



# Better Training for Safer Food *Initiative*

## ***AFRICAN SWINE FEVER SURVEILLANCE AND WILDLIFE MANAGEMENT***

## **Awareness principles, early warning systems and early detection of ASF**

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*This presentation is delivered under contract with the Consumers, Health, Agriculture and Food Executive Agency (<http://ec.europa.eu/chafea>). The content of this presentation is the sole responsibility of Opera S.u.r.l., the Istituto Zooprofilattico Sperimentale Lombardia e Emilia Romagna and the State Food and Veterinary Service of Latvia and it can in no way be taken to reflect the views of the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union will not be responsible under any circumstances for the contents of communication items prepared by the contractors.*

# BTSEF

**Belgrade, Serbia 6-8/11/2018**

# Key elements for the management of ASF:

- PREVENTION (preparedness, bio-security)
- EARLY DETECTION (surveillance)
- EARLY REACTION (eradication)

# Awareness

Animal diseases are transmitted through direct contact between animals or between animals and humans. Transmitted also through water and air systems, vectors such as insects, etc.

Disease agents may also be contained in food and other products of animal origin

Various other objects such as transport vehicles, equipment, fodder, hay and straw may diffuse disease agents



**Therefore, awareness among «all players» about the risks - all paths of infection and material involved and preventive measures are crucial!**

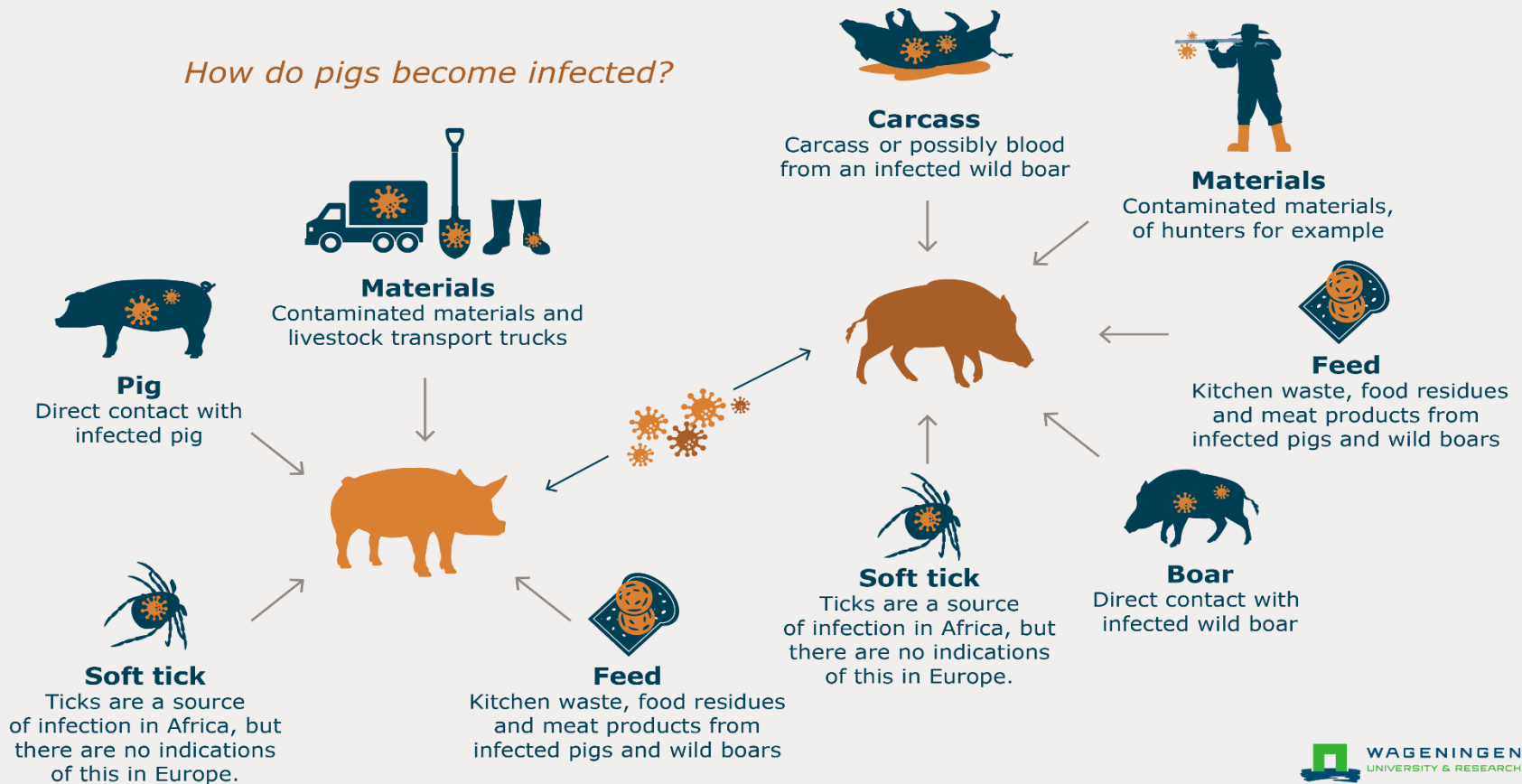


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# African Swine Fever

*How do wild boars become infected?*

*How do pigs become infected?*



# The EU Animal Health Law

REGULATION (EU) 2016/429 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health

- ***Overarching legal framework, laying down harmonized principles across the sector***
- ***It is also a key output of the Animal Health Strategy 2007-2013, "Prevention is better than cure"***



# The EU Animal Health Law

- simpler and clearer rules focus on key priorities: **preventing and eradicating disease**
- **clarified responsibilities** for farmers, vets and others dealing with animals
- better **early detection & control of animal diseases, including emerging diseases** will help to reduce the occurrence and effects of animal epidemics

Several delegated and implementing acts will be adopted by the Commission until April 2019 to make the new rules applicable.



## Main legislation in force on ASF in EU

**Council Directive 2002/60/EC** of 27 June 2002 laying down specific provisions for the control of **African swine fever**

**Commission Decision 2014/709/EU** of 9 October 2014 concerning animal health control measures relating to ASF in certain Member States

- **SANCO/7138/2013** - Guidelines on surveillance and control of ASF in feral pigs and preventive measures for pig holdings
- **SANCO/7112/2015** - Principles and criteria for geographically defining ASF regionalisation
- **SANCO/7113/2015** - **ASF Strategy for Europe**

## Awareness in *ASF strategy*\* (1):

2.1.2. Minimum biosecurity requirements: (...)

c) Biosecurity plan approved/recommended by veterinary services according to the profile of farm and national legislation. This biosecurity plan should include, but is not limited to: (...) **Dedicated recurrent awareness programme** for all workers on the farm.

2.1.4. Recurrent **awareness campaigns** to target farmers (especially from NCF) should be performed at least for informing about the strategy and the role of the farmer so **to encourage their full involvement** in implantation of biosecurity rules, **rapid reporting and participation in surveillance.**

*\*The ASF Strategy for the EU has been developed with the aim of establishing harmonized measures in response to the epidemiological situation with regard to African swine fever (ASF) in the EU*



## Awareness in *ASF strategy*\*(2):

### 3.1.7. Recurrent awareness campaigns:

- a) Should be foreseen **for hunters** for informing about the new strategy and the intended goals so to encourage the participation of hunters in the strategy. Emphasis should be given to the need **to respect biosecurity measures during hunting and the restrictions for movement of wild boar products**.
- b) Specific **informative material** should be displayed at the **main transit** areas (ports, airports and major communication axis) informing hunters and travelers of the bans imposed by the ASF regionalization.

*\*The ASF Strategy for the EU has been developed with the aim of establishing harmonised measures in response to the epidemiological situation with regard to African swine fever (ASF) in the EU*



## Awareness in CID 2014/709\* Art 15a (3):

### Information obligations of the Member States (MS):

1. MS concerned shall ensure that passenger transport operators, including airport and port operators, travel agencies (including hunting trip organizers) and postal services operators are required to draw the attention of their customers to the control measures laid down in this Decision, in particular by providing information on the main prohibitions laid down in this Decision to travelers moving from the areas listed in the Annex to this Decision (...).

For that purpose, the **MS concerned shall organize and carry out regular public awareness campaigns** to promote and spread information on the control measures.

2. All MS shall ensure that on all major land infrastructure routes, such as international communication roads, and related road networks, **appropriate information on the risks** of the transmission of ASF and on the control measures are brought to the attention of all travelers (...).

3. The MS concerned shall coordinate their efforts to ensure that the **information referred to in paragraph 1 is effectively disseminated** by the transport operators and postal services operators to specifically identified target audiences.

\* COMMISSION IMPLEMENTING DECISION of 9 October 2014 concerning animal health control measures relating to **African swine fever** in certain Member States and repealing Implementing Decision 2014/178/EU.

# BTSEF

## Examples of targeted awareness programs and measures





## Target audiences

Veterinarians

NGO's

Backyard keepers

Colleagues

Hunters

Travellers

Scientists

General public

Stakeholders

Politicians

Industry

**... Do we need different messages?  
Keep the audience in mind!**

## Raising awareness

Why are you communicating?

What exactly do you want to achieve?

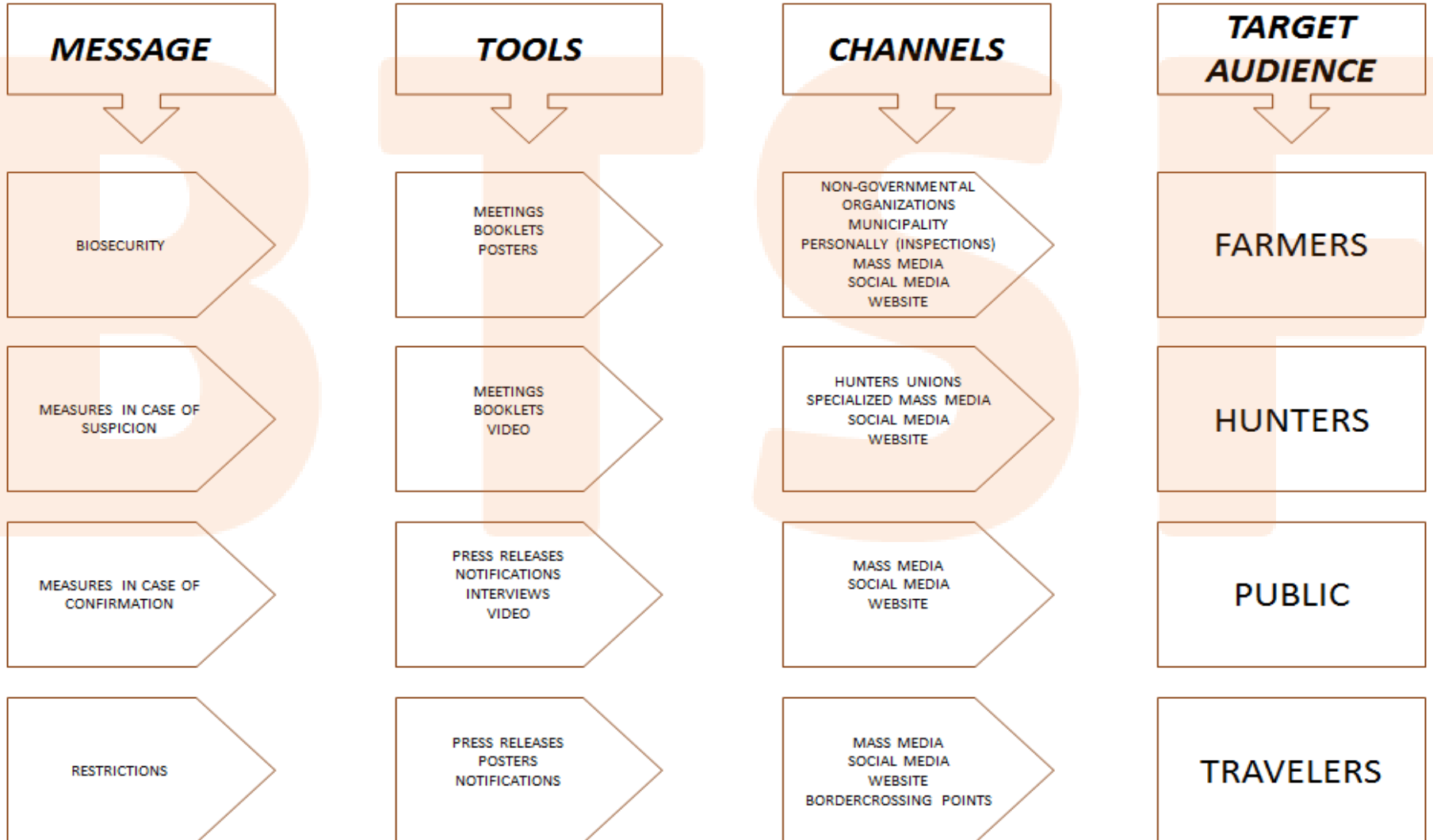
*Define:*

- Key message (What)
- Result (Outcome)

*Look for the best way how and by which means to deliver these messages!*



# Raising awareness





BIOSECURITY  
ACTION IN CASE OF  
SUSPICION, OUTBREAK

MEETINGS  
BOOKLETS  
POSTERS  
VIDEO

NON-GOVERNMENTAL  
ORGANIZATIONS  
MUNICIPALITY  
PERSONALLY (INSPECTIONS)  
MASS MEDIA  
WEBSITE

FARMERS

YouTube search results for "Pārskats un veterinārais dienests". The page shows a grid of video thumbnails related to veterinary services and farm management.

## ĀFRIKAS un KLASISKAIS CŪKU MĒRS

### АФРИКАНСКАЯ и КЛАССИЧЕСКАЯ ЧУМА СВИНЕЙ

**KAS JUMS JĀZINA!** **ЧТО ВАМ НУЖНО ЗНАТЬ!**

**VAI KAS CŪKU FUNGUSĀ?**  
**SAKARĀBĪBA AR PRAKTIZĀŠO VETERINĀRĀRSTU**  
**PĀRTIKAS UN VETERINĀRĀ DIENESTA PĀRVALDES**  
**ISI PAR BIOLOGISKO DROŠĪBU DZĪVNIEKU NOVĒTNES**

**ĒGĀMĀJOTIES DZĪVNIEKUS NO CĪTAS NOVĒTNES VAI IEVĒDOT TOS NO CĪTAS VALSTS**

**ĒGĀMĀJOTIES DZĪVNIEKU BIOLOĢISKO MATERIĀLU**

**SADARĪBĀ AR PRAKTIZĀŠO VETERINĀRĀRSTU**

**PĀRTIKAS UN VETERINĀRĀ DIENESTA PĀRVALDES**

**ISI PAR BIOLOGISKO DROŠĪBU DZĪVNIEKU NOVĒTNES**

## UZMANĪBU

KAS JĀĒVĒRO, LAI PASARGĀTU CŪKU NOVĒTNI NO ĀFRIKAS CŪKU MĒRA (ĀCM) UN CĪTĀM CŪKU INFĒKCIJAS SLIŅĪBĀI

1. Neatļaujiet cūkai iet uz lauksaimniecības teritoriju, kur tā ir aizliegta.

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25. Neatļaujiet cūkai iet uz lauksaimniecības teritoriju, kur tā ir aizliegta.

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29. Neatļaujiet cūkai iet uz lauksaimniecības teritoriju, kur tā ir aizliegta.

30. Neatļaujiet cūkai iet uz lauksaimniecības teritoriju, kur tā ir aizliegta.

Screenshot of a website interface showing search results and navigation options. The page includes a search bar, a list of results, and various navigation links.



European Commission

HUNTING BIOSECURITY SAMPLING, CARCASS STORAGE, CARCASS DISPOSAL

MEETINGS BOOKLETS VIDEO

HUNTERS UNIONS SPECIALIZED MASS MEDIA SOCIAL MEDIA WEBSITE

HUNTERS

**Imedito mežacūku glabāšanai mednieki saņem zēsētavas**

Imedito mežacūku glabāšanai mednieki saņem zēsētavas. Šis raksts runā par mednieku bažām par dzīvnieku slimību izplatību un kādus pasākumus ņem, lai to novērstu.

**Medniekiem jānāk ne tikai medīt**

Medniekiem jānāk ne tikai medīt, bet arī rūpēties par dzīvnieku veselību un biosegurību. Raksts uzskaidro, kā mednieki tiek iesaistīti dzīvnieku slimību apkārtnē.

Video ar nosaukumu "Охотник, не допусти распространения Африканской чумы свиней в Латвию!". Video satur runātāju, kas runā par āfrikas čūmas vīrusa izplatības risku Latvijā.

YouTube kanāla "Pārītkas un veterinārais dienests" saraksts ar videoklipiem par dzīvnieku veselību un medniecību.

Website ar nosaukumu "Medniekiem Для охотников". Tiek publicēti raksti par medniecību, dzīvnieku veselību un biosegurību. Iekļauts arī PVD logo.



# When disease arrives...suddenly million questions appear

**Is this disease real?  
How to protect pigs?  
What is this disease?  
Can we vaccinate our animals?  
Can we hunt all wild boar?  
Why don't we build fence on the borders?  
Why we have to cull all pigs in a farm?  
Who is responsible for this and this?  
What disinfectants we have to use?  
Do we have trade, export restrictions?  
Is it safe to go to the forest to pick up  
mushrooms and berries?  
Who will pay for....?  
Who's business ASF is?  
Why me?  
...???**





## Contingency plans – a tool for disease awareness and preparedness

Permanent disease awareness and preparedness is important.

Contingency plans have proved to be a crucial tool for the successful control of disease emergencies - ***having specific, detailed and rapid procedures (instruction manuals) for the management of disease emergencies.***

They provide coordination of efforts of all parties involved and also include cooperation with the competent authorities of neighboring countries.

# Early warning systems

Early warning at national and international level



**Early detection** and a clear **chain of disease notification** and reporting are crucial for effective disease control.

To achieve an efficient response, **any suspicion or confirmation of an outbreak should be immediately notified** to the competent authority.



**Veterinarians are key actors** in the investigation of diseases and a key link between operators and the competent authority.

Veterinarians should be **notified by the operator (farmer)** in cases of abnormal mortalities, other serious disease problems, etc.

It is vital that a **the CA immediately notify the Commission** and other countries about an outbreak.

# ADNS – animal disease notification in the EU

Council Directive 82/894/EEC provides the legal basis for ADNS. The directive makes it compulsory for MS to notify outbreaks.

Information on outbreaks is sent automatically to all MS and the Commission

# ADNS (1)

## Objectives

The operational **objective of the system is to ensure rapid exchange of information** between the competent authorities in each Member States and the Commission on outbreaks.

The **system allows** the coordination and monitoring of outbreaks and enables Member States and Commission services **to take immediate measures** to prevent the spread of the diseases.

## ADNS (2)

- system created to register and document the evolution of the situation of important infectious animal diseases, including ASF.
- it is a management tool that ensures immediate notification of alert messages as well as detailed information about outbreaks.
- permits immediate access to information about outbreaks and **ensures implementation of early warning** which enables for a prompt response for controlling the epidemiological situation.
- The veterinary authorities in Member States can assess the risk.





## **As a consequence of (early) warning – notifications via ADNS:**

**The risk management is shared between EU Member States and Commission Services.**

**The action of the Commission consists in the adoption of Decisions through the Committee procedure.**



# World organization for animal health



## Early warning using OIE tools



- The 182 members of the OIE, each represented by the delegate
- The delegate nominates National Focal Points in different fields, including focal point for Animal disease notification



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# Immediate Notification of disease outbreaks to OIE



African swine fever,  
Belgium

Print  
Close

Information received on 14/09/2018 from Dr Jean-François Heymans, Director, Animal Health and Safety of Products of Animal Origin, Federal Agency for the Safety of the Food Chain (FASFC), Bruxelles, Belgium

## Summary

Report type	Immediate notification
Date of start of the event	09/09/2018
Date of confirmation of the event	13/09/2018
Report date	14/09/2018
Date submitted to OIE	14/09/2018
Reason for notification	Recurrence of a listed disease
Date of previous occurrence	1985
Manifestation of disease	Clinical disease
Causal agent	African swine fever virus
Nature of diagnosis	Laboratory (advanced), Necropsy
This event pertains to	a defined zone within the country
Related reports	<a href="#">Immediate notification (14/09/2018)</a> <a href="#">Follow-up report No. 1 (21/09/2018)</a> <a href="#">Follow-up report No. 2 (01/10/2018)</a> <a href="#">Follow-up report No. 3 (08/10/2018)</a> <a href="#">Follow-up report No. 4 (15/10/2018)</a> <a href="#">Follow-up report No. 5 (22/10/2018)</a> <a href="#">Follow-up report No. 6 (29/10/2018)</a>

## New outbreaks (2)

Outbreak 1	Etalle, Luxembourg					
Date of start of the outbreak	09/09/2018					
Outbreak status	Resolved (09/09/2018)					
Epidemiological unit	Forest					
Affected animals	Species	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered
	Wild boar:Sus scrofa(Suidae)		3	3	0	0

Outbreak 2	Etalle, Luxembourg					
Date of start of the outbreak	10/09/2018					
Outbreak status	Resolved (10/09/2018)					
Epidemiological unit	Forest					
Affected animals	Species	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered
	Wild boar:Sus scrofa(Suidae)		1	0		1

Summary of outbreaks	Total outbreaks: 2					
Total animals affected	Species	Susceptible	Cases	Deaths	Killed and disposed of	Slaughtered
	Wild boar:Sus scrofa(Suidae)		4	3	1	0
Outbreak statistics	Species	Apparent morbidity rate	Apparent mortality rate	Apparent case fatality rate	Proportion susceptible animals lost*	
	Wild boar:Sus scrofa(Suidae)	**	**	75.00%	**	

\*Removed from the susceptible population through death, destruction and/or slaughter

\*\*Not calculated because of missing information

## Epidemiology

Source of the outbreak(s) or origin of infection	Unknown or inconclusive
--	-------------------------

## Control measures

Measures applied	Surveillance outside containment and/or protection zone Surveillance within containment and/or protection zone Official disposal of carcasses, by-products and waste Control of wildlife reservoirs Zoning Vaccination permitted (if a vaccine exists) No treatment of affected animals
Measures to be applied	No other measures

## Diagnostic test results

Laboratory name and type	Species	Test	Test date	Result
Sciensano (National laboratory)	Wild boar	real-time PCR	13/09/2018	Positive
Sciensano (National laboratory)	Wild boar	real-time PCR	13/09/2018	Positive

## Future Reporting

The event is continuing. Weekly follow-up reports will be submitted.

## Map of outbreak locations





## Latvian example of ASF notifications via ADNS (EC) and WAHIS (OIE)

Within 24 hours:

- Notification on each new outbreak in domestic pigs (reported in both systems)
- Notification of each ASF case in wild boar to ADNS

Weekly disease reports:

- Wild boar cases are notified to the OIE on weekly basis



# Early detection of ASF



## DISEASE DETECTION

Surveillance is a key element of disease detection

Surveillance provide the **early detection** of diseases and **efficient notification** thereof, thereby enabling the sector concerned (farming, hunting) and the competent authorities to *implement disease prevention and control measures*

**Surveillance must be designed in such a way to ensure timely detection of a disease by collection and analysis of all information relating the disease**

It is essential that the competent authority have in place a system of surveillance for epidemic diseases

## Actors in disease detection (1)

**Persons (Operators)** working with animals are the cornerstone of any surveillance.

They observe their animals on a regular basis and are best positioned to detect disease symptoms - ***they have first-hand knowledge of the animals under their care.***

They should maintain up-to-date records of information which is relevant for assessing the animal health status, for traceability and for an epidemiological enquiry.



## Actors in disease detection (2)

**Veterinarians** ensure the early detection of diseases by carrying out diagnosis to rule out or confirm a disease

***Veterinarians play an important role in arising awareness about disease prevention and provide rapid response if disease is detected***

**Competent authorities for animal health** – apply appropriate measures, conduct surveillance - *to provide all these measures qualified personnel, facilities, equipment, financial resources are crucial*

**National diagnostic laboratories** – provide diagnostic and differential diagnostic procedures to confirm or rule out the presence of ASF

# Early Detection System (OIE)

Means a system for the timely detection and identification of an incursion or emergence of diseases in a country, zone or compartment.

An early detection system should **include the following characteristics:**

- *representative coverage of target animal populations*
- *ability to undertake effective disease investigation and reporting*
- *access to laboratories capable of diagnosing diseases*
- *training programme for veterinarians, livestock keepers etc.*
- *the legal obligation of private veterinarians to report to the Veterinary Authority*
- *A national chain of command*

## The impact of ASF varies in different regions of the world

The **surveillance strategy** needs to be tailored to the situation and take into account:

- pig production system
- presence of wildboar
- presence of *Ornithodoros* ticks
- ASF situation in adjacent territories
- etc

**Free status**

**Early Detection**

**Eradication/Endemicity**

# ASF Surveillance

Due to the characteristics of ASF the passive surveillance is most effective for Early detection



any cases where clinical signs or lesions are suggestive of ASF should be investigated without delay

An effective passive surveillance depends on reporting by operator (pig keeper) and thus requires trust to the veterinary authority and knowledge (awareness)

# Clinical Surveillance in domestic pigs

Is the most effective tool for detecting ASF.

However, due to the clinical similarity with other *diseases*, and due to its spreading characteristics in the herd it should be supplemented by virological *surveillance*.

## ***In commercial Holdings***

- *Strict health monitoring programme of pig holdings (pigs sick/dead examined and **tested**) (enhanced passive surveillance)*

## ***In Backyards***

- *awareness of pig keepers about the obligation to notify vet if pigs are sick or dead*
- *Vet inspection on pig slaughtering for own consumption (pigs with lesions/symptoms examined and tested)*

## Virological Surveillance

It is important for early detection, differential diagnosis and for systematic sampling of target populations. It should be conducted:

- to investigate clinically suspected cases
- to monitor at risk populations
- sentinel animals (to confirm eradication after stamping-out)

# Serological Surveillance

Serological surveillance aims at detecting antibodies against ASFV.

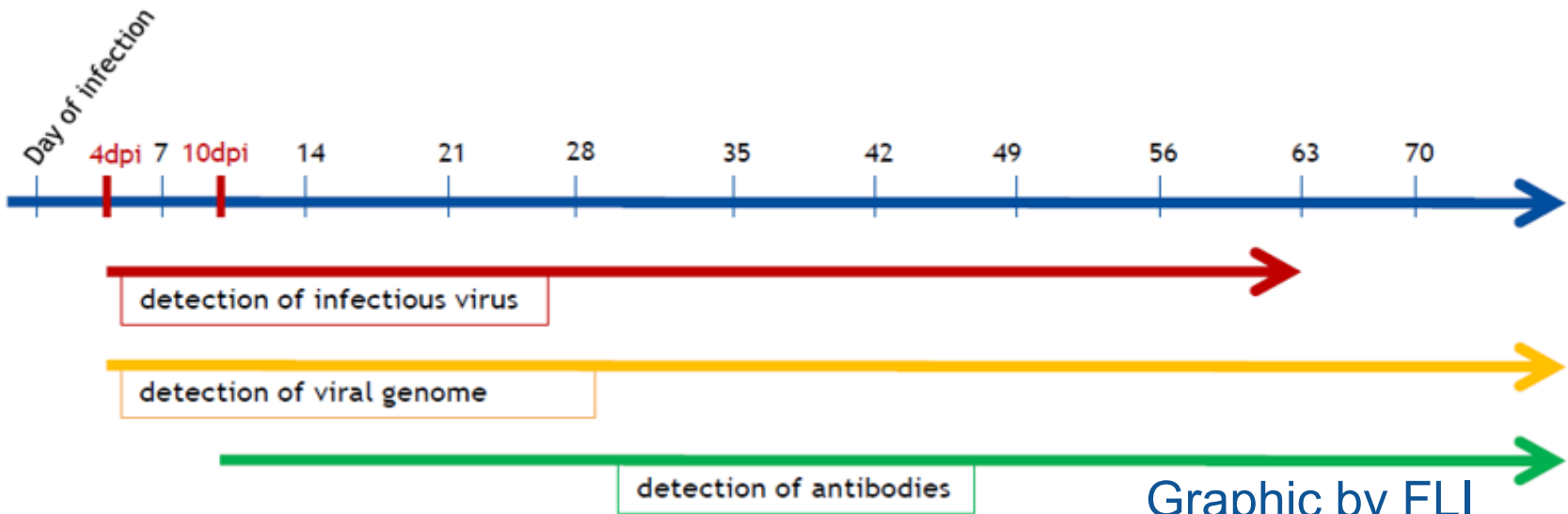
Positive ASFV antibody test results can indicate an ongoing or past outbreak, if some animals recover they may remain seropositive.

***Serology is not suitable for early detection!***



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# Correct interpretation of different results allows estimation of the beginning and the spread of infection





# Surveillance of ASF in wild boar

Enhanced passive surveillance in all country – all found dead and sick wild boar tested

and

Active surveillance of all hunted wild boar in the **infected area**

# Surveillance program in WILD BOAR in Latvia

Sampling carried out by official, authorized veterinarians or trained hunters.

1.1. **Infected area** (part III and part II) - **all** wild boars **hunted** and found **dead** are sampled and tested for the presence of antibodies and genome.

- Hunters must identify wild boar carcass and keep it till lab result
- In the case of positive PRC or ELISA tests, carcasses are withdrawn and destroyed + compensation

1.2. **Risk area** (part I) and **free area** - passive surveillance - **all** discovered **sick, dead** and killed on the road wild boar are tested for the presence of ASF genome and antibodies (if possible).





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