries, deer):
susceptible for Brucella, Leptospirosis, Aujeszky, FMD, CSF
 - ✓ Carnivorous species (jaguar, puma):
Toxoplasmosis

Zoonotic issues I

- Recent events have generally put more focus on wildlife as reservoir for zoonoses
- High zoonotic potential in swine diseases like Brucellosis, Toxoplasmosis, Leptospirosis and many others.
- Zoonotic consequences arising from disease in tree-ranging pigs difficult to predict

Zoonotic issues II

- Trichinellosis quite often reported in relation to wild boars
- Food safety concern with considerable public attention
- Role of “bushmeat”, notably in Africa
- Brazilian Government has forbidden the trade of feral swine meat
- “One Health” approach

Conservation issues

- Wild or feral pigs per se not likely endangered species
- Reintroduction of wild boars for biodiversity reasons? (Example Denmark)
- Impact of feral pig diseases on endangered species (Example Brazil); mentioned under ecological effects

Public attitude I

- Perception of stake-holders and their economic interests
- Differences between regions where *Sus scrofa* is valued and hunted as endemic species (eg Europe) and regions where wild/feral pigs are a damaging if not invasive species (eg AUS-NZ-parts of US).
- Role of hunters in early disease detection and population control

Public attitude II

- Perception of professional pest control methods e.g. poison baiting, aerial shooting, trapping (animal welfare issues)
- Perception of killing animals for disease control reasons in general
- Recreational and commercial hunting
- Public awareness of real versus perceived disease risk and the need for strict biosecurity

Summary

- Strong to devastating socio-economic effects from free-ranging swine disease on agriculture and food business
- Never underestimate wild/feral swine diseases in trade
- Ongoing debate about pros and cons of different measures to reduce ecological effects
- Zoonotic potential to a certain extent
- Public attitude towards free-ranging swine disease will largely depend on level of awareness of both risk and the adopted measures of protection

Thank you for your attention



Organisation mondiale
de la santé animale

World Organisation
for Animal Health

Organización Mundial
de Sanidad Animal