

# SCOFCAH

## Avian influenza

17th January 2017



# Framework

- **Epidemiological situation**
  - National situation
  - Surveillance in wild birds
  - Information about the virus
- **Control measures**
  - Modification of risk in wild birds
  - Management of outbreaks
  - Complementary measures



# Epidemiological situation of avian influenza

SCOFAH 17 January 2017

Source : <http://plateforme-esa.fr/>



# Situation in France 13/01, 8 pm

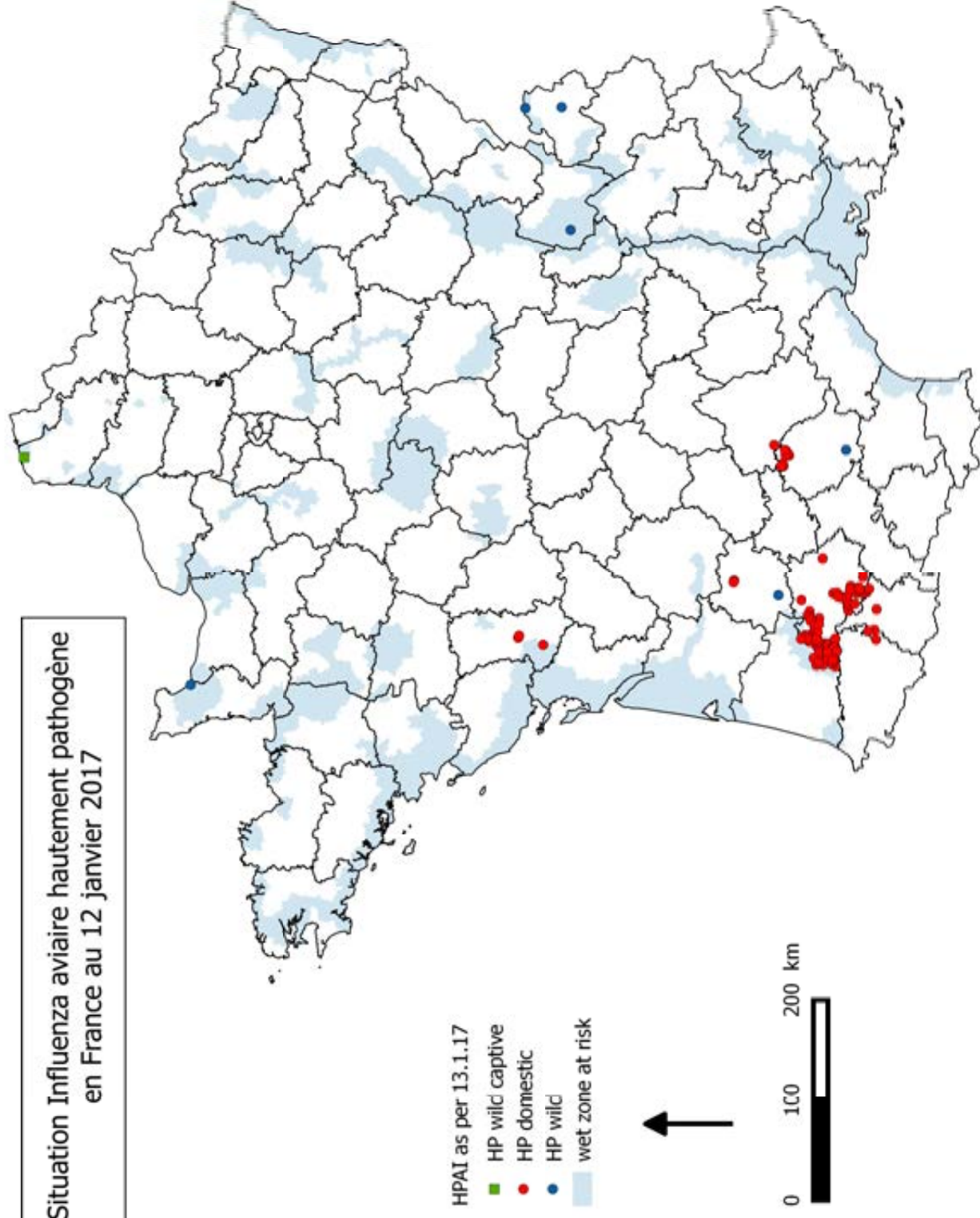
Patho.	Subtype	Domestic poultry				Captive birds	Wild birds
		Galli.	Multi-species.	Palm.	Total		
HP	H5Nx	1	2	16	<b>19</b>		
	H5N8	9	10	91	<b>110</b>	1	7
FP	H5Nx			5	<b>5</b>		
	H5N1	1	1	9	<b>11</b>		
	H5N3			1	<b>1</b>		
	H5N8			1	<b>1</b>		
	H5N9			5	<b>5</b>		


Majority of breeding of palmipeds affected by HPAI but also of galliformes

23 outbreaks of IAFP, all except 2 in breeding of palmipeds

# Situation in France 13/01, 8pm

Situation Influenza aviaire hautement pathogène  
en France au 12 janvier 2017





## Situation in France 13/01, 8 pm

- HPAI HN8 outbreaks in domestic breedings

	Galli.	Multi-species	Palmi.	Total
Clinical surveillance	8	9	63	<b>80</b>
epidemiological investigations			15	<b>15</b>
Pre-movement sampling		1	5	<b>6</b>
active surveillance in the protection zones	1		4	<b>5</b>
Sampling during pre-emptive culling			3	<b>3</b>
NR			1	<b>1</b>
<b>Total Résultat</b>	<b>9</b>	<b>10</b>	<b>91</b>	<b>110</b>

17/19 outbreaks with galliforms and about 2/3 outbreaks with palmipeds detected by clinical



# Origins of the outbreaks

origins of the outbreak among the 28 farms identified as epidemiological linked to a previous outbreak

	FP	HP (H5N8 and H5Nx)	Total
animals		7	<b>7</b>
humans		1	<b>1</b>
Closeness to a previous outbreak		2	<b>2</b>
vehicules	7	6	<b>14</b>
NR	1	3	<b>4</b>
<b>Total</b>	<b>8</b>	<b>19</b>	<b>28</b>

Other high probability origins : wildbirds (n=6), airborne transmission (n=1)



# Clinical surveillance among wild birds

**1 : 26/11**  
25/75 duck  
decoys

**6 : 22/12 :**  
2 whistling ducks

**2 and 3 : 2**  
and 12/12  
2 gulls

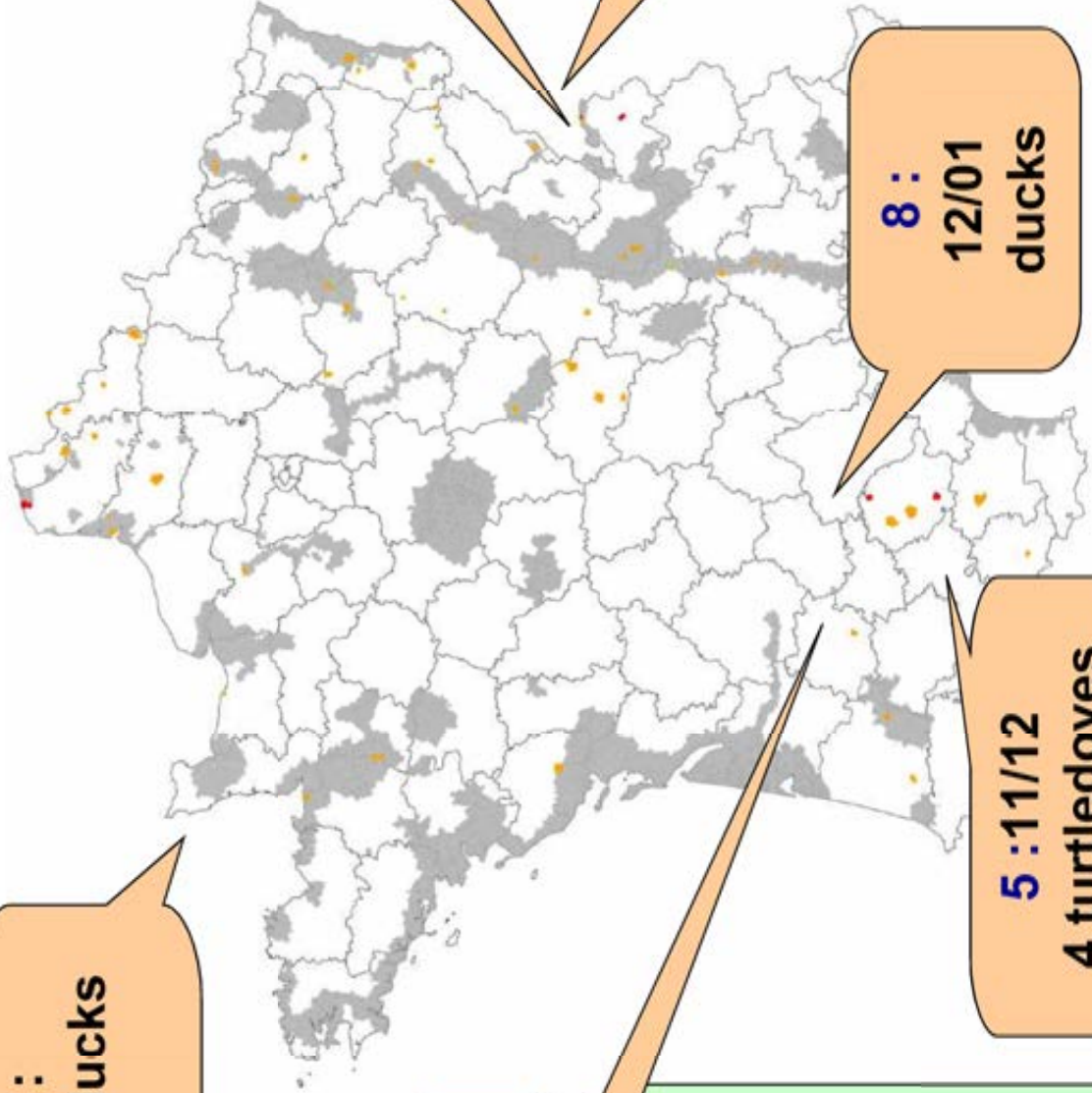
**4 : 13/12**  
3 magpie

**7 :**  
11/01, 1  
swan

**8 :**  
12/01  
ducks

**5 : 11/12**  
4 turtle doves

- **10th January**
- **336 collected birds for AI test**
- Collected birds
- Positive birds





# Active surveillance among wild birds

Counting  
fuligule  
morillons ++

Other migrant  
birds

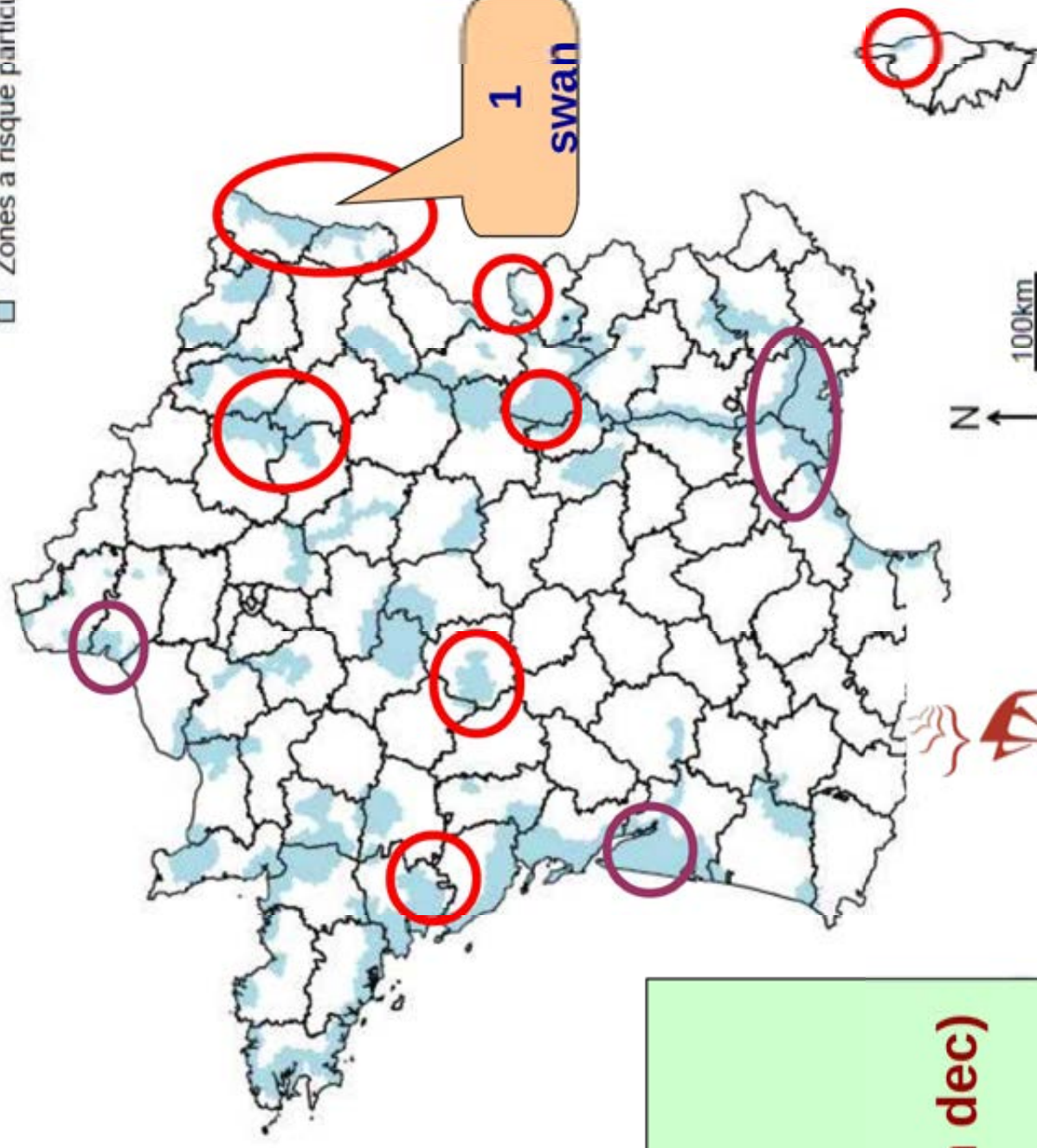
**22 observations**

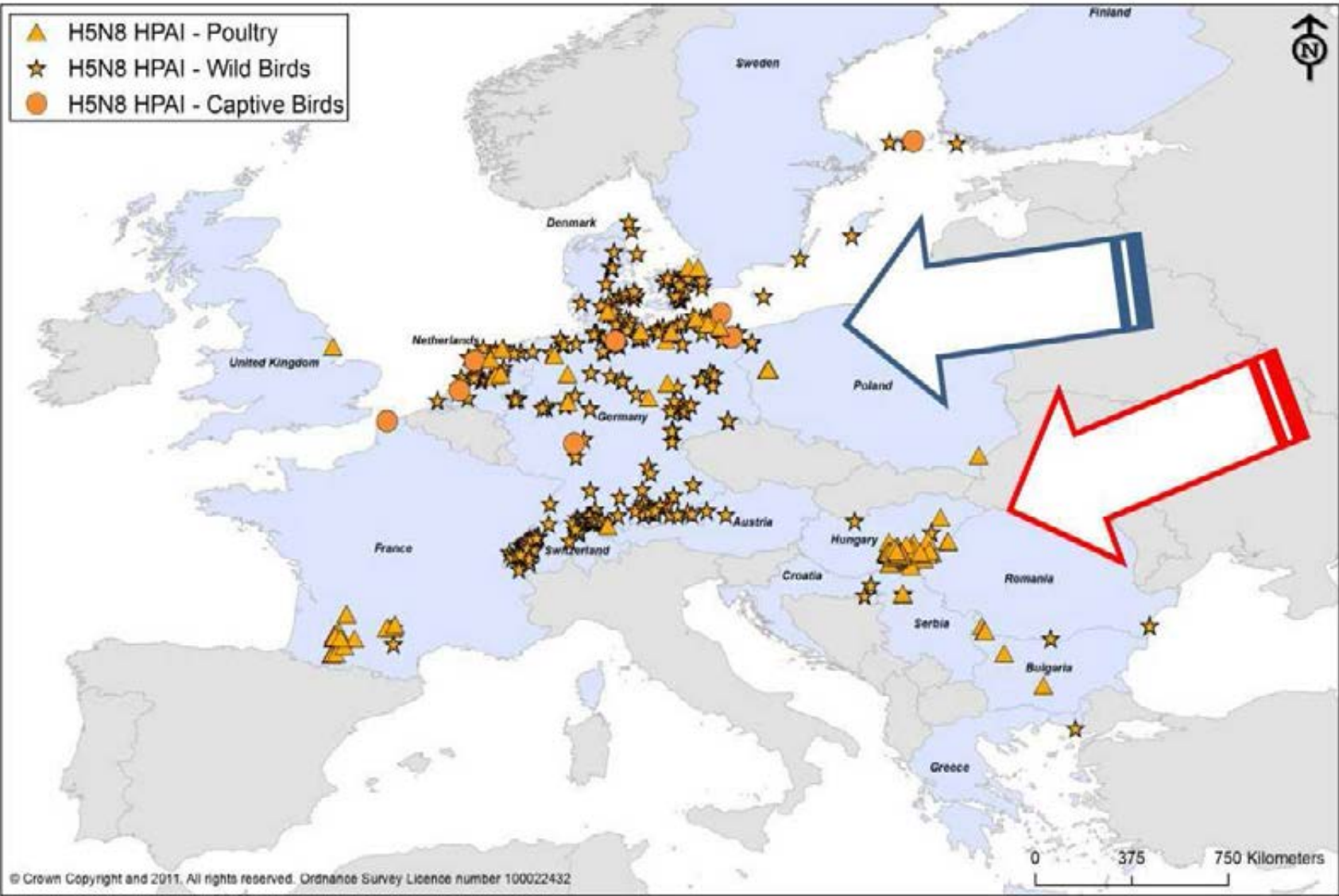
**> 165 000 alive birds**


**1 dead : => labo (27th dec)**

**8 SAGIR (01 et 74) :-**

□ Zones à risque particulier





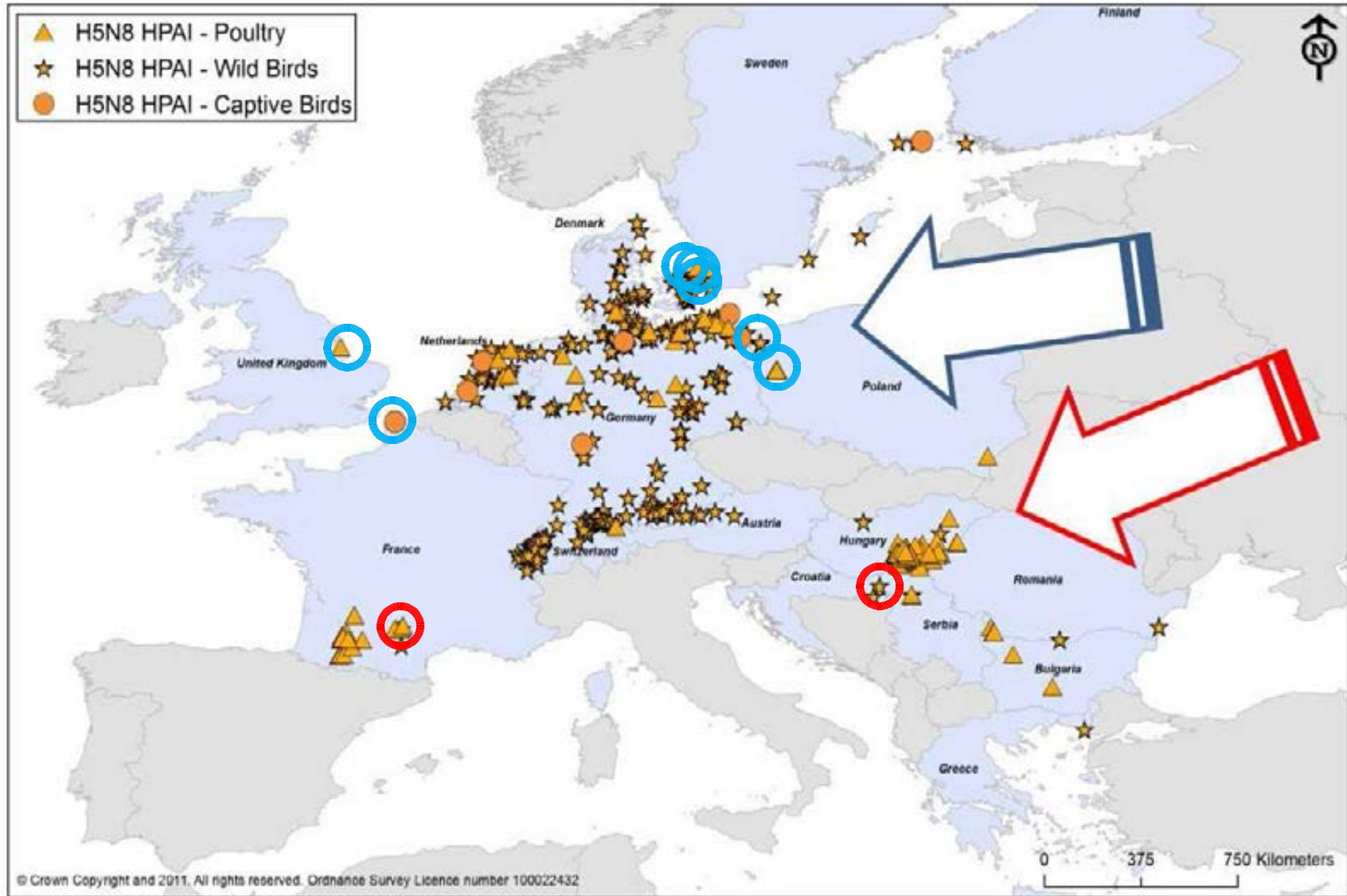
CREATOR: EU Reference Laboratory DATE: 21/12/2016	<b>Highly Pathogenic Avian Influenza outbreaks in October-December 2016</b>	 Animal & Plant Health Agency
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Arrows indicate potential migratory routes from the east





## Comparison of the 2 complete genomes of French HP H5N8 with those currently available



CREATOR:  
EU Reference Laboratory  
DATE: 21/12/2016

**Highly Pathogenic Avian Influenza outbreaks in October-December 2016**

  
Animal &  
Plant Health  
Agency



Based on the genetic analysis of the first 2 HP H5N8 viruses identified in France :

At least **2 different introductions** on the French territory of HP H5N8 virus

- The analysis of the partial sequences of the H5 and N8 genes, obtained during the emergency molecular diagnosis, does not make it possible to determine whether a virus belongs to one of the two groups, differentiated according to the migratory route of introduction.
- Only the sequencing of the complete genomes of the viruses can indicate us belonging to one of the 2 genotypes.
- ⊗ The complete sequencing of the cases identified in the dpts 74, 50, 79 + Some complementary cases in the South-West will be carried out after prior isolation of viruses in ovoculture.



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# Control measures

- Increasing risk level
- Management of outbreaks in the protection zone and the surveillance zone
- Complementary measures
  - Zone 40/32/65
  - Risks of extension
  - Back to normal and prevention



# Modification of the risk level

- After the declaration of several HPAI H5N8 outbreaks in Europe ⇒ Increase in the level of risk in France to "high" in the priority risk areas and "moderate" in the rest of the territory (Ministerial Act of 16/11/2016)
- Since the declaration in France of the 1st outbreak in captive wild birds on 24/11/2016 (appellants mallard in Pas-de-Calais) ⇒ increase in the level of risk to "high" throughout the territory of metropolitan France (Ministerial Act of 05/12/2016)

Consequences :

- containment of backyard poultry
- strengthening biosecurity measures in commercial farms
- restriction in releasing game and appellants
- prohibition of releasing pigeons and the gatherings of birds



# Management of outbreaks

- Adoption of national measures Ministerial Act of 18/1/2008 in application of the Directive 2005/94
  - Adoption of the Protection Zone (PZ, 3 km) and the Surveillance zone (SZ, 10km) by european decision
  - Adoption Temporary Controled Zone (TCZ, 5 to 10km) in case of suspicion, outbreak in wild birds...
- Conditions of the zone management: NS DGAL SDSPA/MUS/2016-1019
- Slaughter of outbreaks, Preventive slaughter of strong suspicions



# Slaughter data

About 700 000 slaughtered poultries since the start of HP outbreaks

## Slaughters per departments



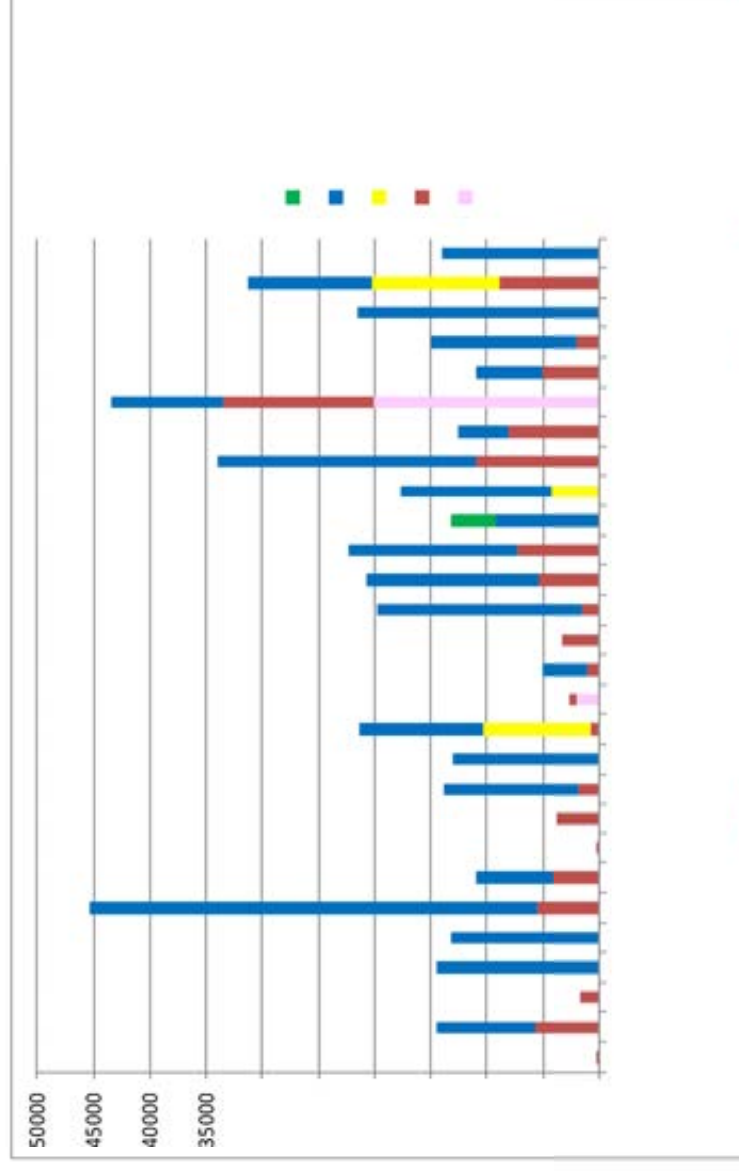
# Slaughter data

Slaughter deadline : about 0,94 day [-7 to 8 days]

Average size of breedings :

DD 2000 ax [15 to 8800] / GT 7500 ax [854 to 25245]

## Repartition of slaughters between GT Logistic (a private firm)/vet services





# Complementary strategy to control de propagation

preventive slaughters to reduce the density of sensitive species

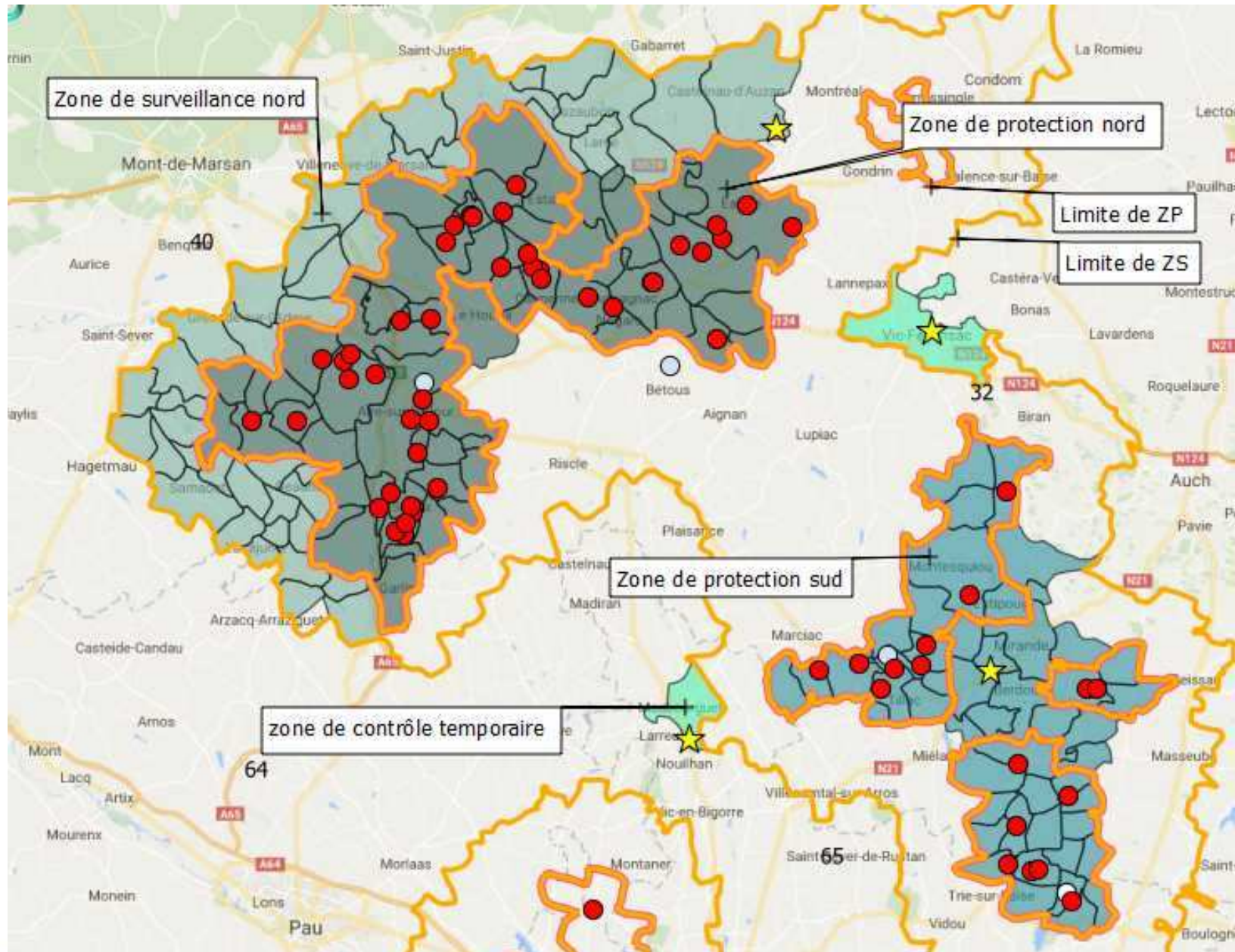
- Slow down the speed of propagation in areas where there is an active circulation
- Prevent extension to areas of higher density and risk

## Prioritization Strategy

- Identify zones and species/priority categories
- Re-evaluate the plan gradually until the epizootic is stabilized

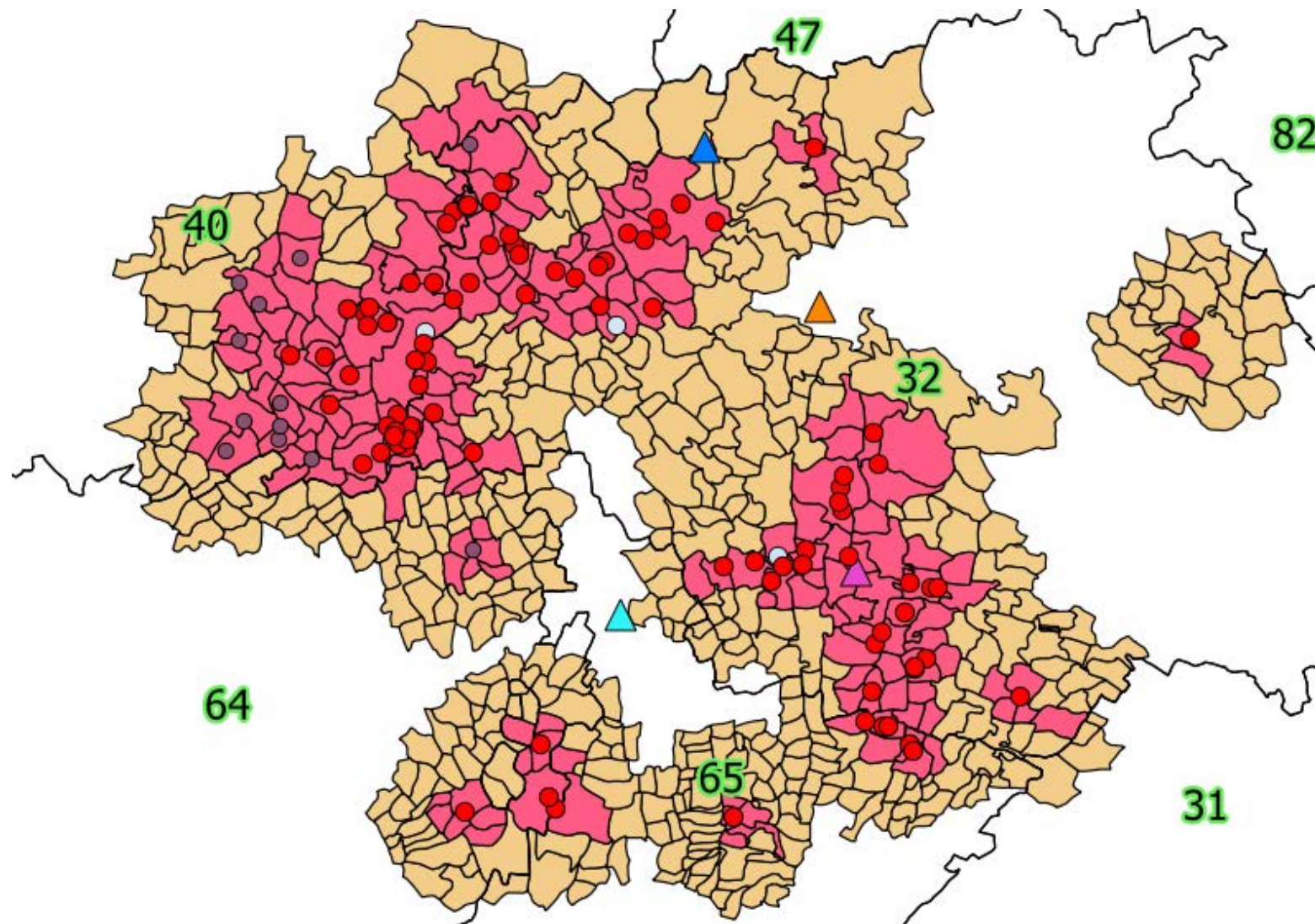


# Proposed zoning 04/01





# Zoning extension after confirmation of suspicions



# Slaughters in the zone

Day of slaughtering	Nb animals	Nb farms
5/1	41897	15
6/1	36198	12
7/1	33750	10
9/1	104258	35
10/1	103482	32
11/1	113913	29
12/1	124227	31
13/1*	9868	2
<b>Total Résultat</b>	<b>567593</b>	<b>166</b>

\* to be consolidated



# Technical aspects of operations

- Clinical veterinary visit 48 hours before setting any movement (ICA diverted use): if suspicion → sanitary police
- Removal with dedicated circuit by zone and slaughterhouse (transport, pick up team, cases)
- Reception of flocks, euthanasia by electrocution without bleeding, PCR specimens, slaughter PV
- Rendering : Secure sending for processing C2 (or C1) – reorganization of flows





# Headcount of slaughters

- Slaughtered animals in outbreaks :  
700 000
  - Preventive Slaughtered animals :  
500 000
- Total : 1 200 000 animals



# Main risks identified

- Moving flocks of uncertain status : *Veterinary clinic, sampling for most-at-risk farms, no movement if clinical signs, biosecurity during transport, abattoirs placed in temporary controlled zone*
- Strong logistic stresses for transporters, Pickers, renderers, veterinarians, tests, DDecPP: *Ability to update plan, provide margin for degrees of flexibility, provision of complementary resources from outside when adapted*
- Evolution of the situation: if unfavorable, extension to other categories / species / zones



# Zone lifting conditions

- Protection zone
- Clinical visits of barnyards and farms
- Serological tests of palmpieds
- Cleaning and disinfection  
=> lifting 21 days after C/D,
- Surveillance zone:
- Visits of the farms
- Samplings of some farms  
=> lifiting if no positive results





Thank you for your attention

