Control measures for animal diseases

18 February 2019

Unit G3 (Official controls and eradication of diseases in animals)
DG SANTE, European Commission

These slides accompany the explanation of the acquis to Albania and North Macedonia and can only be used for that purpose. Their content is subject to further development of the acquis and interpretation by the Court of Justice of the European Union

European Commission

Prevention	Detection	Control	Transparency
Biosecurity Animal identification Veterinary certification and movement control for intra-EU trade of livestock Veterinary certification and border controls for animals and products imported.	Surveillance Reference laboratories Health monitoring in high risk areas Animal Disease Notification System.	Contingency planning Animal Disease Notification System Isolation of infected holdings Eradication EU support: Emergeny team, vaccine banks, compensation, training.	EU audits of Member State veterinary services Public information systems (RASFF, ADNS) Scientific consultations Notification.

European Commission

EU main tools for diseases control (1)

EU-fully harmonized veterinary legislation

Specific control Directives

Regionalisation policy

Contingency plans

The EU Reference Laboratory network (EURLs)– diagnostic manuals

The EU co-financed eradication programs

EU main tools for diseases control (2)

Enforcement – audits

Financial support in case of outbreaks

Better training for safer food – BTSF

The European Food Safety Authority - EFSA

International cooperation – OIE/FAO GF-TADSs

EU research projects – Horizon 2020

European Commission

Tools for control

TRACES

EU Network of Laboratories

Animal Disease Notification System (ADNS)

Country listing for third countries

Vaccine Banks

EU Veterinary Emergency Team – EUVET

Financial support

European Commission

TRACES

Trade Control and Expert System of the EU

Online tool for health certification in 35 languages

Trade of live animals between Member States

Imports to the EU of live animals and their products

Standardised animal health certificate accompanying consignments

Traceability tool in case of outbreaks

Pre-notification, allows official animal health controls at destination or in Border control posts at import

Official controls - sampling and results

European Commission

Laboratory network

EU Reference Laboratory (EURL) and national laboratories (e.g. FMD, AI, ASF, LSD)

Confirmation, virus characterization and storage

Standards, training

Ensure quick diagnosis due to location in all Member States

*EURL assistance to **national laboratories***

Inter-laboratory tests

Data collection and analysis

Annual meetings with national reference laboratories

Cooperation and verification

Rapid exchange of information (1)

Animal Disease Notification System (ADNS)

Based on Directive 82/894EEC

Primary outbreaks

Member States must notify the Commission and other Member States within 24 hours

Immediate, automatic e-mail sent to all Member States

Specific information must be provided in e.g. number of birds, measures taken

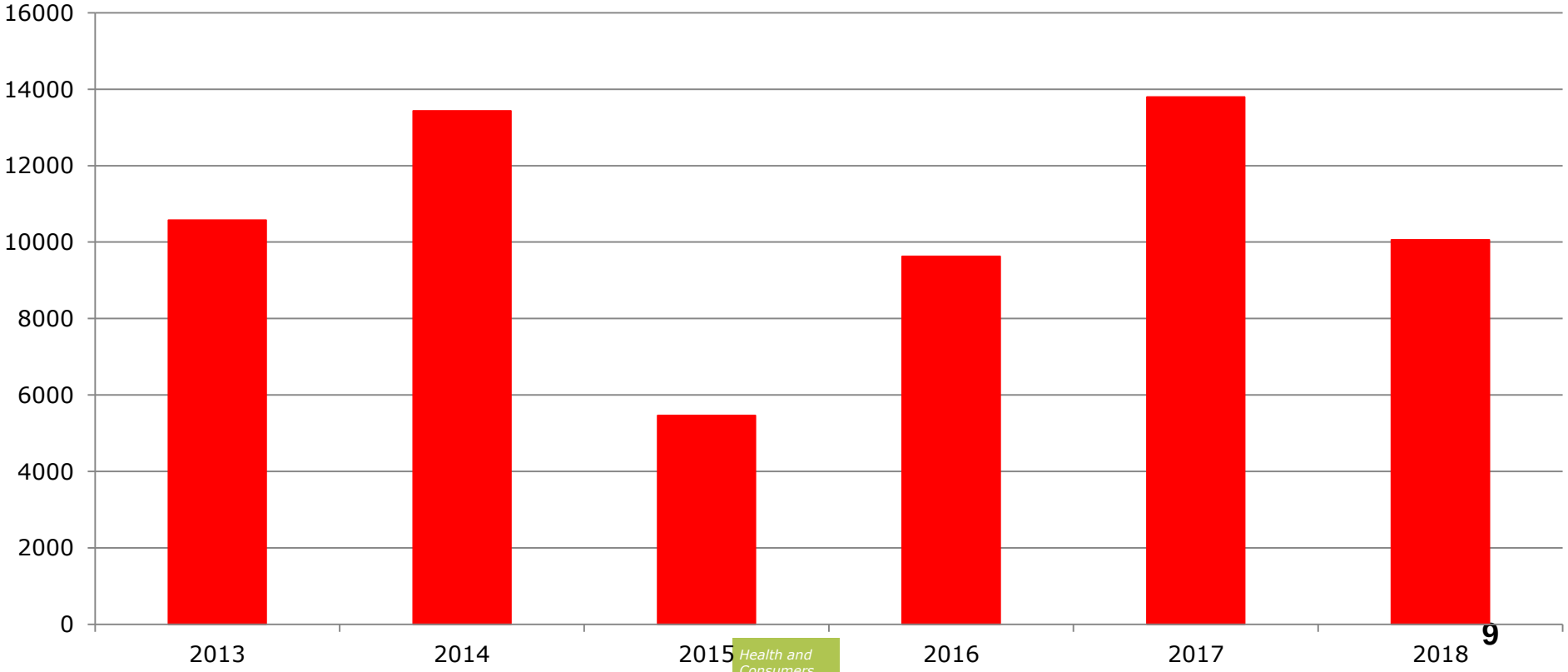
Secondary outbreaks

Notification/update at least once per week

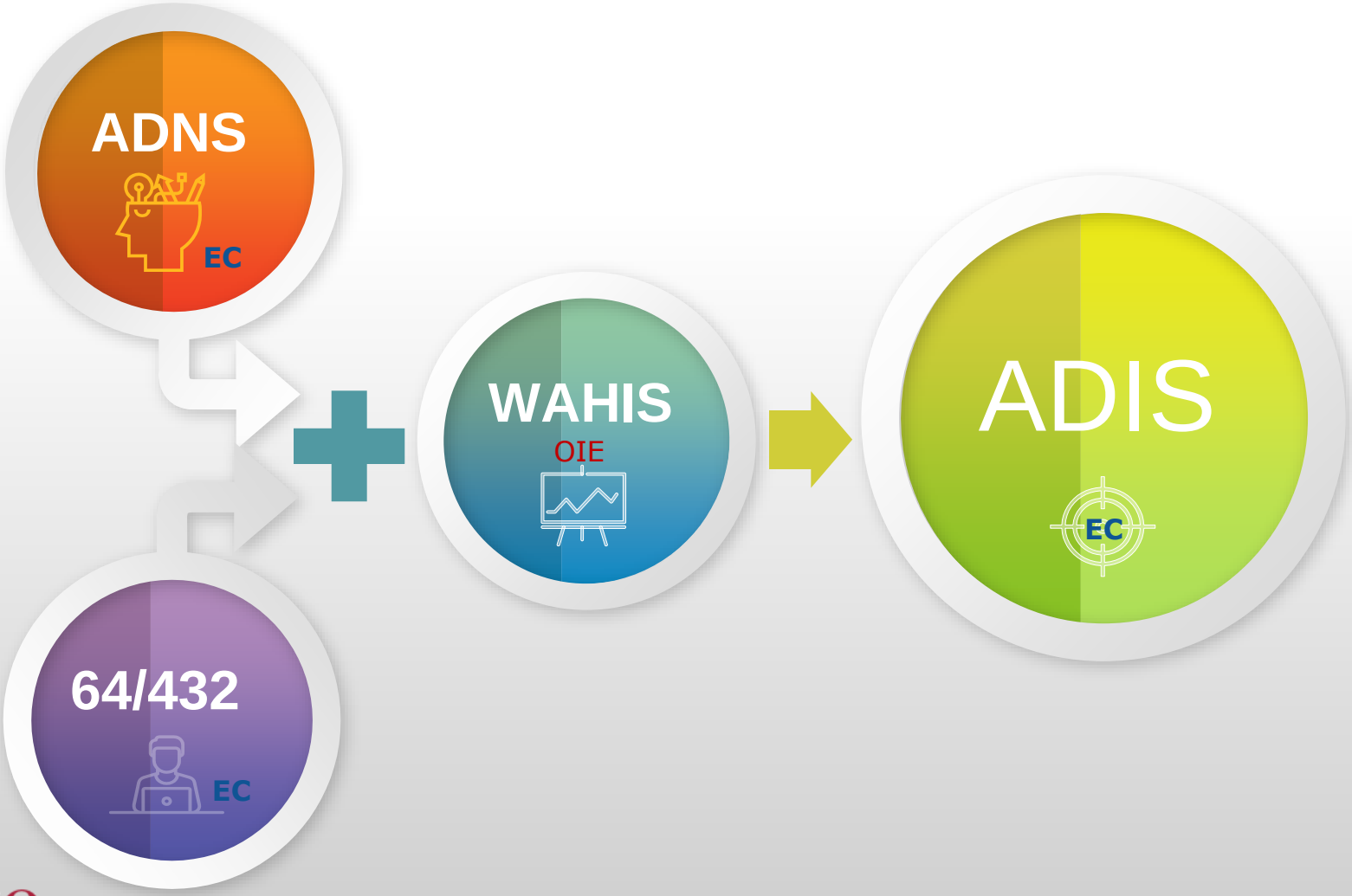
Weekly e-mail updates to all ADNS members and on website

N. of ADNS notifications per year

Including all ADNS diseases from EU MS + neighbouring countries



Animal Disease Notification System (ADIS) to be released in 2019



Rapid exchange of information (2)

Member States and non-EU countries receive information provided by affected Member States ***at the same time***

via e-mail distribution list that is kept up-to date

Information on Decisions on protection measures

Info notes in 2018:

- **186 messages for ASF → weekly info note**
- **69 messages for AI**

European Commission

Imports in the EU

Only from countries listed in Commission Regulations (EC) No 798/2008 & 206/2010

Health status of animals
Regular & rapid information to EU and OIE
Mesures at least equivalent to those in EU
Reliable laboratory test results – EU or OIE standards
Structure of veterinary services and their powers
Organisation and implementation of controls
Reliable export certification
Country pre-listing audits carried out by Commission services
Safeguard measures in case of outbreaks

European Commission

EU Vaccine banks

Vaccines ready to be used in case of need

Current banks are for:

- **FMD**
- **CSF**
- **LSD**
- **PPR**
- **Plans for a future SGP vaccine bank**

European Commission

EU VET
EU Veterinary Emergency Team

Team of field experts

To be mobilised within 24h

Provide tailor made recommendations

Field visits

Health and Consumers

Latest EU VET missions

Greece	November 2017	Sheep and goat Pox
Italy	November 2017	Avian Influenza
Poland	November 2017	African Swine Fever
Bulgaria	November 2017	Avian Influenza
Hungary	April 2018	African Swine Fever
Romania	June 2018	African Swine Fever
Romania	July 2018	African Swine Fever
Bulgaria	August 2018	Peste des Petits Ruminants
Bulgaria	August 2018	African Swine Fever
Bulgaria	September 2018	African Swine Fever
Belgium	September 2018	African Swine Fever
Belgium	October 2018	African Swine Fever
France	October 2018	African Swine Fever
Belgium	January 2019	African Swine Fever

European Commission

EU Financial support (ASF)

- **Since 2013, grants for a total amount of EUR 95 million have been awarded for programmes and emergency measures implemented by MSs in the combat against ASF**
- **Up to 75% co-funding rate for the reimbursement of the cost incurred**
- **Awareness campaigns and wild boar passive surveillance are now eligible in all MSs (if not in approved programmes, under emergency measures)**

- **From 2020: compensation and selective hunting not eligible in the programmes**

European Commission

EU Financial support (LSD)

EU LSD vaccine bank

First of its kind, established on April 2016. Donations to support LSD vaccination.

- **2016: 625.000 doses to 8 countries**
- **2017: 325.000 doses to 5 countries**
- **2018: 876.000 doses to 6 countries**

More than 1.8 million vaccine doses donated to date to EU and non-EU Member countries.

EU Financial support

- ***EU Member countries: reimbursement for the cost of control measures (e.g. stamping out e.t.c) + cost of LSD homologous vaccines purchased and used through national procedures.***

- ***Non EU Member countries: reimbursement for the cost of LSD homologous vaccines purchased and used through national procedures.***

Total EU funds allocated for LSD

2015: 3,1 million EUROs (EU Member States)

2016-2017: 4,8 million EUROS (EU Member States)

5 million EUROS (non EU Member Countries)

Specific diseases addressed :

- Foot and Mouth Disease
- Classical Swine Fever
- African Swine Fever
- African Horse Sickness
- Avian Influenza
- Newcastle Disease
- Fish, crustacean and mollusc diseases
- Bluetongue disease
- Other diseases
- (TSEs)
- (Zoonoses)

"1. Other diseases"

- ***Council Directive 92/119/EEC : community measures for the control of certain animal diseases and specific measures relating to swine vesicular***
- ***Lays down all the general principles for the control and eradication of animal diseases in the EU***
- ***Compulsory notification of suspicion of diseases listed in ANNEX I : rinderpest, PPR, Swine Vesicular Disease, EHD, SGPox, Vesicular Stomatitis, ASF, LSD, Rift Valley Fever***
- ***Investigation by an official vet***

"1. Other diseases"

- **Holding placed under official surveillance :** census, confinement, ban of movement, epidemiological inquiry
- **If confirmation :** culling of animals, destruction of carcasses and products, cleaning and disinfection of buildings, restocking after minimal period

- **Notification in ADNS** (**directive 82/984/EEC on the notification of animal diseases within the Community**)
- **Epizootiological inquiry**
- **Crisis unit** to coordinate all eradication measures
- Official surveillance of other holdings

European Commission

"1. Other diseases"

- ***Establishment of a protection zone and surveillance zone:***

- ***Protection zone*** *with minimum 3 km radius around the infected holding, with identification of all holdings, clinical examination of animals, movement prohibited*

- ***Surveillance zone*** *with minimum 10 km radius*
- *Information of the persons about the restrictions*
- *Official approval of the disinfectants and insecticides and cleaning and disinfection supervised by official vet*
- *Standstil period of at least 21 days before re-introduction of new animals*

"1. Other diseases"

- *Designation of a **National Reference Laboratory** for each disease by each Member State*
- *Designation of a **EU Reference Laboratory** by Commission for each disease*
- ***Vaccination against diseases possible under some conditions** and approval by the Commission*

European Commission

"1. Other diseases"

- ***Contingency plans*** *compulsory for each Member State for all the diseases listed in Annex I*

- ***Detailed requirements and minimum criteria laid down in Annex IV :***
- *Crisis centre on a national level, list of local disease control centres, list of staff involved, skills and responsabilities, equipments and materials, detailed instructions for management of suspicion and confirmation, training programmes, diagnostic laboratories, legal powers to implement the contingency measures*

2.Foot and Mouth Disease (FMD)

- ***Council Directive 2003/85/EC on Community measures for the control of foot-and-mouth disease***

- *Based on the same principles already listed in Dir 92/119/EEC, but also additional and specific rules :*
- *Article 25 and 26 : detailed provisions about meat and milk from restricted zones*
- *Article 45 : principle of regionalisation : restricted and free zones*
- *Article 49 : general principles on Vaccination against FMD : prohibition, or possibility of emergency vaccination*
- *Article 59 : recovery of the FMD free-status after eradication with or without vaccination*

2.Foot and Mouth Disease (FMD)

- Detailed requirements laid down in the Annexes :

- *Annex III : protocol for clinical examination and sampling*
- *Annex IV : procedures for cleansing and disinfection*
- *Annex VII, VIII, and IX : treatment of meat, milk and products*
- *Annex X : guideline for the emergency vaccination programmes*
- *Annex XII : biosecurity standards for laboratories handling the live FMD virus*
- *Annex : XIV : Community Bank of Antigens and Vaccines : conditions for production, supply, storage, and delivery of vaccines*

2.Foot and Mouth Disease (FMD)

- ***Annex XVII : requirements for contingency plans :***

- *permanently operationnal expert group in each Member State*
- *REAL-TIME EXERCISES*
- *awarness campaigns for farmers*

European Commission

3. Classical Swine Fever (CSF)

- ***Council Directive 2001/89/EC on Community measures for the control of classical swine fever***

- *Based on the same principles already listed in 92/119/EEC, but also additional and specific rules :*
- *Article 15 : measures in case of CSF in feral pigs :*

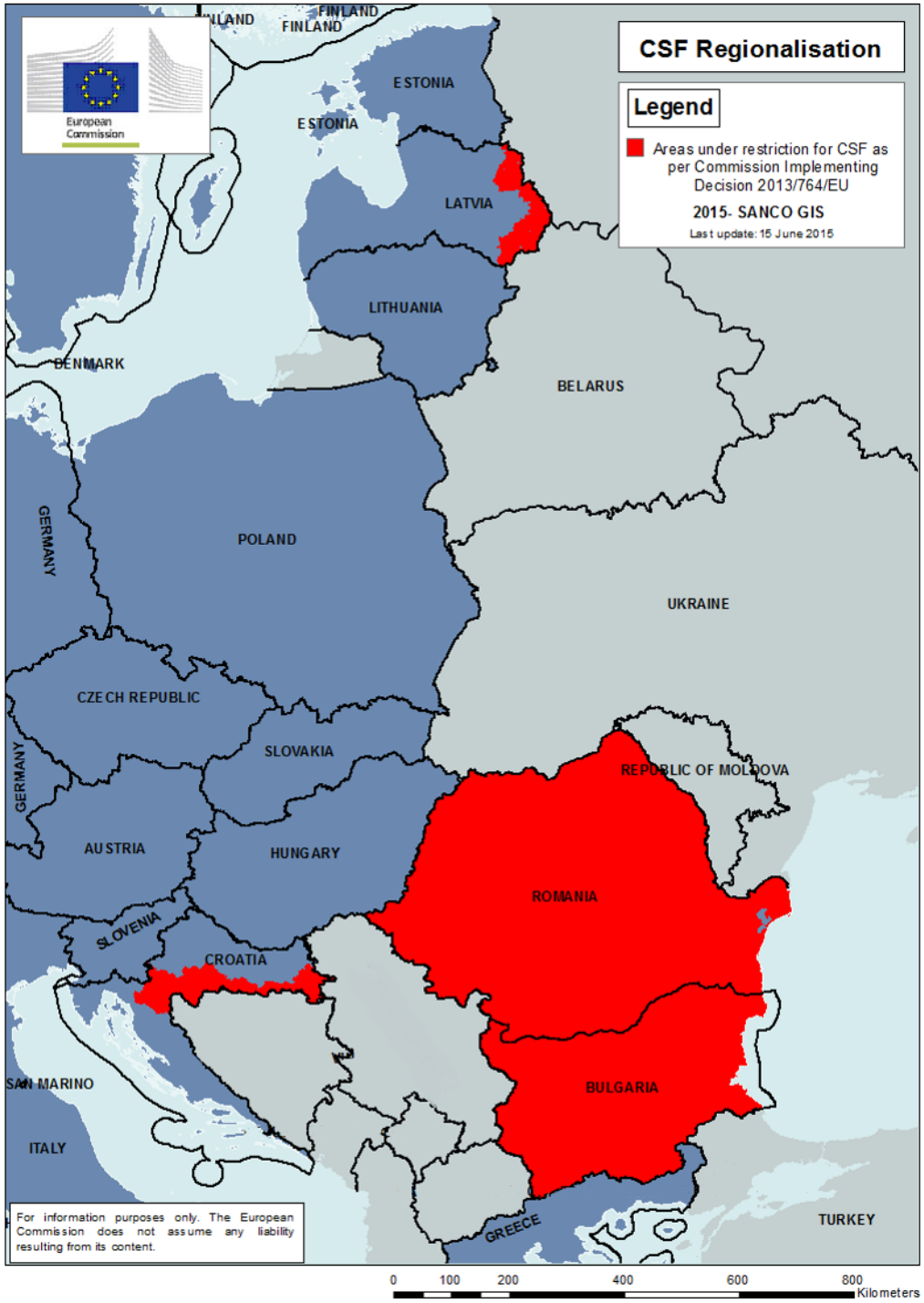
reduce the spread of the disease ; expert group, surveillance of pig holdings in the infected area, eradication plan of CSF in the feral pigs population

- *Article 24 : rules on catering waste : forbidden for pigs, and destroyed under official supervision*
- *Decision 2002/106/EC approving a diagnostic manual for the confirmation of CSF*
- *Decision 2007/682/EC on the renewal of the Community stocks of vaccine against CSF*

3. CSF

2013/764/EU: Commission Implementing Decision of 13 December 2013 concerning animal health control measures relating to classical swine fever in certain Member States

https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1549905793883&uri=CELEX:02013D0764-20161028



4. African Swine Fever (ASF)

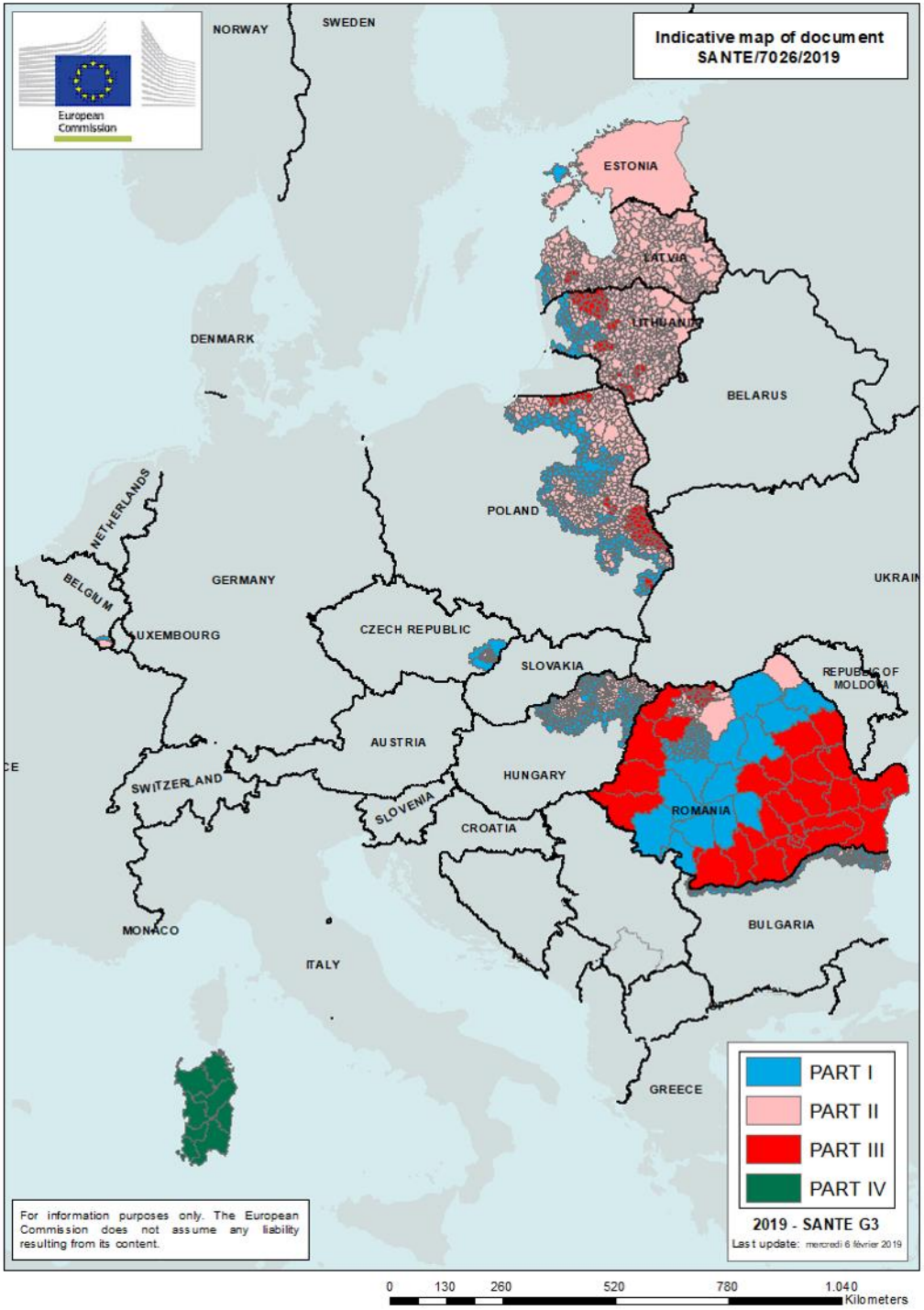
- ***Council Directive 2002/60/EC on the control of african swine fever***

- *Same principles than for classical swine fever*

- *Decision 2003/422/EC approving an ASF diagnostic manual*

EU ASF regionalisation measures

- **Based on CID 2014/709/EU**
- **Last amended by CID (EU) 2019/161 of 31 January 2019**
- Urgent adoption of emergency measures
- Agreed with Member States
- Immediately applicable
- Decisions published in the Official Journal of the European Union in 23 languages



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Regionalisation for ASF

The cornerstone of ASF regionalisation is on the origin of the pigs and the *measures in the holdings.*

The whole set of measures is built around that together with derogations if adequate risk mitigating measures can be put in place.

The whole system works only because it relies on the overall EU management of animal diseases (identification an traceability, movement certification and checks, disease reporting, compensation mechanism, etc.)

European Commission

Regionalisation for ASF

Art 3

[…]shall **prohibit** the **dispatch** of:

(a) **live pigs** from the areas listed in Parts II, III and IV of the Annex;

(b) consignments of **porcine semen, ova and embryos** from the areas listed in Parts III and IV of the Annex;

(c) consignments of **pig meat, pig meat preparations**, pig meat products and any other products containing such meat from the areas listed in Parts III and IV of the Annex;

(d) consignments of animal **by-products** from porcine animals from the areas listed in Parts III and IV of the Annex.

Derogations apply only in case of

specific risk mitigating measures in place !

Regionalisation for ASF

Article 8

Prohibition on the dispatch to other Member States and third countries of **live pigs** from the areas listed in the Annex

Derogations apply only in case of specific risk mitigating measures in place !

Regionalisation for ASF

Article 9

Prohibition on the dispatch to other Member States and third countries of consignments **of porcine semen** and **ova** and **embryos** collected from pigs from the areas listed in the Annex

Derogations apply only in case of specific risk mitigating measures in place !

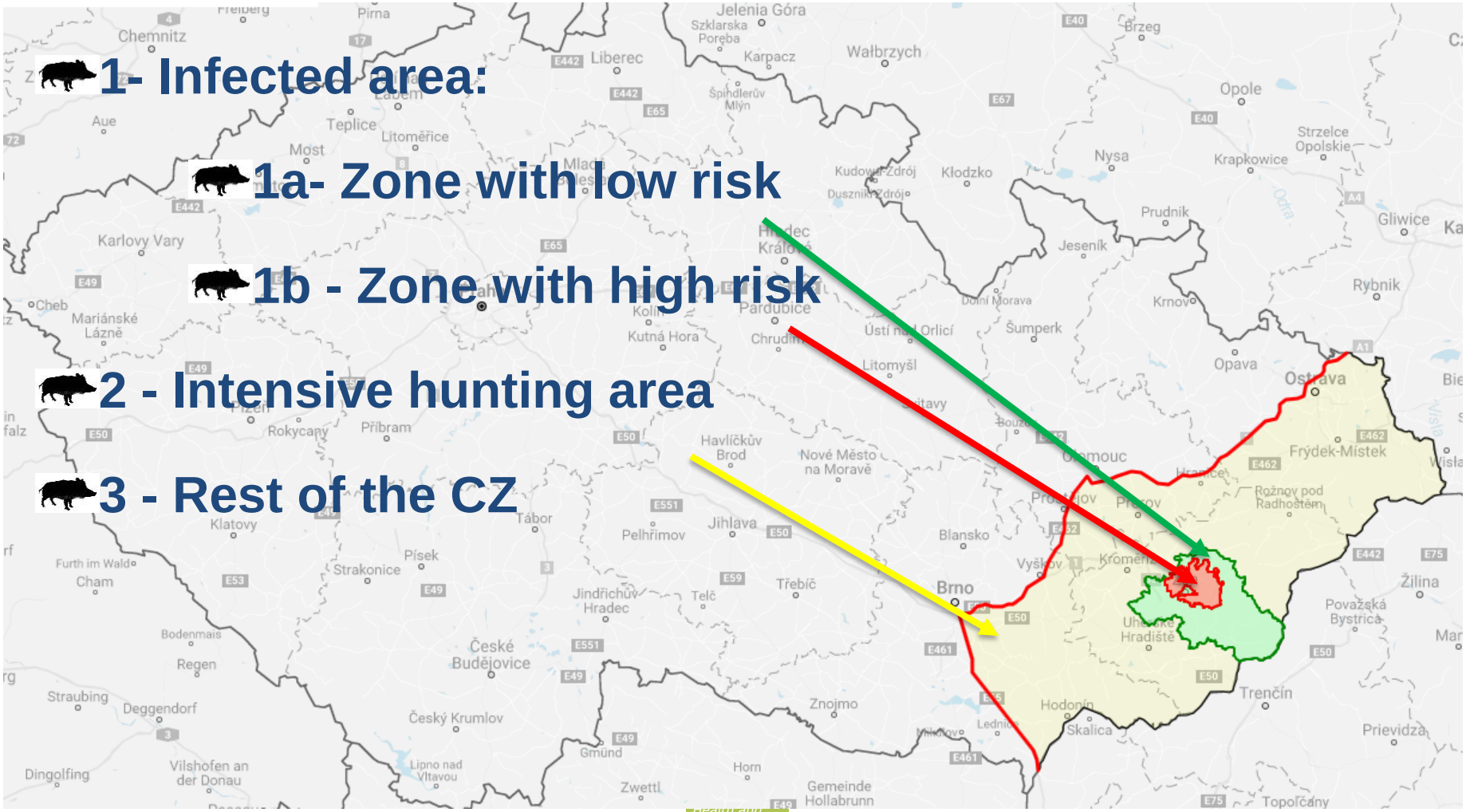
Regionalisation for ASF

Article 11

Prohibition on the dispatch to other Member States and third countries of fresh **pig meat** and of certain pig meat preparations and pig meat products from areas listed in the Annex

Derogations apply only in case of specific risk mitigating measures in place !

CZ Republic: measures in wild boar population in 4 levels



Timeline of hunting regulation CZ Republic

26.6.2017
ASF confirmation

27.6.2017
Ban of hunting in infected area

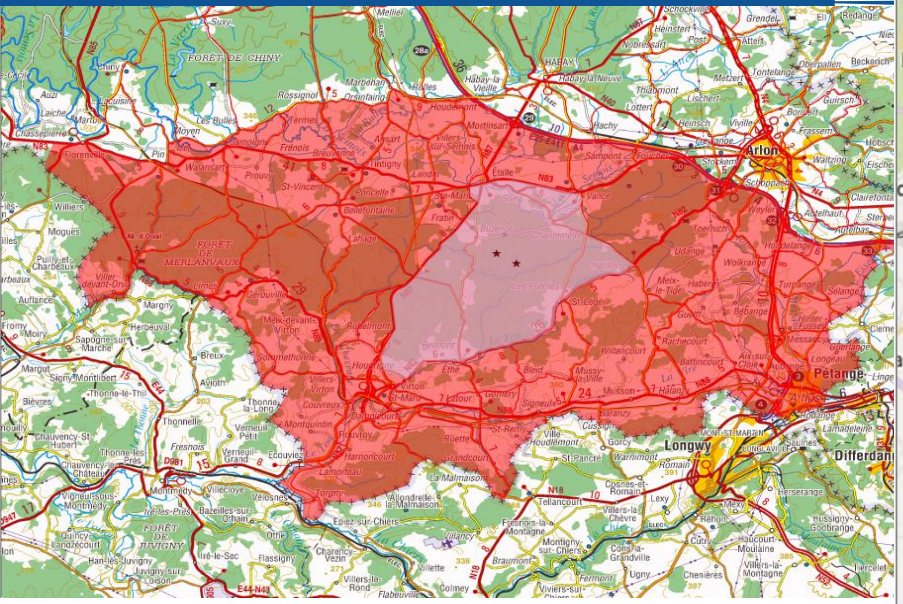
21.7.2017
Hunting in the low risk zone in infected area

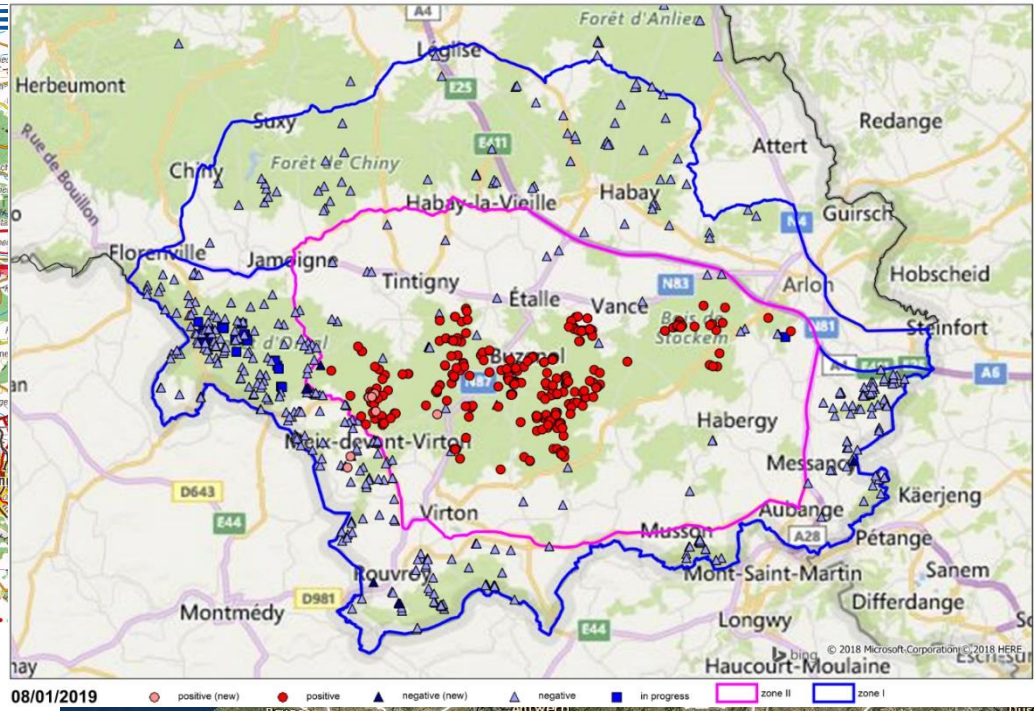
24.8.2017
Trapping of wild boar in the high risk zone in infected area

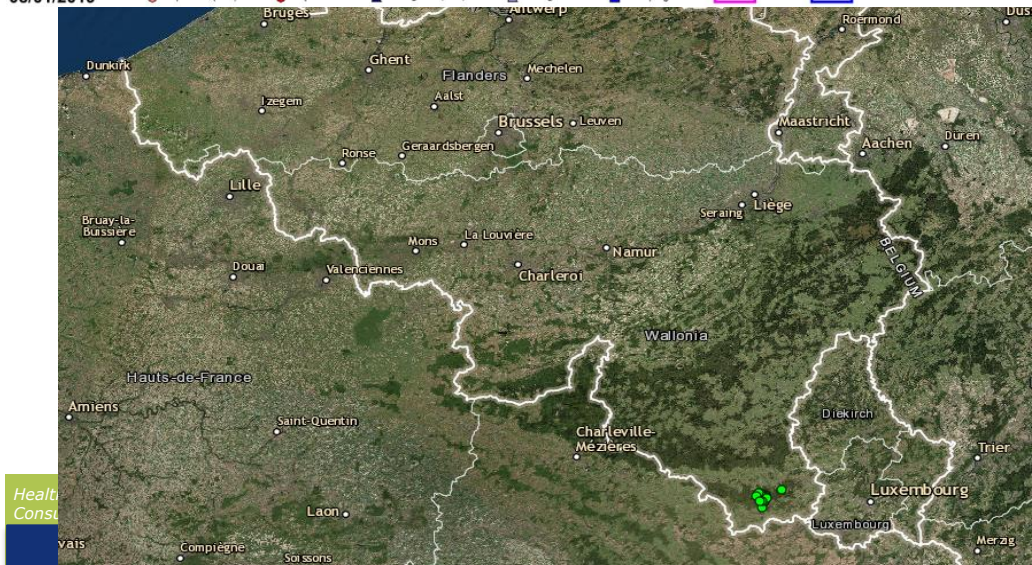
11.9.2017
Individual hunting in the high risk zone in infected area

16. 10. 2017 Hunting in collaboration with Police

ASF in Belgium: from 13/09/2018







- **Etalle region (Luxembourg province): ASF confirmed in 2 wild boar on 13/09/2018**
- **2 EUVET missions on the spot: 14-17/09/2018 and 11-12/10/2018**
- **Up to 15/11/2018 - 93 ADNS notifications (175 wild boar)**

5. African Horse Sickness (AHS)

- ***Council Directive 92/35/EC laying down control rules and measures to combat African horse sickness***

- *Based on the same principles already listed in 92/119/EEC, but also additional and specific rules due to its vectorial transmission :*
- *Protection zone : 100 km radius around the infected holding*
- *Surveillance zone : 150 km radius*

- *Decision 2009/3/EC establishing Community reserves of vaccines against African horse sickness*

European Commission

6. Avian Influenza (AI)

- ***Council Directive 2005/94/EC on Community measures for the control of Avian Influenza***

- *Distinguishes HPAI and LPAI (Annex I (2) and (3))*
- *Art 4 : compulsory surveillance programmes to detect H5 and H7 subtypes of AI in different species of poultry*
- *Art 11 : measures when confirmation of outbreak*
- *Art 15 : measures in contact holding (criteria for depopulation in Annex IV)*
- *Art 16 : protection and surveillance zones : confinement and bio-security measures*
- *Art 52 to 58 : Emergency vaccination, vaccine banks*
- *Art 62 : Contingency plans (minimum criteria in Annex X)*

6. Avian Influenza (AI)

- *Decision 2006/437/EC approving a diagnostic manual for A.I*
- *Commission Decision 2010/367/EU on surveillance programmes for Avian Influenza in poultry and wild birds*

6. Avian Influenza (AI)

- *Decision (EU) 2018/1136 on risk mitigation,* ***reinforced biosecurity and early detection*** *in relation to risks of HPAI transmission to poultry by wild birds*
  - **Identification of "high risk areas" where poultry is assessed as being at increased risk for HPAI infection**
  - **Depending on the epidemiological situation certain prohibitions apply such as open air access for poultry, use of surface water for watering them, gathering at markets …)**

European Commission

AI control strategies and regionalization measures

Case Study
2016-2018 Italian H5N8 HPAI epidemics

With the kind contribution of Stefano Marangon.

Health and Consumers

H5N8 HPAI (Europe 2016/17) (first case 26.10.2016)

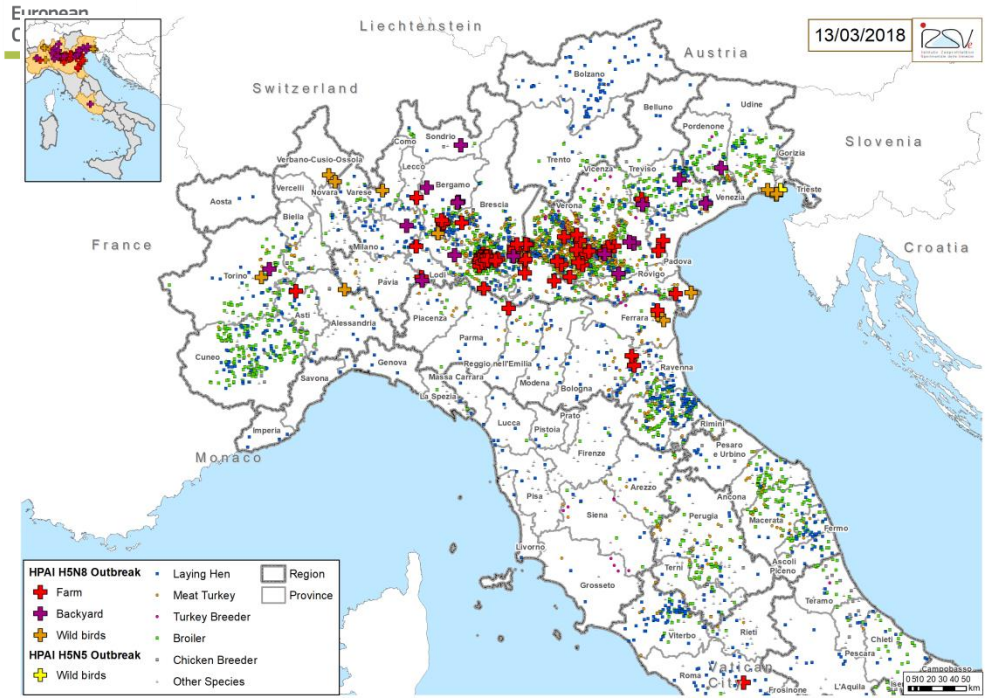
- ***29*** *Countries*
- ***≈1,200*** *outbreaks*
- ***Millions*** *of birds dead or stamped out*
- ***3,081*** *affected wild birds*

2016-2018 H5N8 HPAI in Italy

December 2016 – March 2018

86 outbreaks in poultry

*≈**3.000.000 birds stamped out** on affected premises*



- **≈2.000.000 birds preemptive culling on at-risk premises in DPPAs**
- **14 cases in wild birds**

AI outbreak communication

- *Primary outbreaks*
  - **Notification to the Commission and other Member States (MS) within 24 h**
  - **Animal Disease Notification System assures a rapid exchange of information with MS and third Countries -> transparency**
  - **Specific information must be provided in e.g. number of birds, measures taken**

- *Secondary outbreaks*
  - **Notification/update at least once per week (Monday)**

European Commission

AI outbreak management

- *Restrictions on suspect/affected holding*
- ***Stamping out** of all poultry in affected premises*
- *Disposal of carcasses and contaminated materials (e.g. eggs, litter)*
- *Cleansing and **disinfection***
- *Epidemiological investigation and contact tracking activities in each affected premises*

Risk analysis to identify:

- **Premises at high risk of AI (preventive killing -> criteria)**
- **Premises with at-risk contacts (restrictions and enhanced surveillance)**
- **Geographical areas at risk (where restriction measures shall be rapidly enforced)**

Preventive culling

Culling of healthy birds in poultry premises at high risk of AI

*It is an **additional eradication measure** depending on the epidemiological situation taking into account the following criteria and risk factors:*

- *High risk contacts (e.g. transport of live birds, indirect contacts with no biosecurity)*
- *Proximity - possible neighborhood spread (500 – 1000 m)*
- *Location in Densely Populated Poultry Areas (DPPAs)*
- *Poultry species with high susceptibility to AI (e.g. turkeys)*

Establishment of restriction zones (Regionalization)

Criteria

- *Outcome of epidemiological enquiry*
- *Geographical situation*
- *Natural and administrative boundaries*
- *Location, proximity of other holdings, number and distribution of holdings and birds (poultry density)*
- *Movements and trade patterns*
- *Role of wildlife*
- *Veterinary infrastructure to control movements*

Establishment of restriction zones (in line with OIE standards)

Procedure

- *To identify a sub-population within a clearly delineated geographical area*

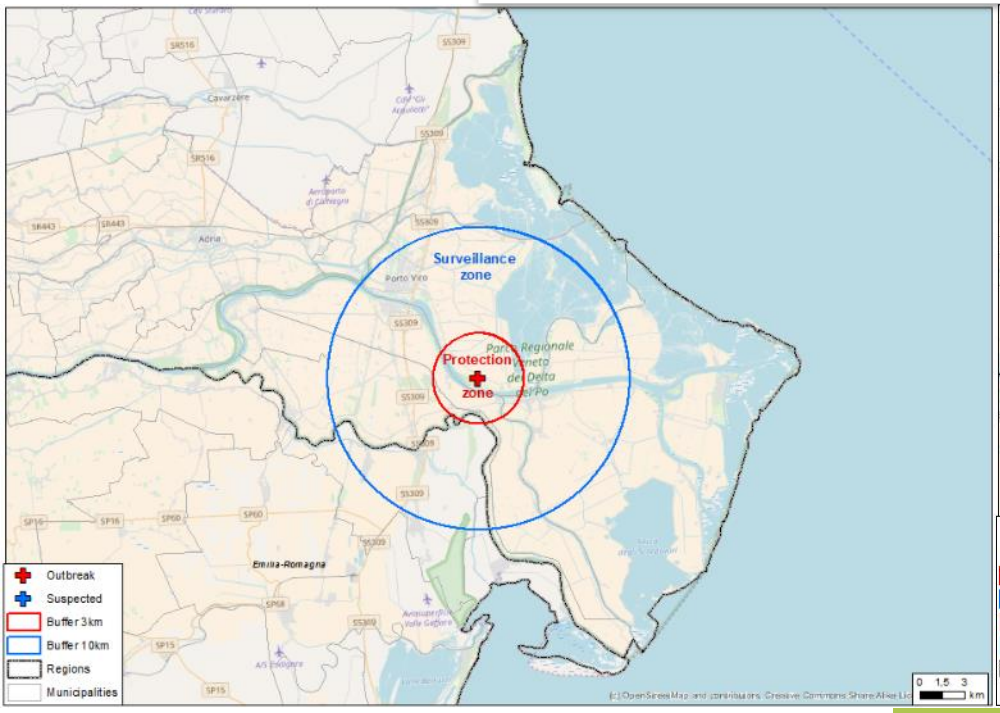
Aims

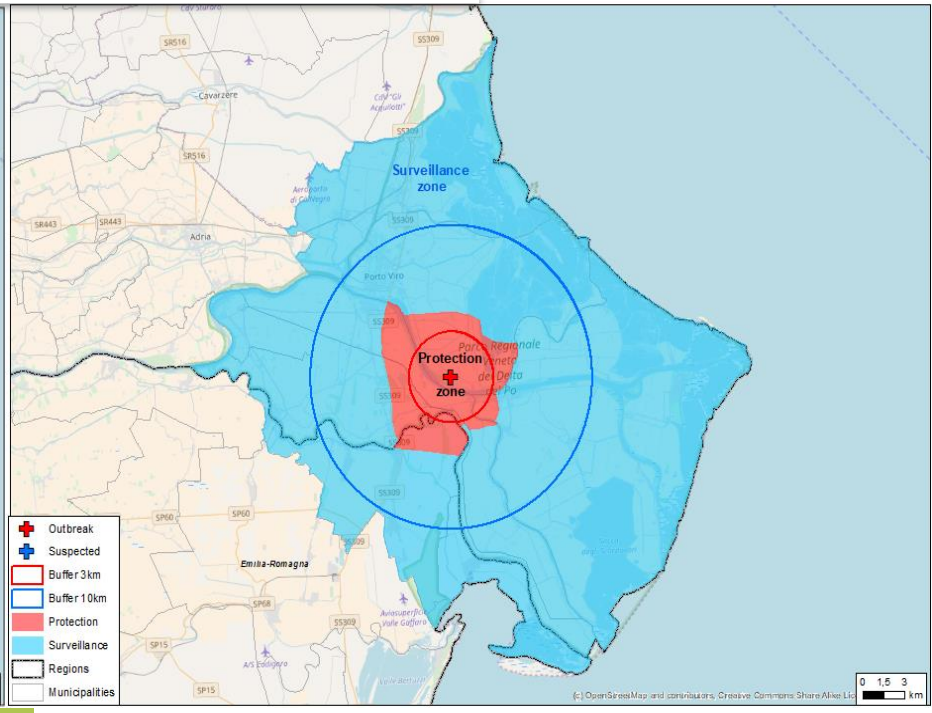
- *Disease control*
- *International trade*

Method

- *Definition of geographic areas (**GIS**)*
- *Restriction, surveillance and biosecurity measures*

Outbreak
Suspected
Regions
Municipalities
0 0,05 0,1
km


Surveillance zone
Protection zone
Cavarzere
Adria
Porto Viro
Emilia-Romagna
Outbreak
Suspected
Buffer 3km
Buffer 10km
Regions
Municipalities
0 1,5 3
km


Surveillance zone
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Adria
Porto Viro
Emilia-Romagna
Outbreak
Suspected
Buffer 3km
Buffer 10km
Protection
Surveillance
Regions
Municipalities
0 1,5 3
km

Protection zone - minimum 3 km radius

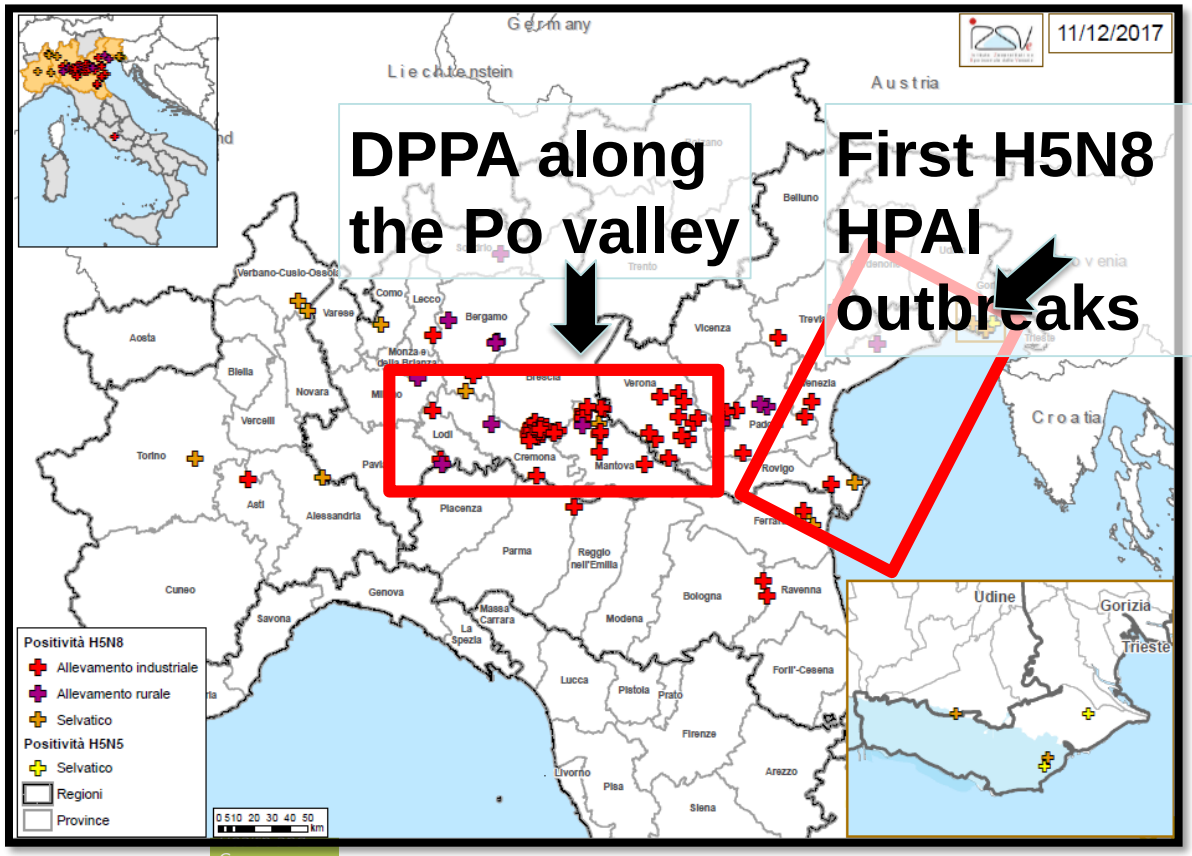
- *Census of holdings*
- **All poultry indoors**
- *All commercial poultry holdings* ***visited by official veterinarian***
- ***Restrictions on movements*** *of live poultry, poultry products, meat, eggs and manure*
- *Certain movements may be authorized under strict conditions - testing according to AI diagnostic manual*
- ***Biosecurity measures*** *for persons entering / leaving*
- *Cleansing and disinfection of vehicles and equipment*
- *Prohibition of fairs, markets and shows for poultry*
- *No release of game birds*

Surveillance zone – minimum 10 km radius

- *Census of holdings*
- *Any increased **morbidity/mortality to be notified** immediately and investigated by the competent authority*
- ***Restrictions on movements** of live poultry, poultry products, meat, eggs and manure.*
- *Certain movements may be authorized under strict conditions*
- ***Biosecurity measures** for persons entering / leaving*
- *Cleansing and disinfection of vehicles and equipment*
- *Prohibition of fairs, markets and shows for poultry*
- *No release of game birds*

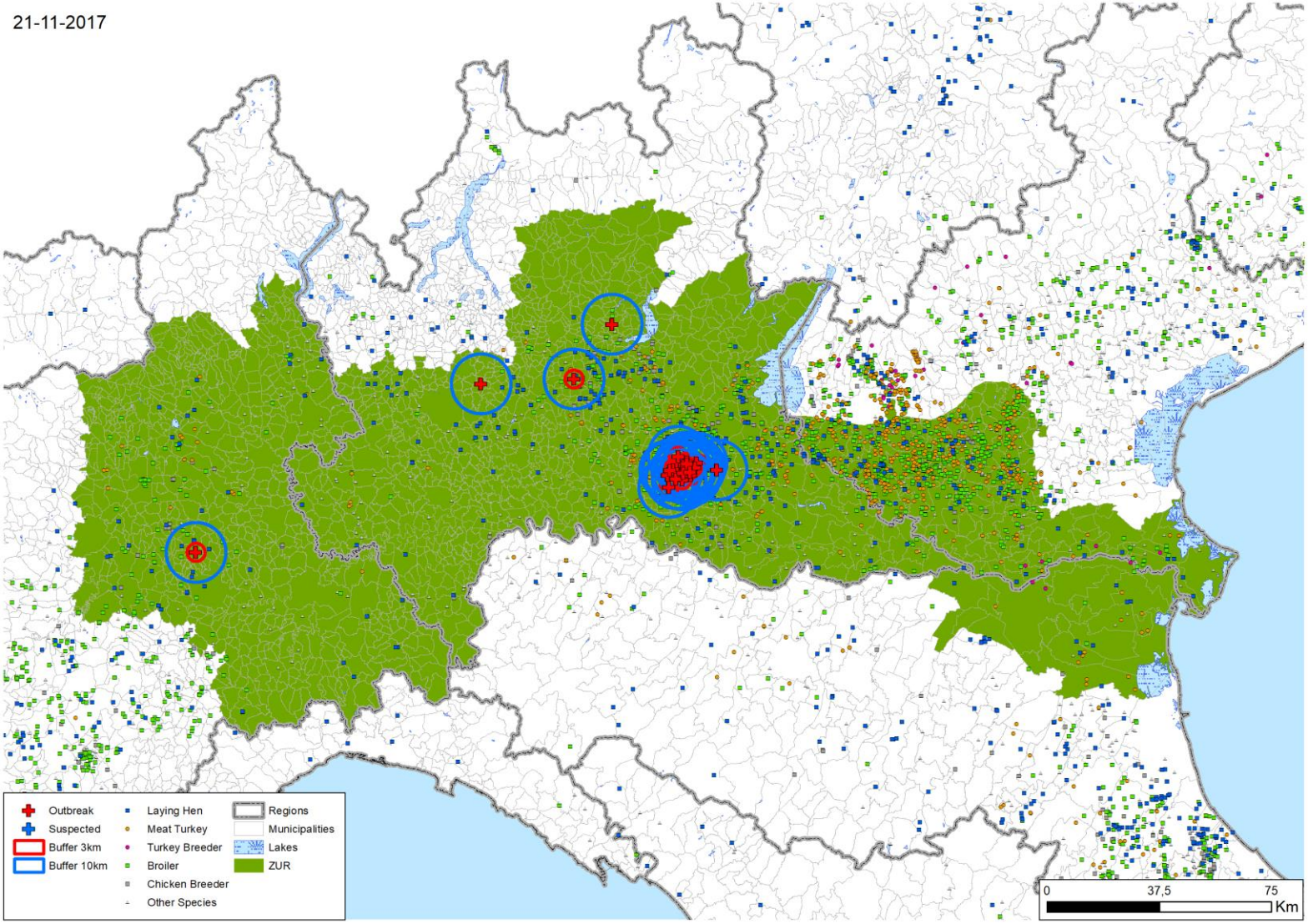
2016-2018 H5N8 HPAI in Italy

- *First outbreaks detected along the migratory flyways (Venetian lagoon and Po river Delta)*
- *Afterwards H5N8 HPAIV introduced in DPPAs mainly along the Po valley -> high risk of farm-to-farm spread*



Further restricted zones

21-11-2017



Further Restricted Zone

Additional restriction and control measures

- *Census of industrial poultry holdings*
- *All poultry indoors*
- *Official inspection and virological (PCR) testing e.g. before loading for slaughter (**pre-movement controls**)*
- *Enforcement of **strict biosecurity** measures regarding vehicles/personnel entering and exiting farms*
- *Poultry companies must ensure a functional separation of activities, personnel and facilities with areas outside the FRZ*
- ***Re-stocking** of turkey farms **prohibited***
  - **Possible derogation only in presence of strict biosecurity standards and after a geographical risk assessment**

Restricted Zones

Commission Implementing Decision (EU) 2017/247 *on "Protective measures in relation to outbreaks of the highly pathogenic avian influenza in certain Member States", as amended:*

- *Established at Union level the protection and surveillance zones to be instituted by the Member States, following an outbreak of HPAI in poultry or captive birds*
- *Prohibited the dispatch of consignments of live poultry, day-old chicks and hatching eggs from the areas listed as Further Restricted Zone*
  - *Derogations applied in case specific risk mitigating measures were in place*

7. Newcastle Disease (ND)

- ***Council Directive 92/66/EC on Community measures for the control of Newcastle Disease***

- *Same principles than for Avian Influenza*

8. Aquatic animals diseases

- ***Council Directive 2006/88/EC on animal health requirements for aquaculture animals, and on the prevention and control of diseases in aquatic animals***
- *Animal health requirements for placing on the market and import of aquatic animals and their products*
- Minimum preventive measures on awareness and preparedness of the CA and the operators
- Minimum control measures in case of suspicion or confirmation of outbreak
- Annex IV : listed diseases : VHS, IHN, KHV, ISA, EHN

8. Aquatic animals diseases

- *Article 4 : authorisation of aquaculture or processing establishment* (only establishments engaged in sanitary slaughter of animals from infected farms)
- *Article 8 : obligations on recording and traceability*
- *Article 10 : risk-based animal health surveillance scheme*
- *Article 14 : animal health certification for introduction in a MS, zone, or compartment declared disease-free or with eradication programme*
- *Article 47 : contingency plans against emerging or exotic disease*
- *Article 49 : granting, maintenance, suspension, restoration of a disease-free Member-State, zone, or compartment*

9. Bluetongue disease (BT)

- ***Council Directive 2000/75/EC laying down specific provisions for the control and eradication of bluetongue***
- ***Commission Regulation 1266/2007 implementing Directive 2000/75/EC as regards the control, monitoring, surveillance, restrictions on movements of susceptible species in relation to bluetongue***
- *Article 3 : compulsory notification*
- Article 4 : measures implemented if suspicion : animals confined if active vector season, treatment of animals, buildings and surroundings with authorised insecticides

9. Bluetongue disease (BT)

- Article 5 : possibility of vaccination : with live attenuated vaccine in the protection zone, and with inactivated vaccine everywhere else (surveillance or free zones)

- Article 6 : measures implemented if confirmation :
- Protection zone (100 km radius), surveillance zone (150 km radius), with :
- *Listing of the holdings, epidemiosurveillance programme by monitoring sentinel groups of bovine and vector population*
- Information of persons in the protection and surveillance zones

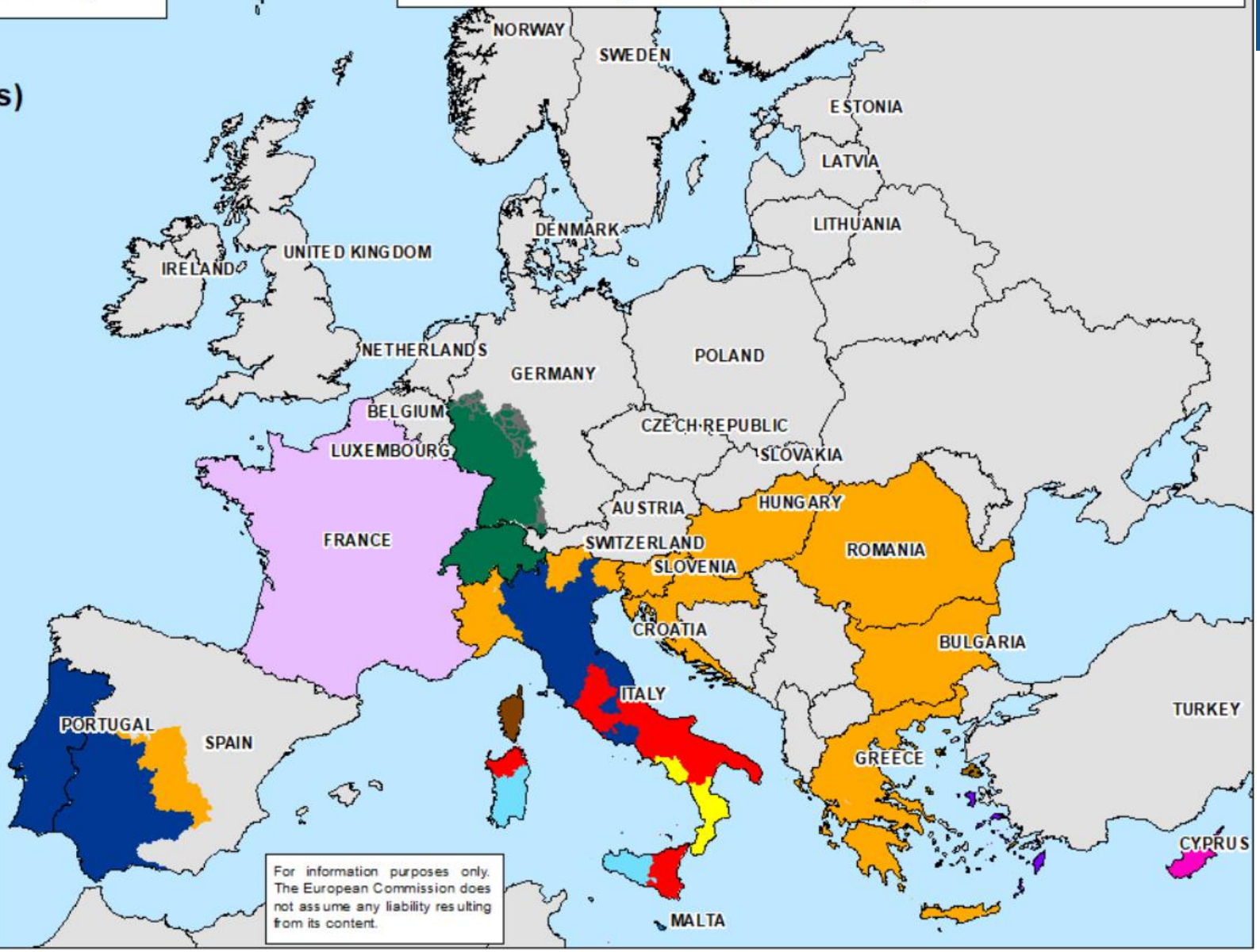
Bluetongue

Restricted zones* as of 28 January 2019

This map includes information on the bluetongue virus serotypes circulating in each restricted zone, which permits, for the purposes of Articles 7 and 8 of Regulation No 1266/2007, the identification of the restricted zones demarcated in different Member States where the same bluetongue virus serotypes are circulating.

Zone (serotypes)

- F (8)
- G (1,2,4,16)
- I (1,4)
- J (1)
- T (1,2,4,8,16)
- X (4,16)
- Y (8,4)
- A3 (4)
- A4 (1,4,8,16)
- A5 (1,3,4,16)
- A6 (1,4,16)
- A7 (4,16,8)
- A8 (16)



* as defined in Article 2 (d) of Commission Regulation No 1266/2007: geographic areas where surveillance and/or protection zones have been demarcated by the Member States in accordance with Article 8 of Council Directive 2000/75/EC.

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9. Bluetongue disease (BT)

- **Annex I : minimum requirements** for the BT monitoring programmes in the restricted zones and for the BT surveillance programmes outside the restricted zones (clinical surveillance of holdings, serological monitoring on sentinel animals, entomological monitoring)
- ***Update of the list of restricted zones*** *by each Member State and information of all the Member States and the public*
- ***Annex III : conditions for exemption*** *from the exit ban (vaccination, vector-free period, insecticides treatments, …)*
- ***Annex IV :*** *criteria for the definition of the seasonnaly vector-free period*
- ***Commission Decision 2008/655/EC*** *approving vaccination plans against BT in BE, CZ, DK, DE, ES, FR, IT, NL, LU*

European Commission

Thank you for your attention

Health and Consumers