

OVERVIEW OF THE EPIDEMIOLOGICAL SITUATION IN EUROPE AND NEIGHBORING REGIONS



WORLD ORGANISATION FOR ANIMAL HEALTH

Protecting animals, preserving our future

*Dr Paula Caceres
Head, World Animal Health Information and Analysis Department*

Contents

1) Priority diseases in Europe

- African swine fever
- Infection with peste des petits ruminants virus
- Infection with classical swine fever virus
- Infection with rabies virus
- Brucellosis (*Brucella abortus* and *Brucella melitensis*)

2) Lumpy skin disease

3) Foot and mouth situation in Northern Africa

4) Highly pathogenic avian influenza worldwide



REPORT ON PRIORITY DISEASES IN EUROPE



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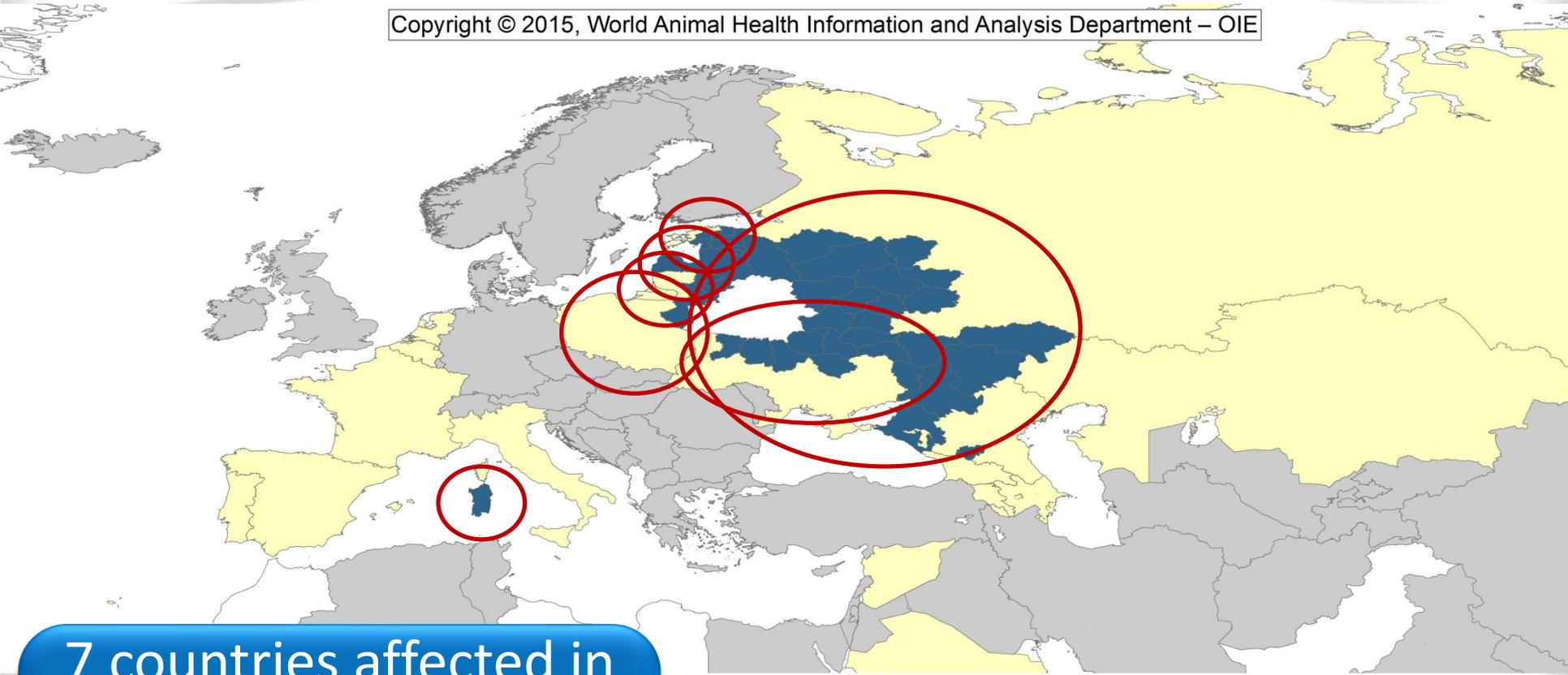
- 1. African swine fever**
2. Infection with peste des petits ruminants virus
3. Infection with classical swine fever virus
4. Infection with rabies virus
5. Brucellosis (*Brucella abortus* and *Brucella melitensis*)

ASF distribution

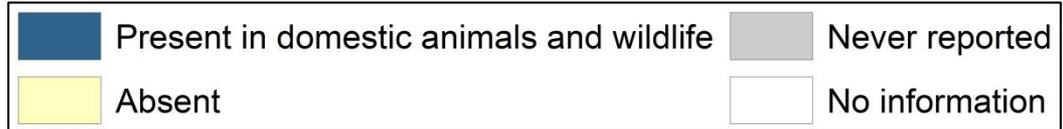
1 January 2014 – 21 September 2015



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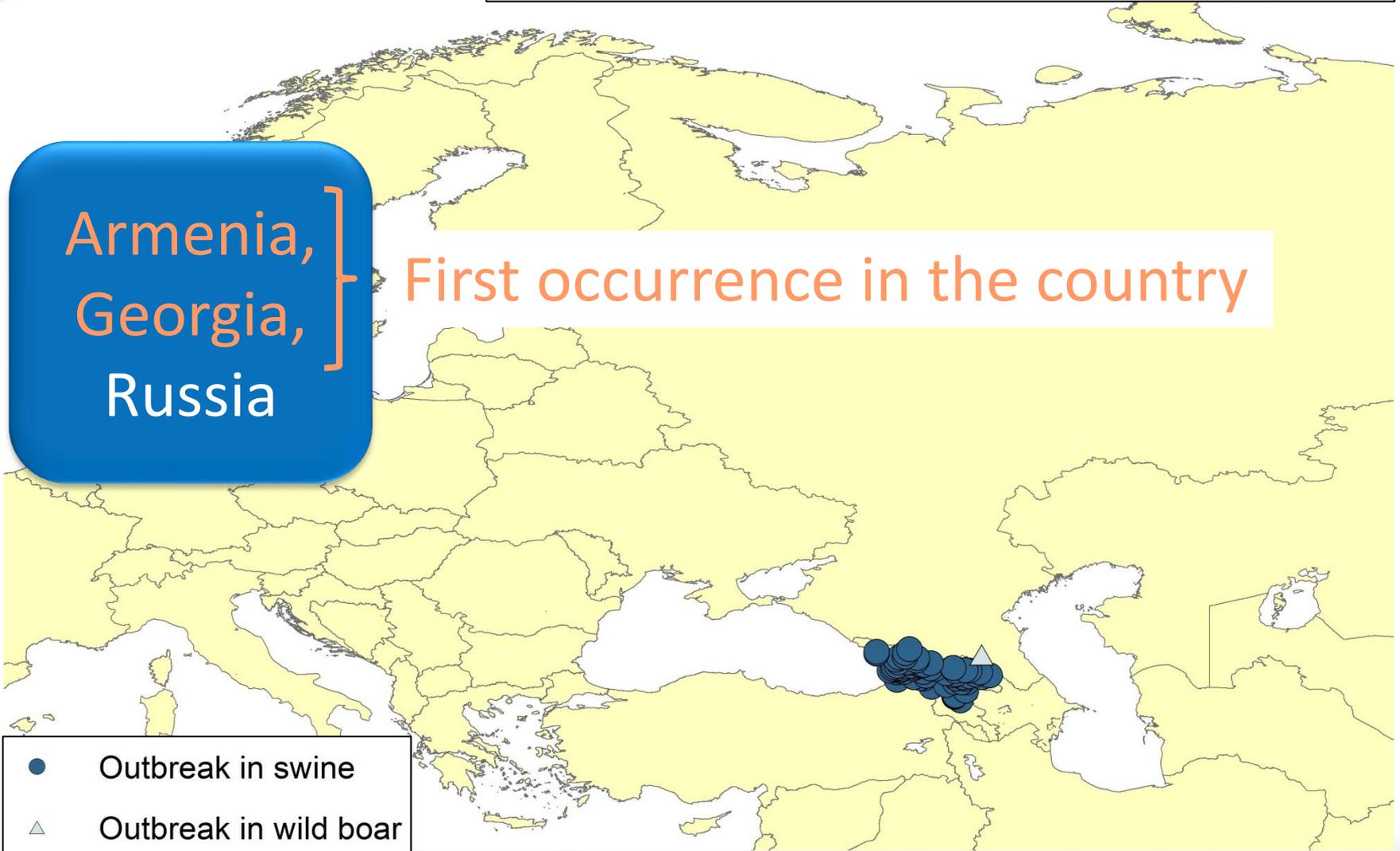


7 countries affected in Europe : Estonia, Italy, Latvia, Lithuania, Poland, Russia; Ukraine



2007

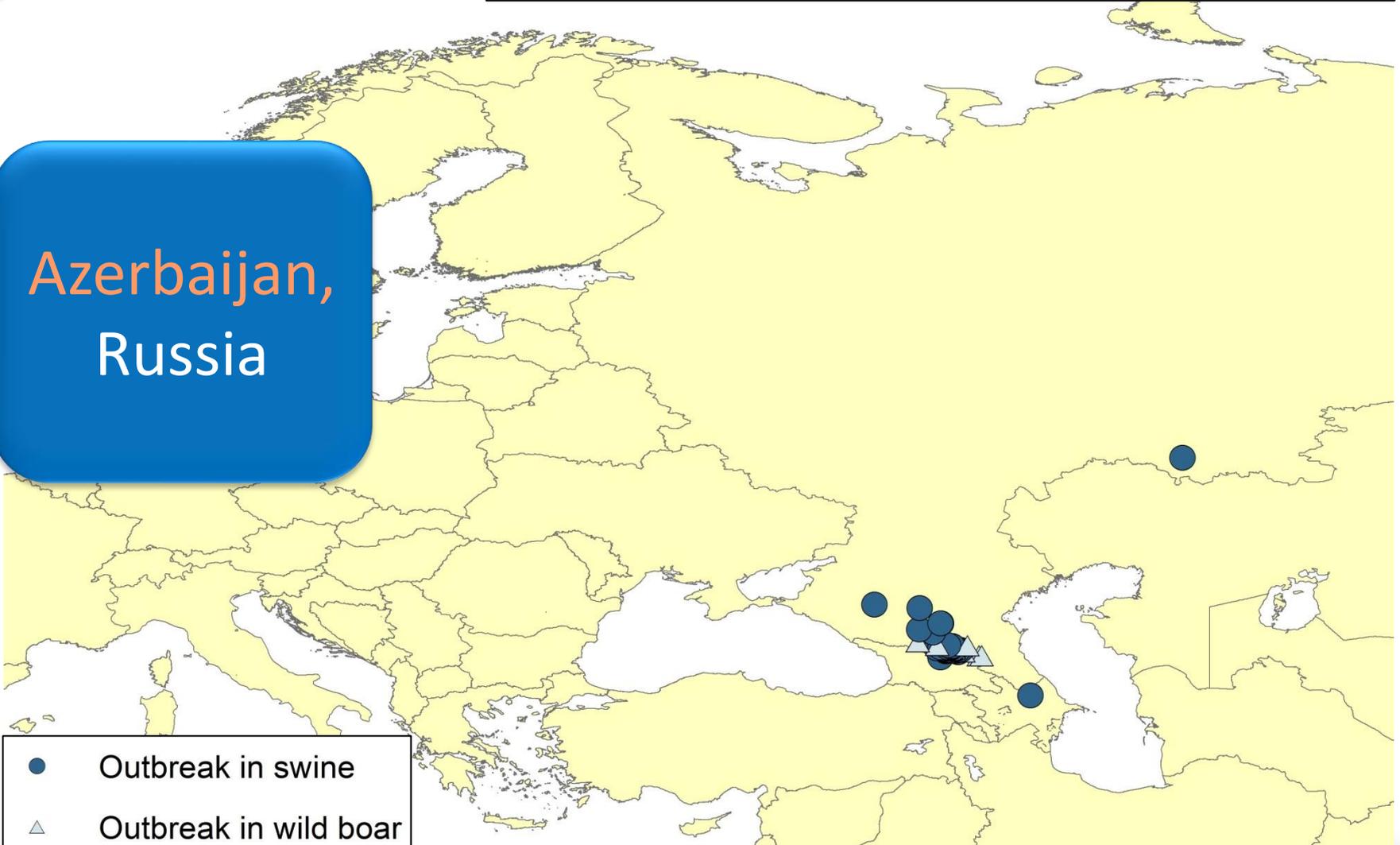
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2008

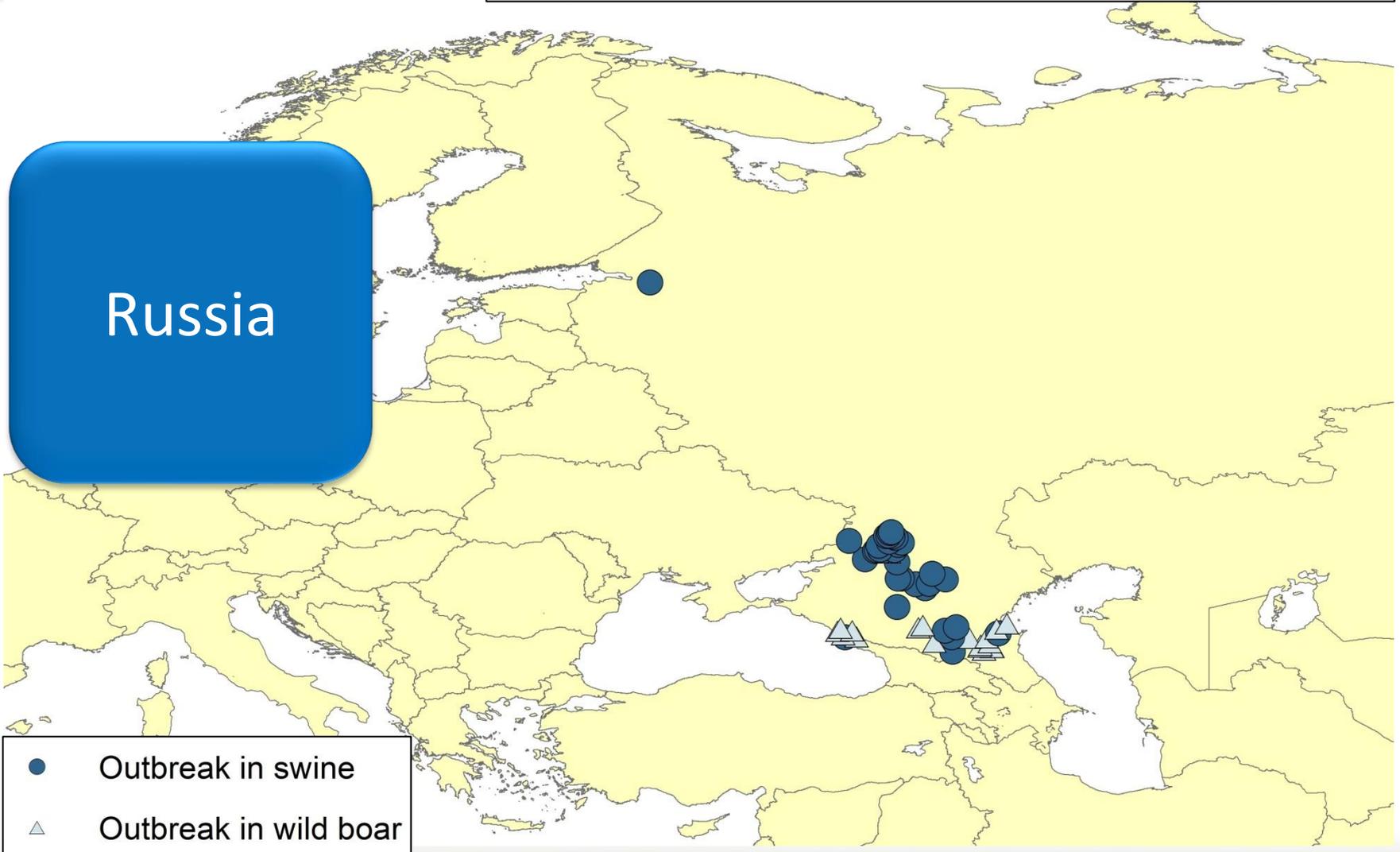
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Azerbaijan,
Russia



2009

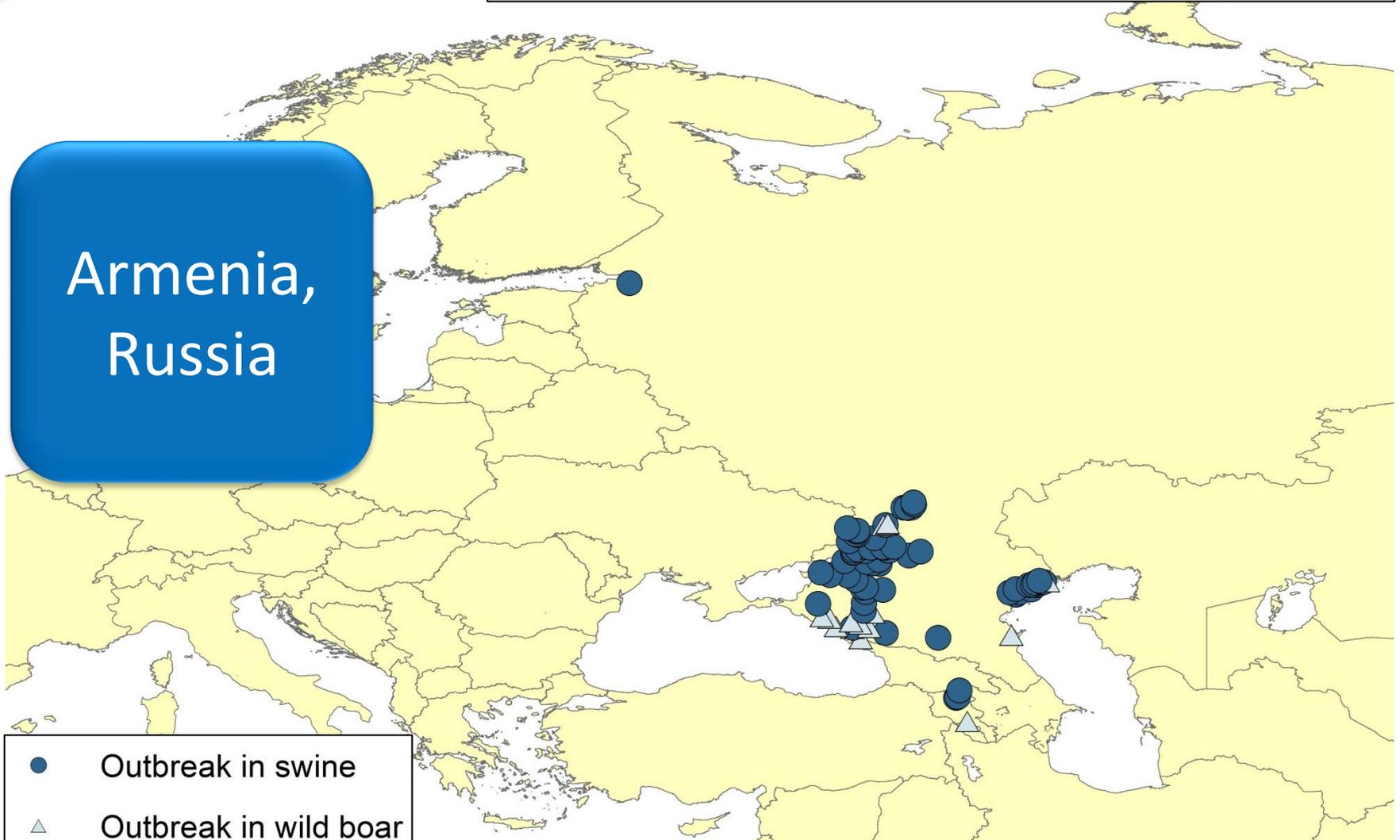
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2010

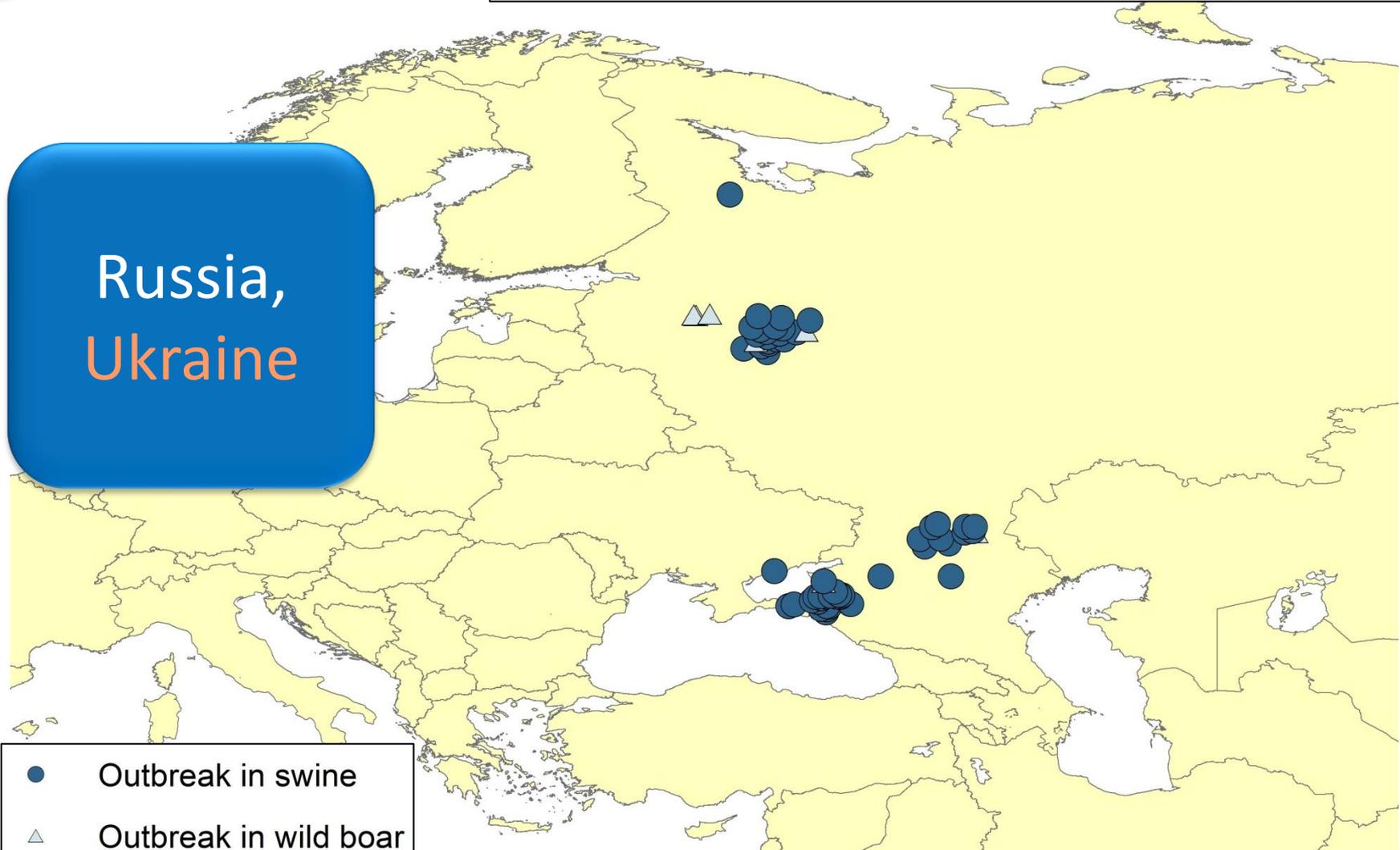
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Armenia,
Russia



2012

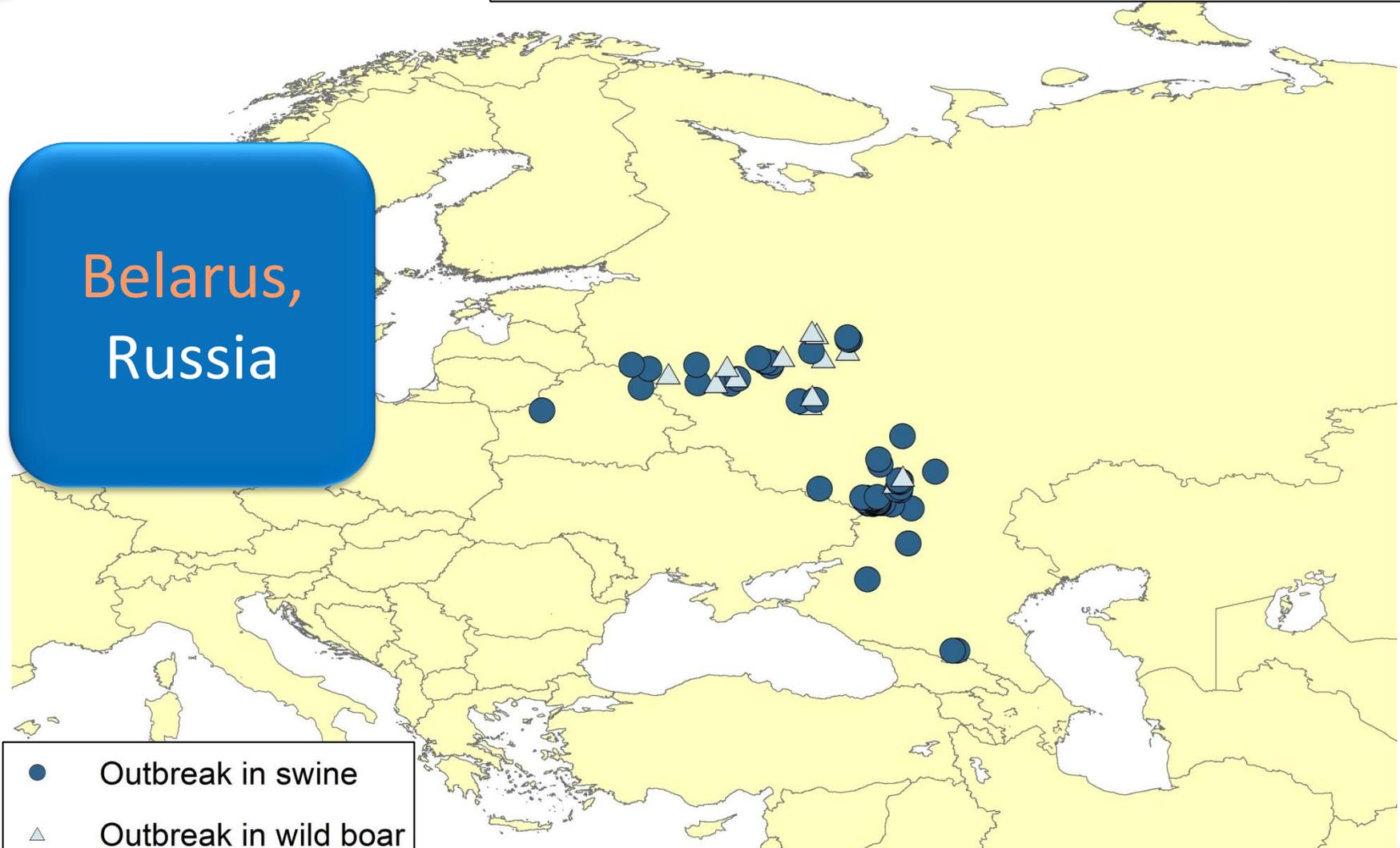
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2013

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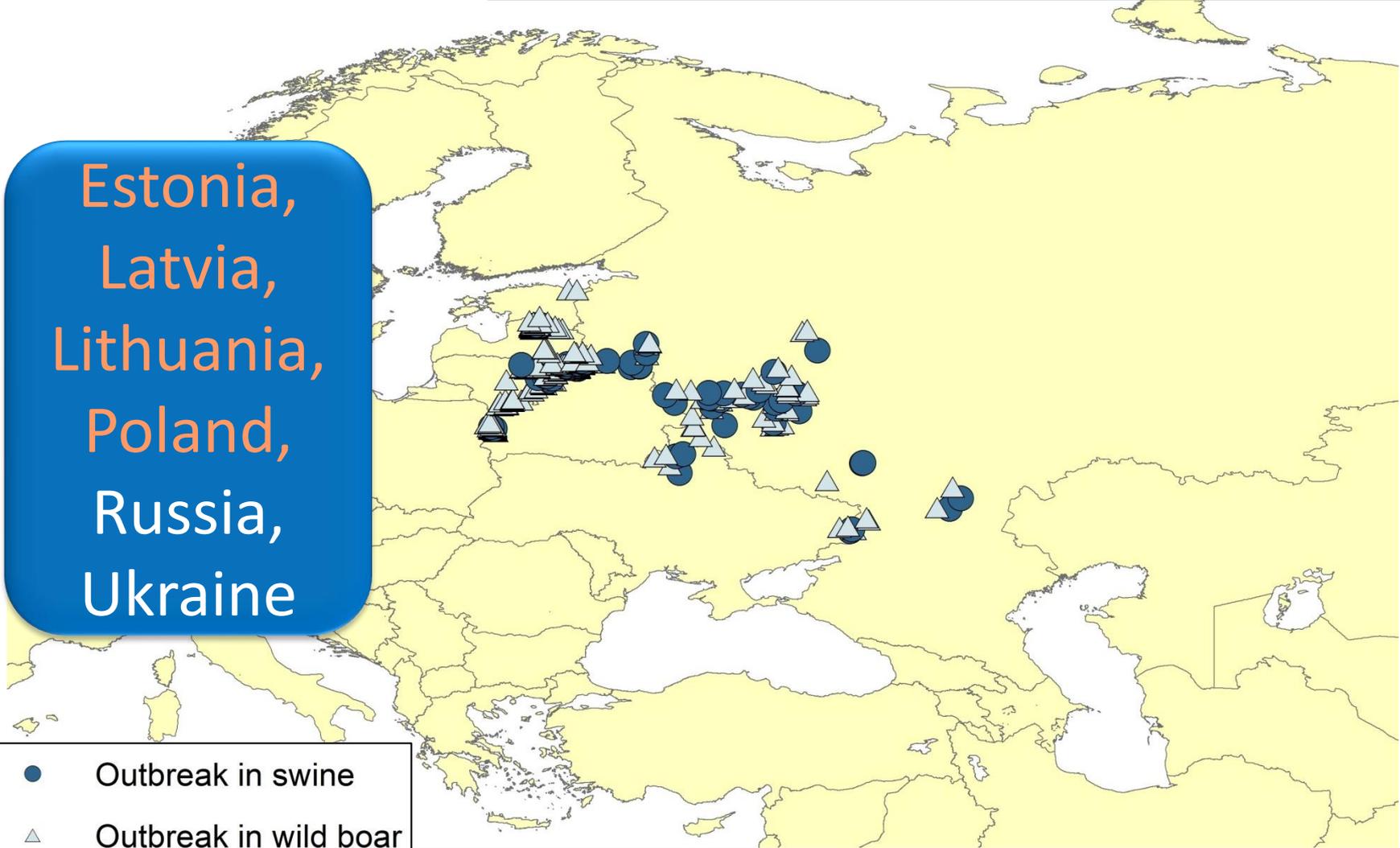
Belarus,
Russia



2014

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Estonia,
Latvia,
Lithuania,
Poland,
Russia,
Ukraine



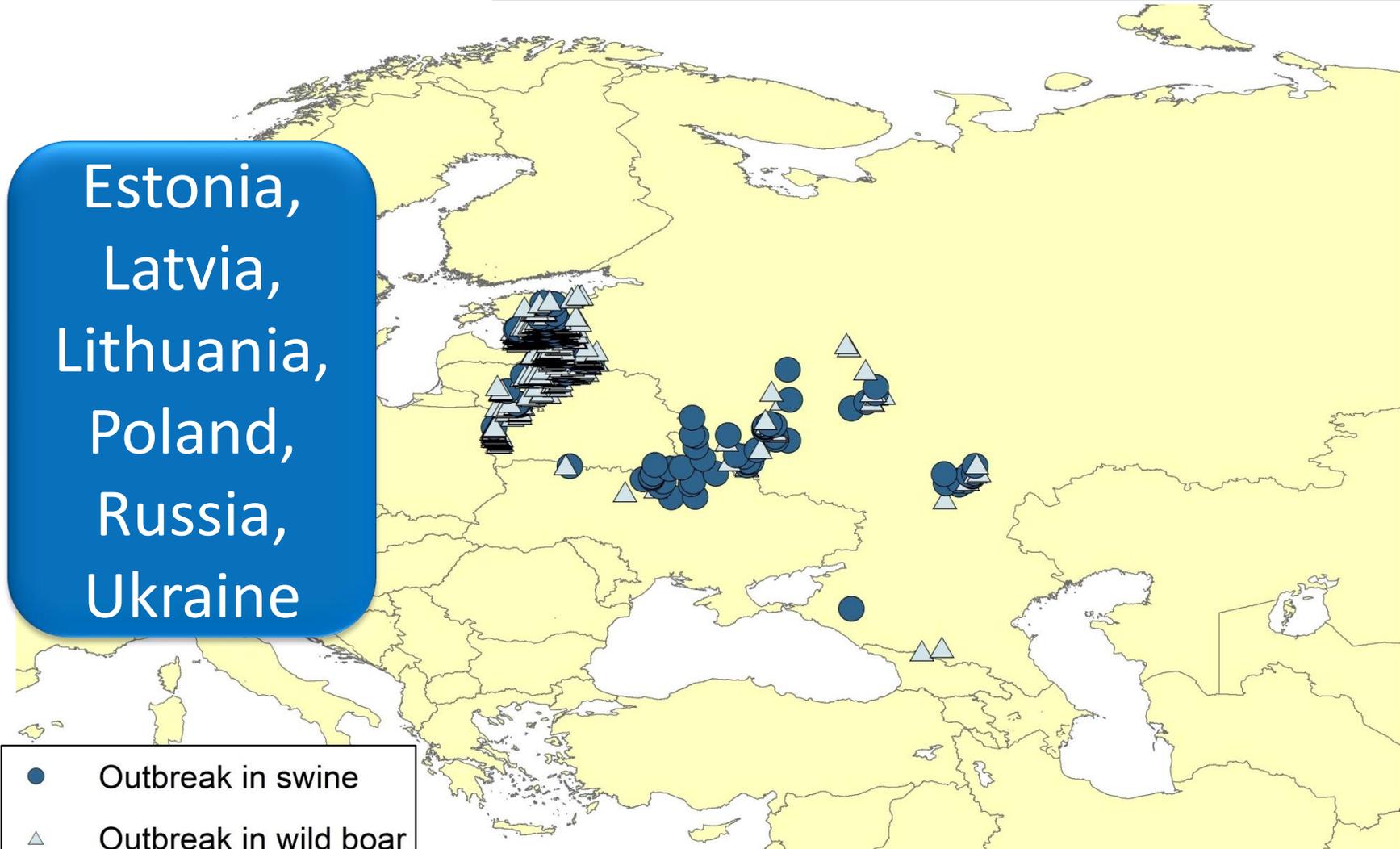
- Outbreak in swine
- △ Outbreak in wild boar

2015

(up to 21/09/2015)

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Estonia,
Latvia,
Lithuania,
Poland,
Russia,
Ukraine



- Outbreak in swine
- △ Outbreak in wild boar

Analysis of WAHIS data

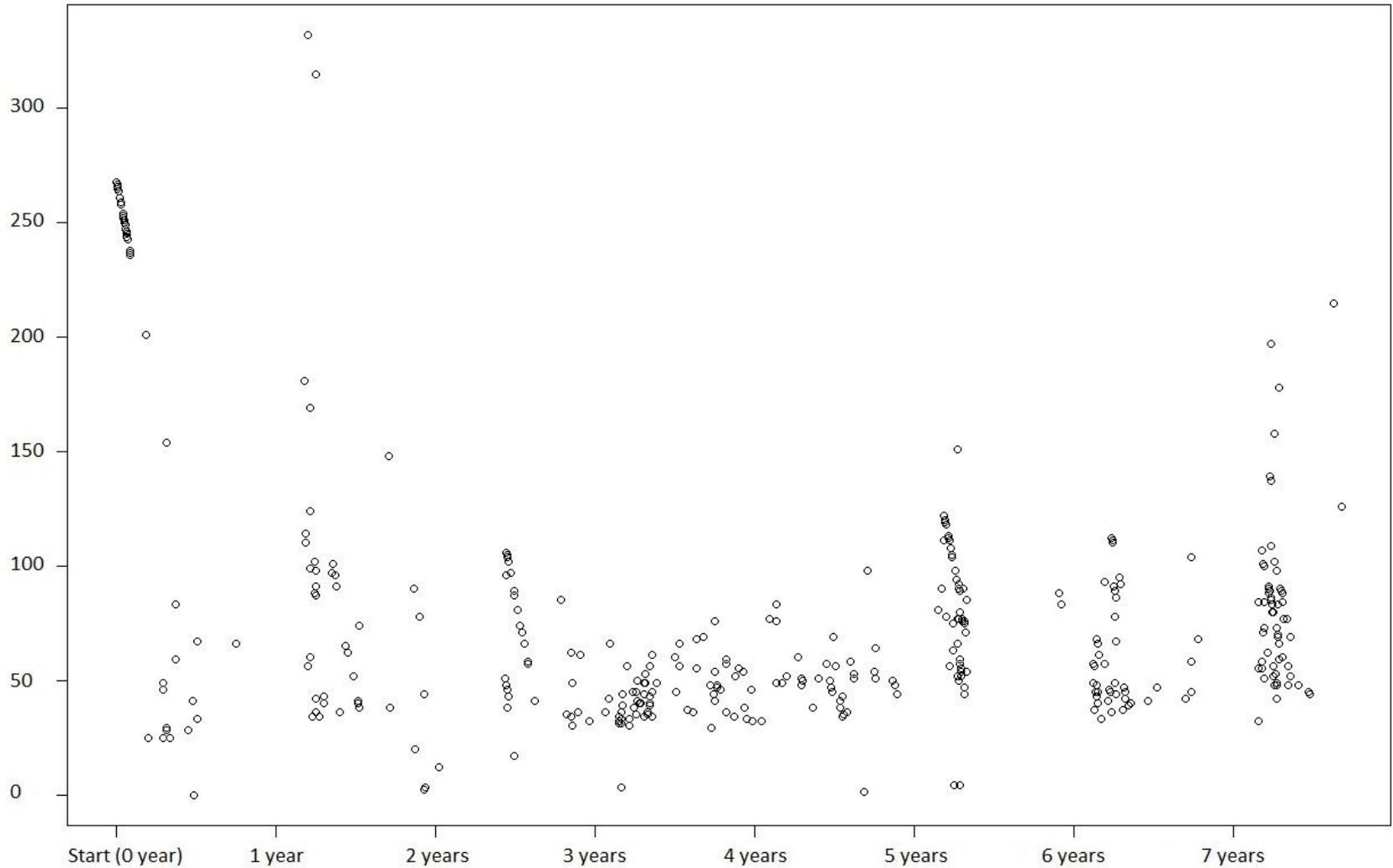
*Between 23 April 2007 and 21 September 2015, these European countries managed to resolve **472 outbreaks** in domestic pigs*



Has the time needed to control the outbreaks in swine has decreased between 2007 and 2014?

Time to close outbreaks in swine, 2007-2014

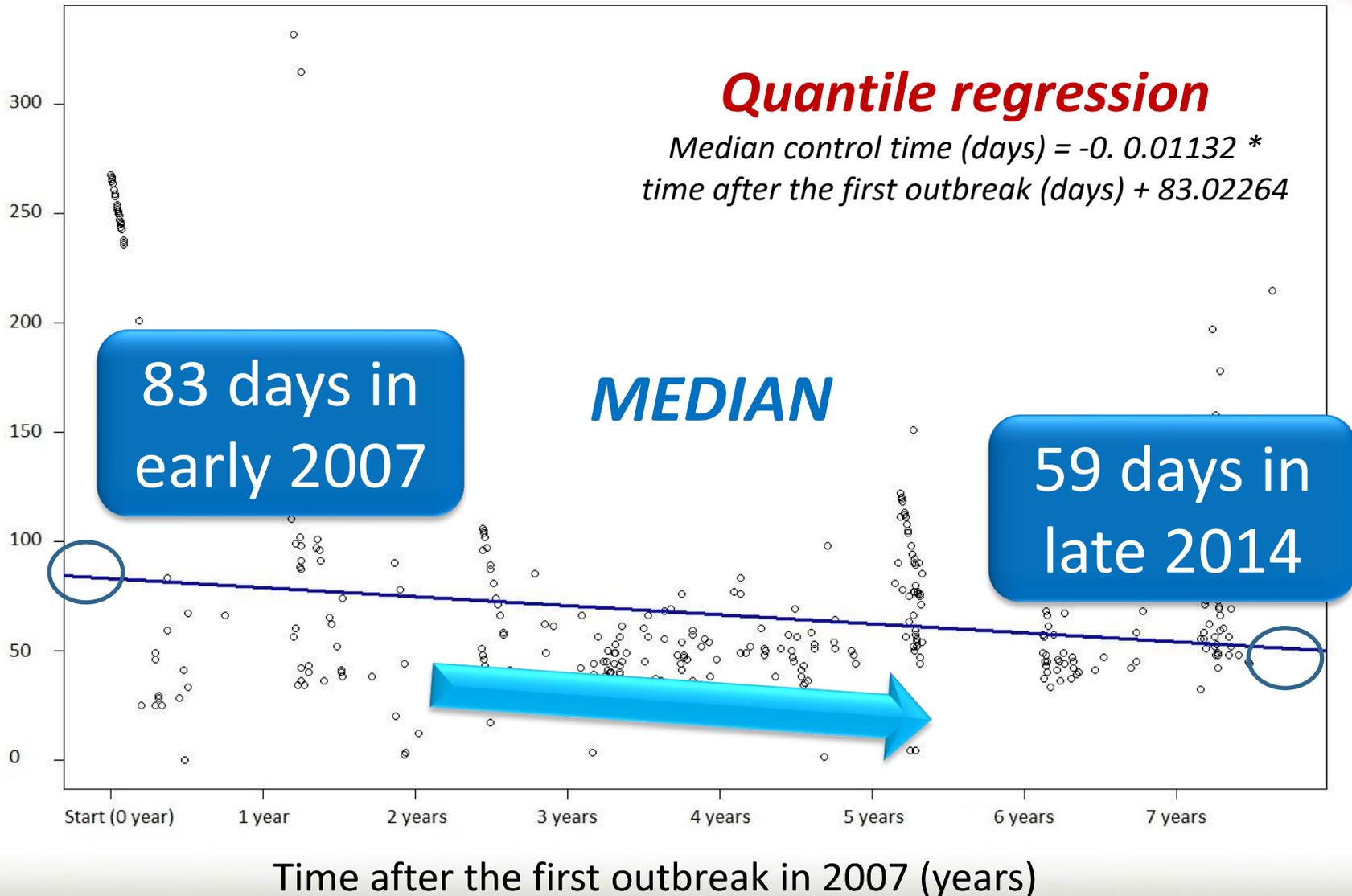
Time between start and end of an outbreak (days)



Time after the first outbreak in 2007 (years)

Time to close outbreaks in swine, 2007-2014

Time between start and end of an outbreak (days)



Conclusions - ASF



- In more than 8 years, 1210 outbreaks reported in wild boars & 549 outbreaks reported in domestic pigs through INs and FURs
- ASF newly spread to 4 European countries in 2014
- In 2015, 97 new outbreaks in swine & 854 in wild boars
- Countries more efficient at controlling outbreaks in swine (decrease of duration time)



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1. African swine fever
- 2. Infection with peste des petits ruminants virus**
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4. Infection with rabies virus
5. Brucellosis (*Brucella abortus* and *Brucella melitensis*)

PPR distribution

1 January 2014 – 21 September 2015



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Global Strategy for the eradication of PPR by 2030

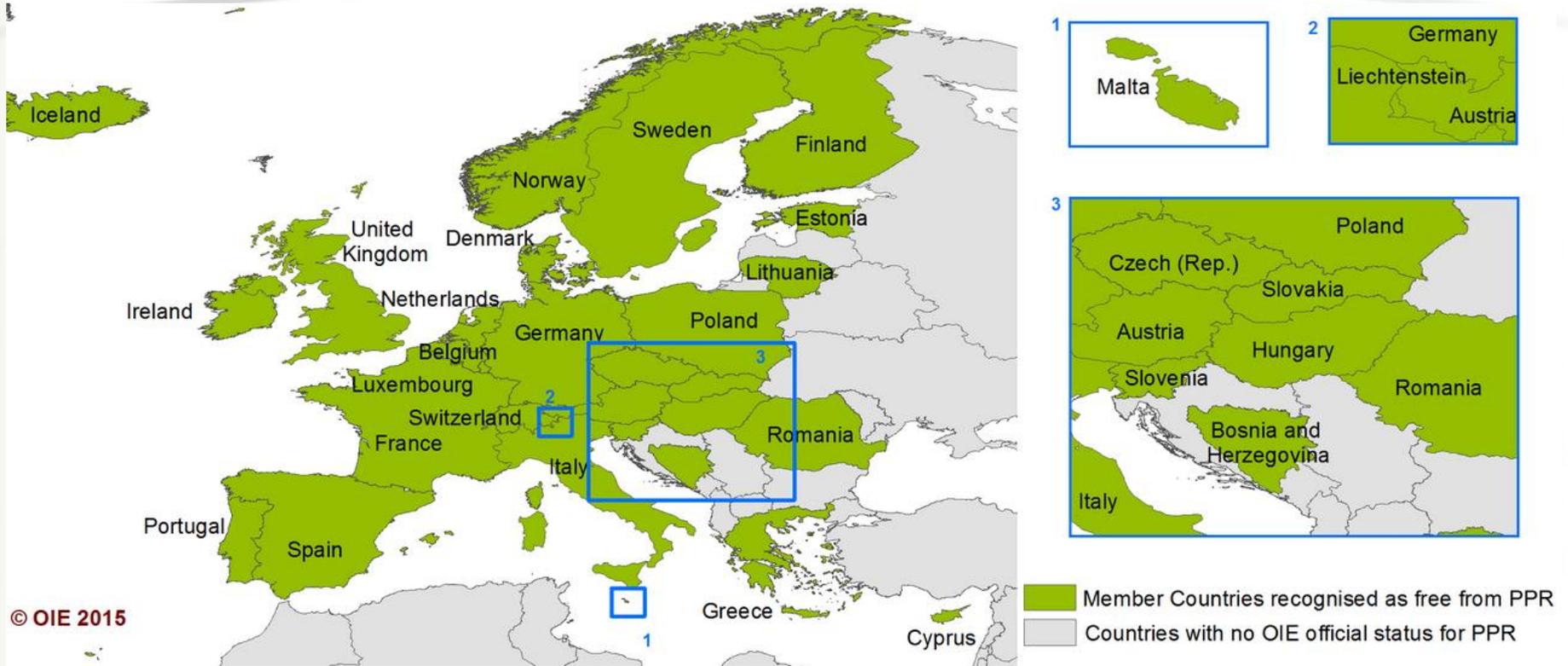


2 countries affected in Europe : Israel & Turkey



OIE Member Countries' official PPR status

updated May 2015



According to Resolution No. 23 (83rd General Session of World Assembly, May 2015), **30 Member Countries are free of PPR**

What are the values of spread and speed of PPR in other world Regions?



- **Asia** : mean **distance of spread from the endemic area** was over **1 600 km** in 2014 (according to OIE data)
- **North Africa** : mean speed diffusion calculated by the European Food Safety Authority (EFSA) in Tunisia was of **3.9 km/day** (95% CI 0.3 – 65.5)

(European Food Safety Authority (EFSA) AHAW Panel (EFSA Panel on Animal Health and Welfare), 2015. Scientific Opinion on peste des petits ruminants EFSA Journal 2015;13(1):3985, 94 pp. doi:10.2903/j.efsa.2015.3985)

Conclusions - PPR



- PPR present in 2 countries in Europe
- 30 OIE Member Countries official recognized free of PPR in Europe
- Highly transmissible disease, fast spread in other world regions in recent years
- Eradicating the disease in 2030 will entail collaboration, early detection, rapid reporting to the OIE, control of transboundary animal movements and use of vaccination when relevant



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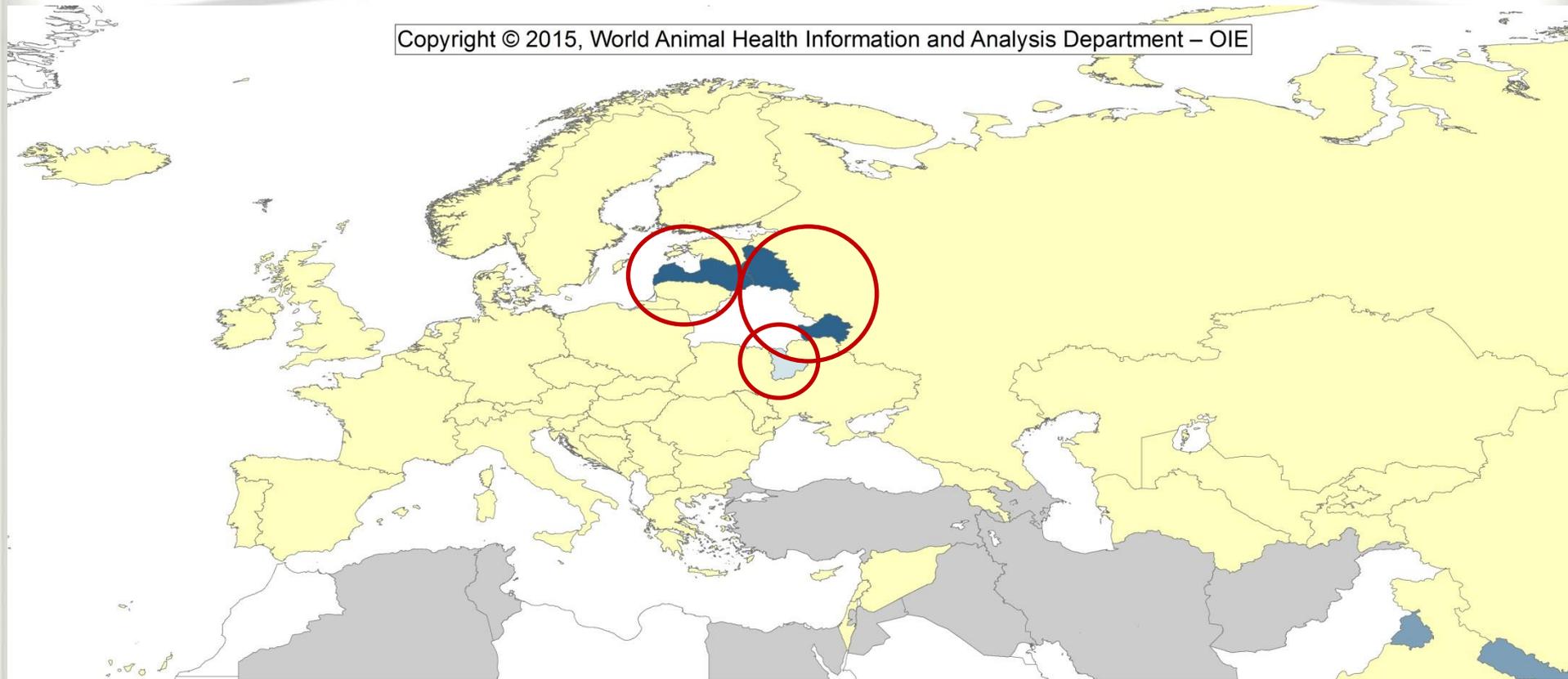
1. African swine fever
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CSF distribution

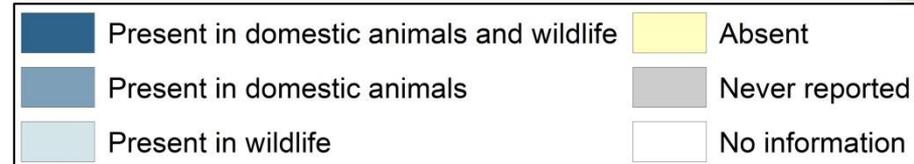
1 January 2014 – 21 September 2015



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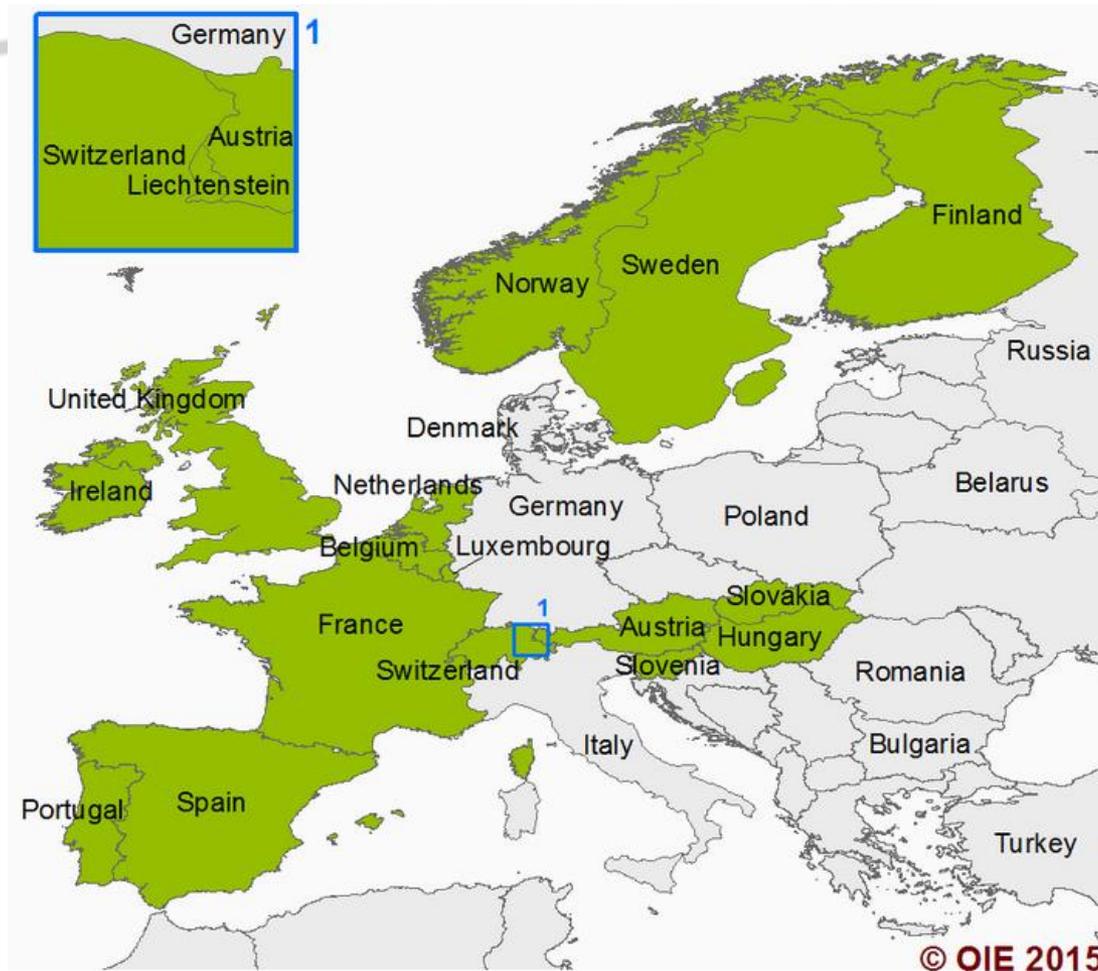


3 countries affected in Europe: Latvia, Russia and Ukraine



OIE Member Countries' official CSF status

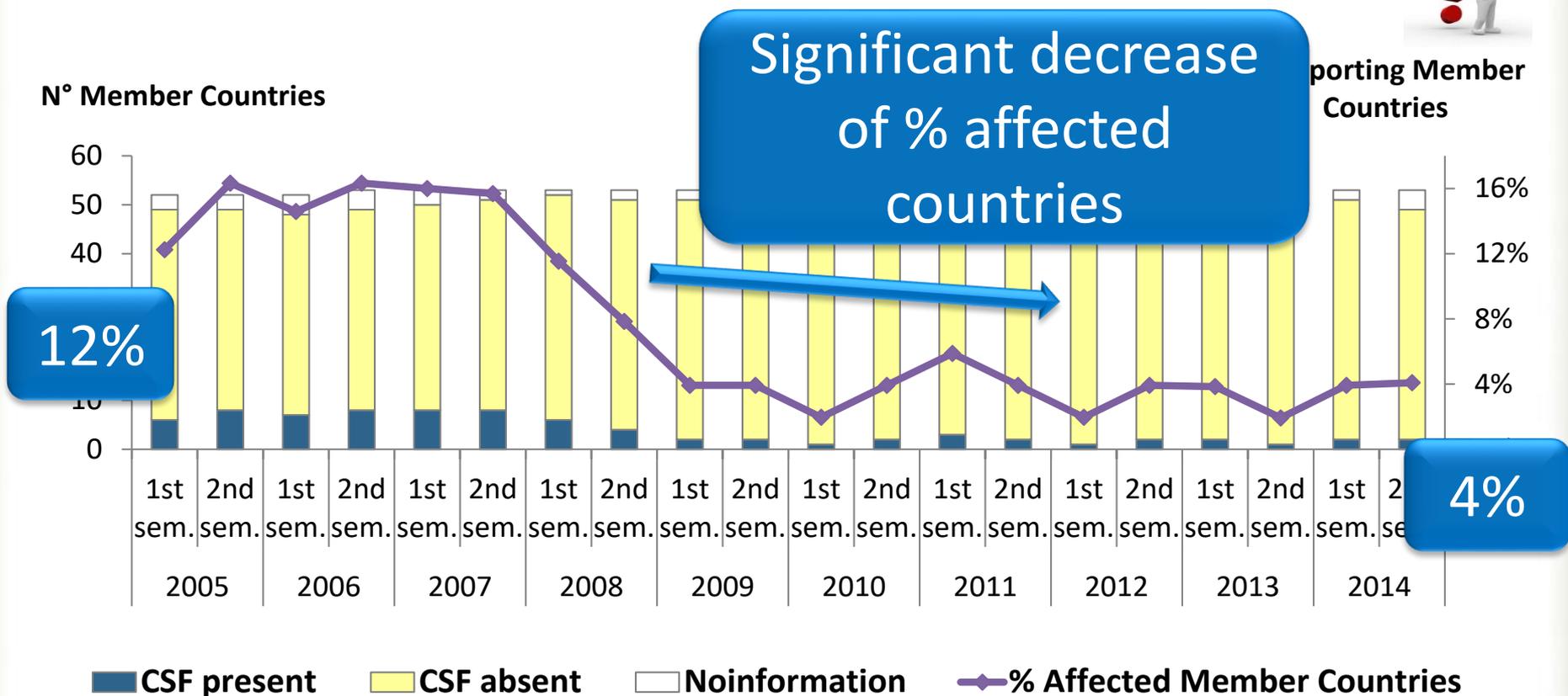
updated May 2015



According to Resolution No. 24 (83rd General Session of World Assembly, May 2015), **17 Member Countries are free of CSF**

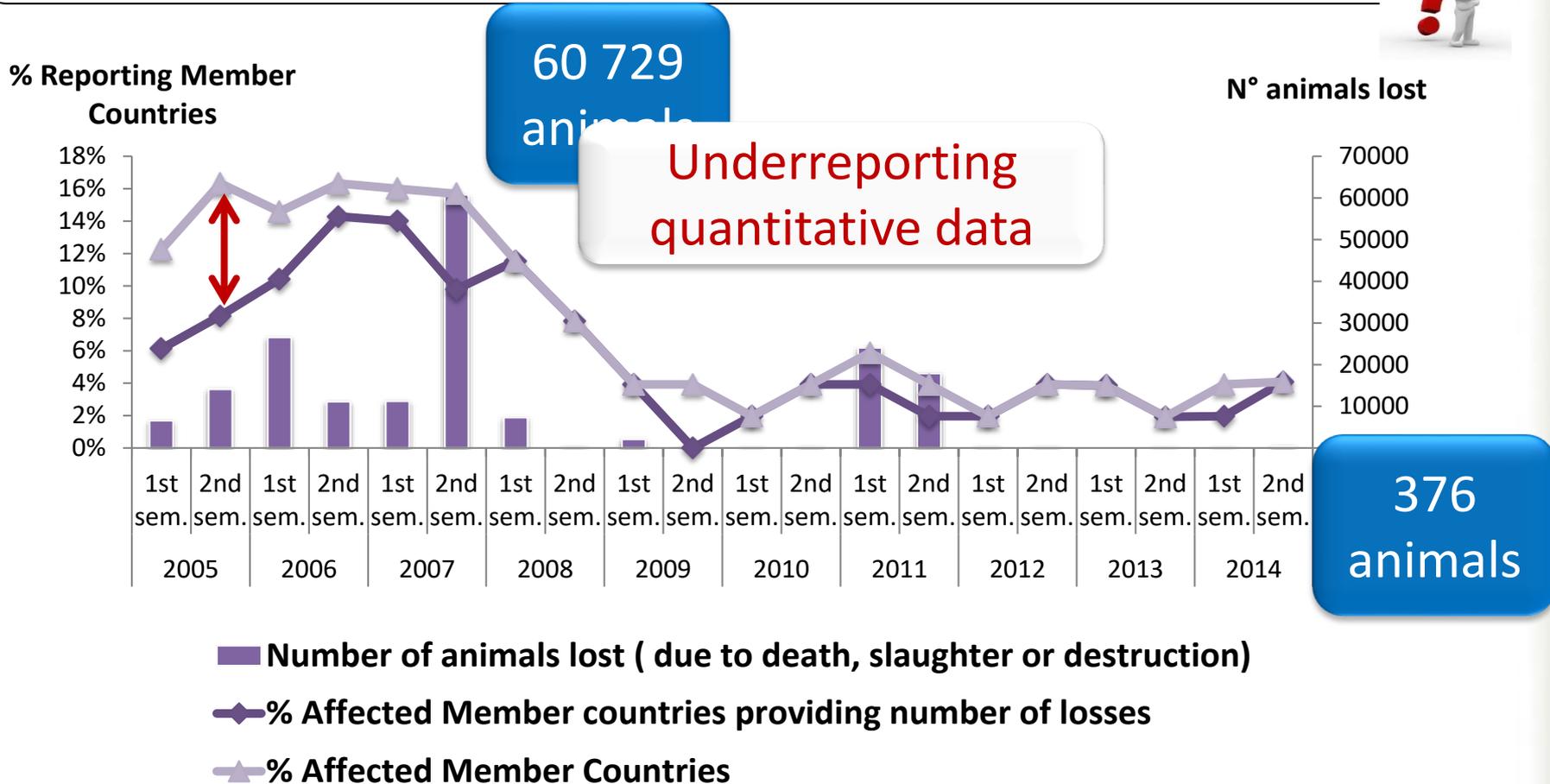
Evolution occurrence CSF in Europe

What has been the evolution of the occurrence of CSF in Europe since 2005?



Evolution losses due to CSF in Europe

What has been the evolution of losses in swine populations due to CSF in Europe since 2005?



Conclusions - CSF



- CSF present in 3 countries in Europe
- 17 OIE Member Countries official recognized free of CSF in Europe
- Significant improvement with years in the region & decrease of direct losses due to CSF



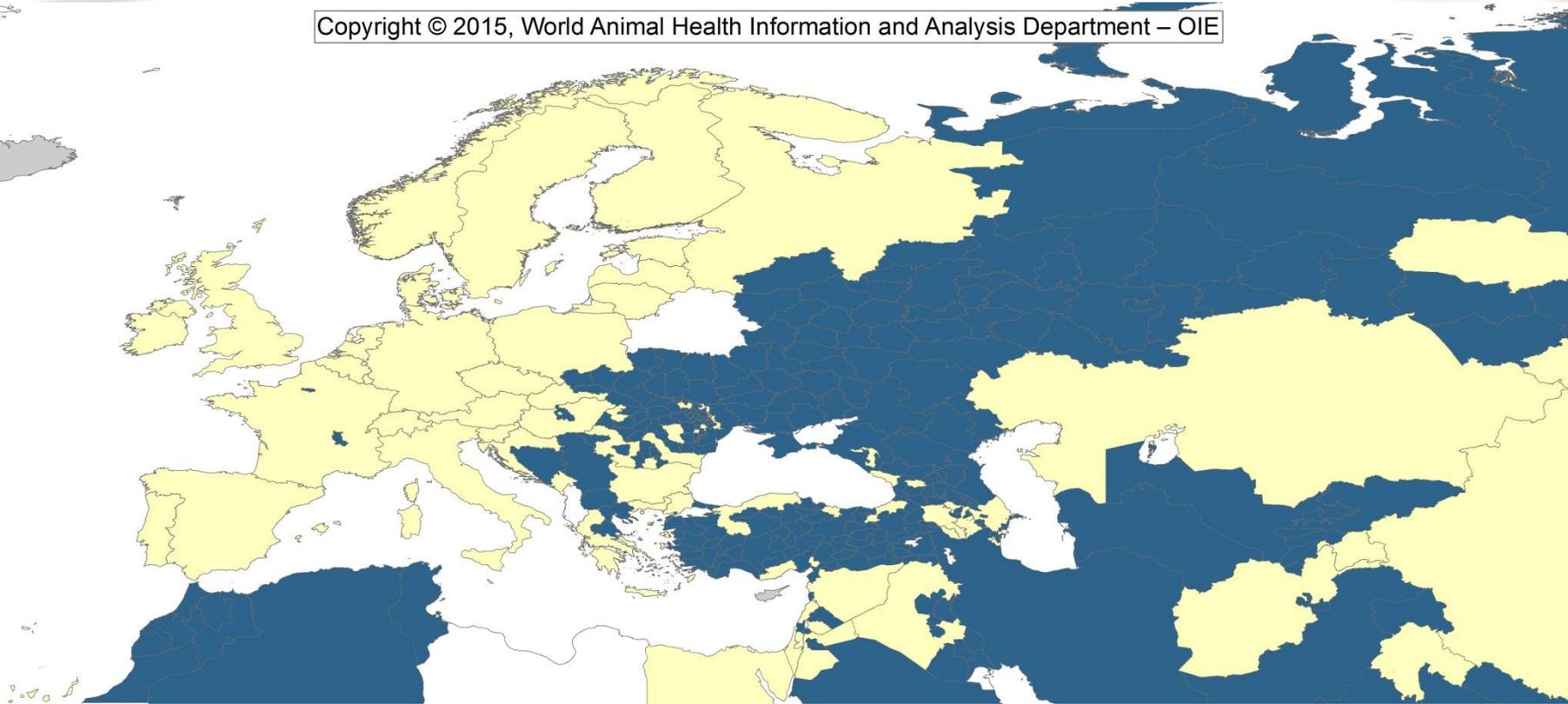
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1. African swine fever
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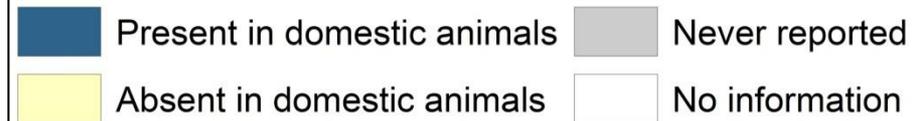
Rabies distribution in domestic animals

1 January 2014 – 21 September 2015

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21 countries affected in Europe



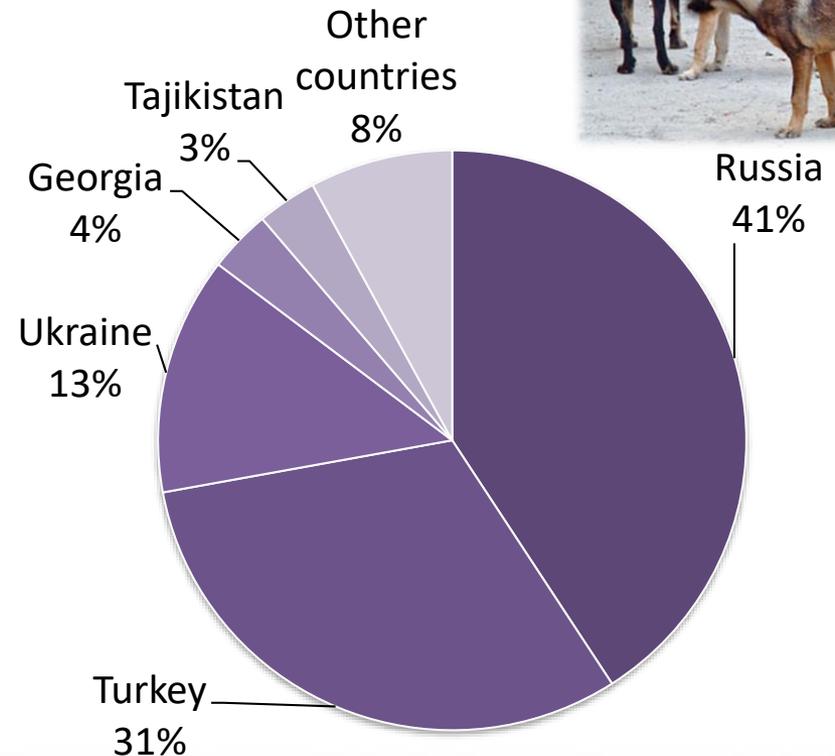
Rabies in domestic animals

1 January 2014 – 21 September 2015



Affected species	Total n° cases
Dogs	2 543 (48%)
Cattle	1 348 (25%)
Cats	1 027 (19%)
Sheep / goats	238
Cervidae	62
Equidae	55
Swine	11
Camelidae	2
Rabbits	1
TOTAL	5287

Overall distribution of cases in dogs



2014

Humans cases reported: 19 in 6 countries



To interrupt the disease's infectious cycle
between animals and humans

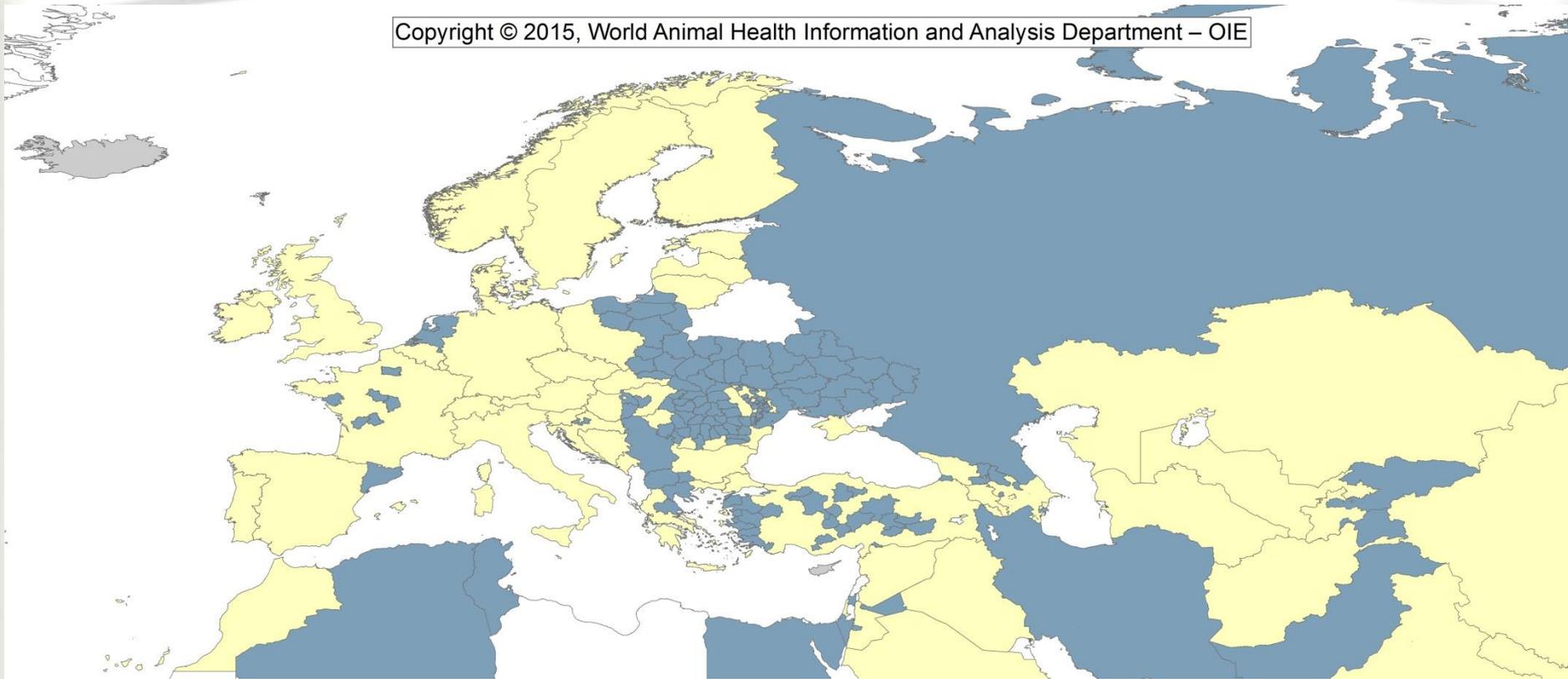
- **Mass dog vaccination campaigns** combined with **public information campaigns**.
- **Effective control of stray dog populations** and **responsible behaviour by dog owners** must be promoted.

Rabies distribution in wildlife

1 January 2014 – 21 September 2015



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21 countries affected in Europe



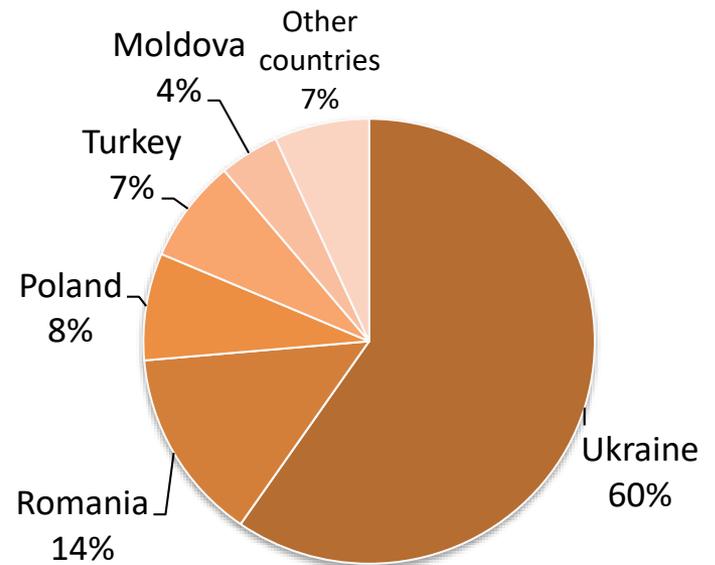
Rabies in wildlife

1 January 2014 – 21 September 2015



Order	Species	N° Cases
Artiodactyla	Western roe deer	12
	American bison	2
	TOTAL	14
Carnivora	Red Fox	950
	Wolf	24
	European Polecat	7
	Golden Jackal	5
	European Pine Marten	4
	European Badger	4
	Beech Marten	3
	Arctic Fox	3
	Wild cat	2
	Eurasian Lynx	1
	Raccoon dog	1
	Ursidae (unidentified)	1
	TOTAL	1005
	Chiroptera	Serotine
Brown big-eared bat		2
Vespertilionidae (unidentified)		1
Pteropodidae (unidentified)		1
TOTAL		38
Rodentia	House mouse	1

Overall distribution of cases in wild carnivores



Conclusions - Rabies



- Rabies **present in 25** countries in Europe
- Mainly present in **Eastern Europe**
- Significant **reservoir in wild carnivores** in Eastern Europe, involving mainly red fox.
- The OIE encourages Members with significant reservoir in dogs to continue the mass vaccination campaigns.



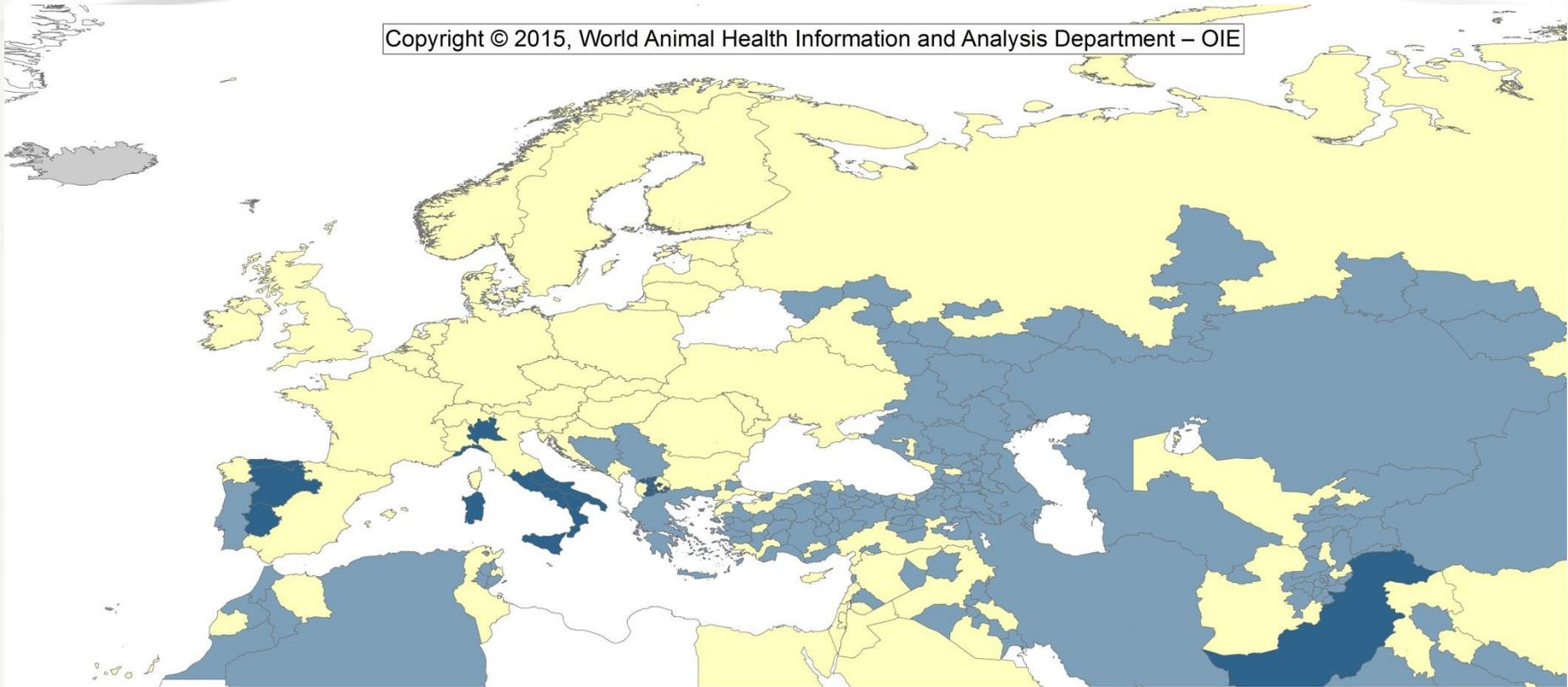
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1. African swine fever
2. Infection with peste des petits ruminants virus
3. Infection with classical swine fever virus
4. Infection with rabies virus
5. **Brucellosis (*Brucella abortus* and *Brucella melitensis*)**

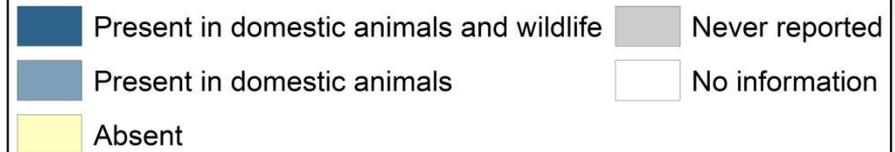
Brucellosis due to *B. abortus* distribution

1 January 2014 – 21 September 2015

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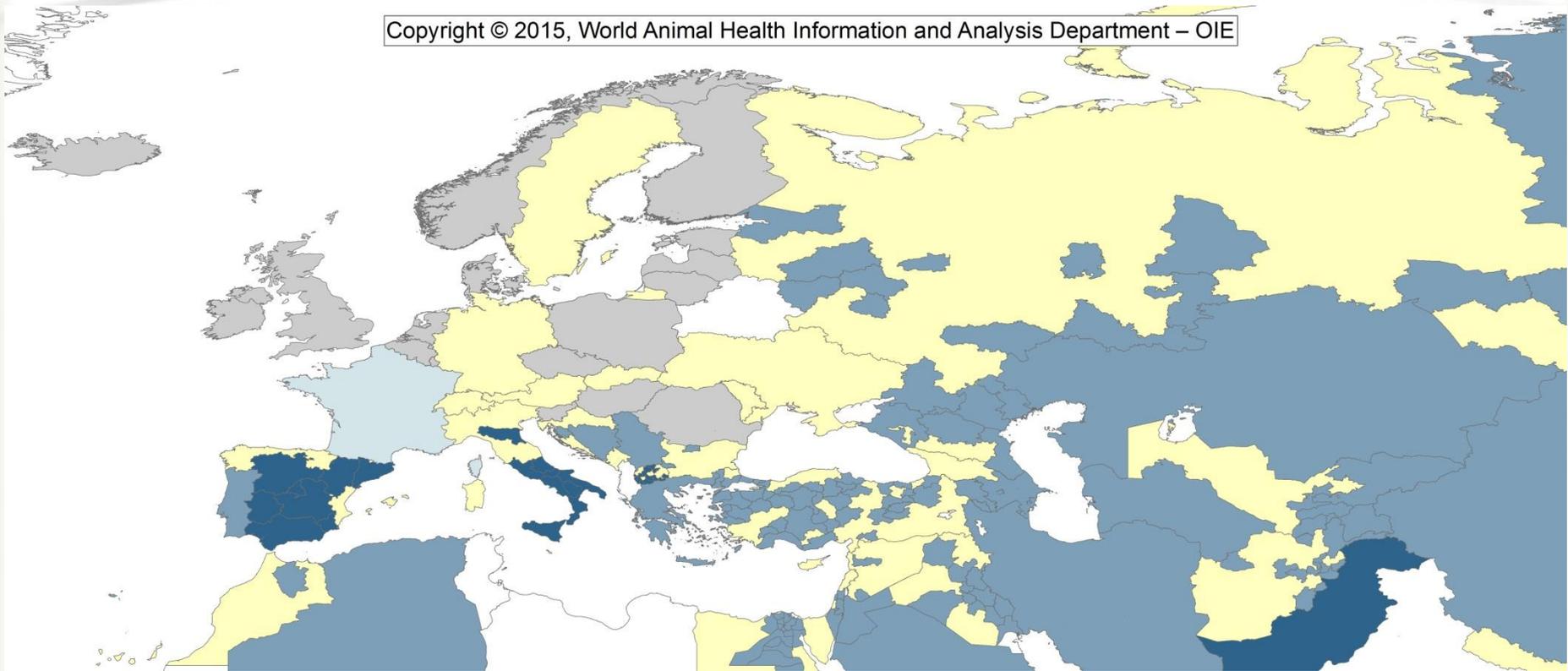
16 countries affected in Europe



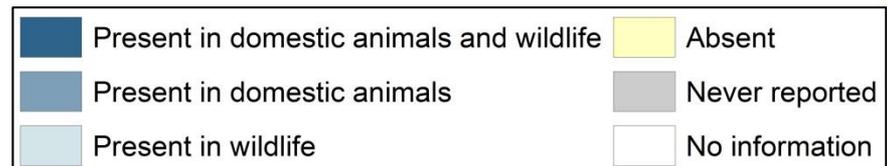
Brucellosis due to *B. melitensis* distribution

1 January 2014 – 21 September 2015

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19 countries affected in
Europe



LUMPY SKIN DISEASE



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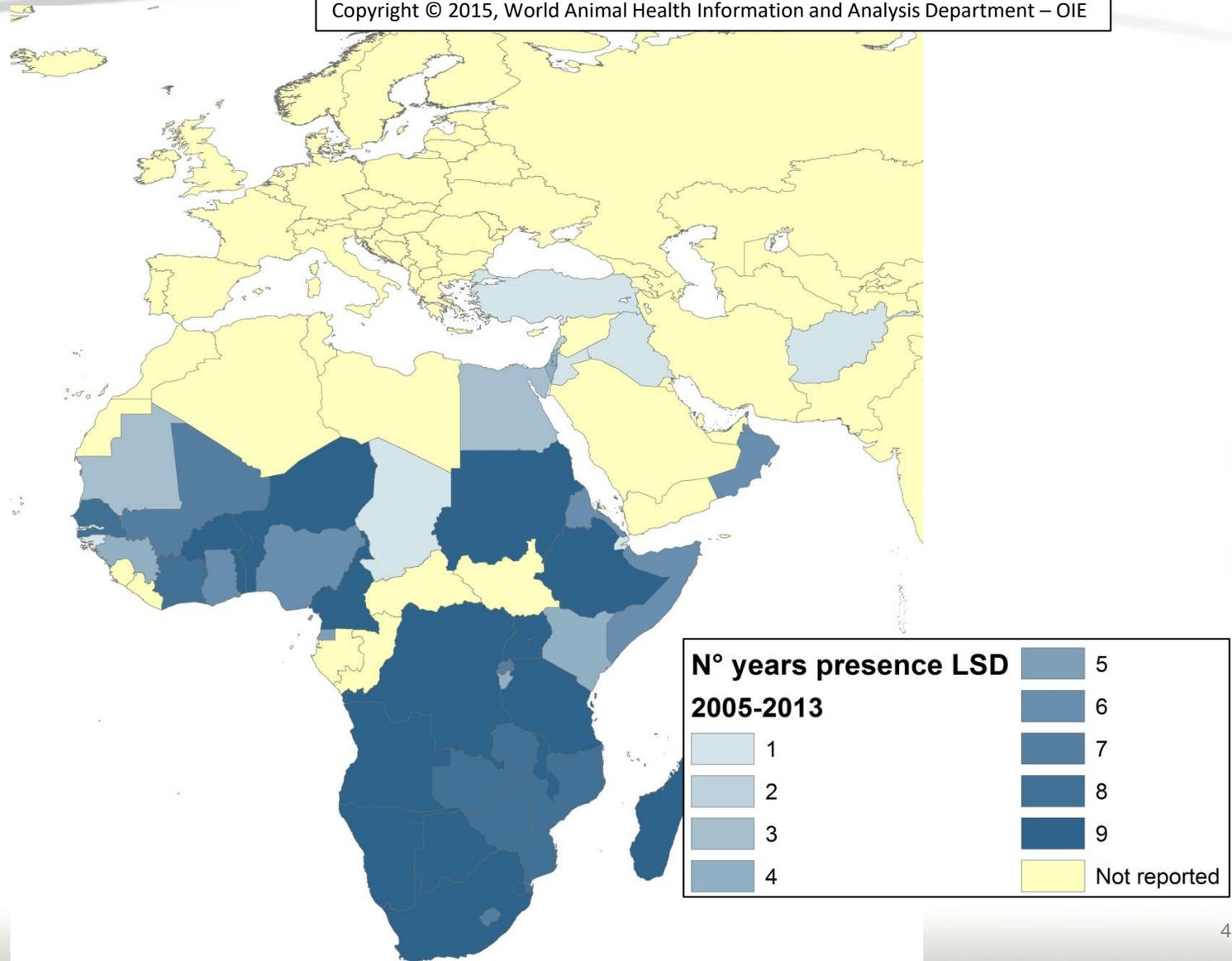
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Lumpy skin disease distribution

2005-2013



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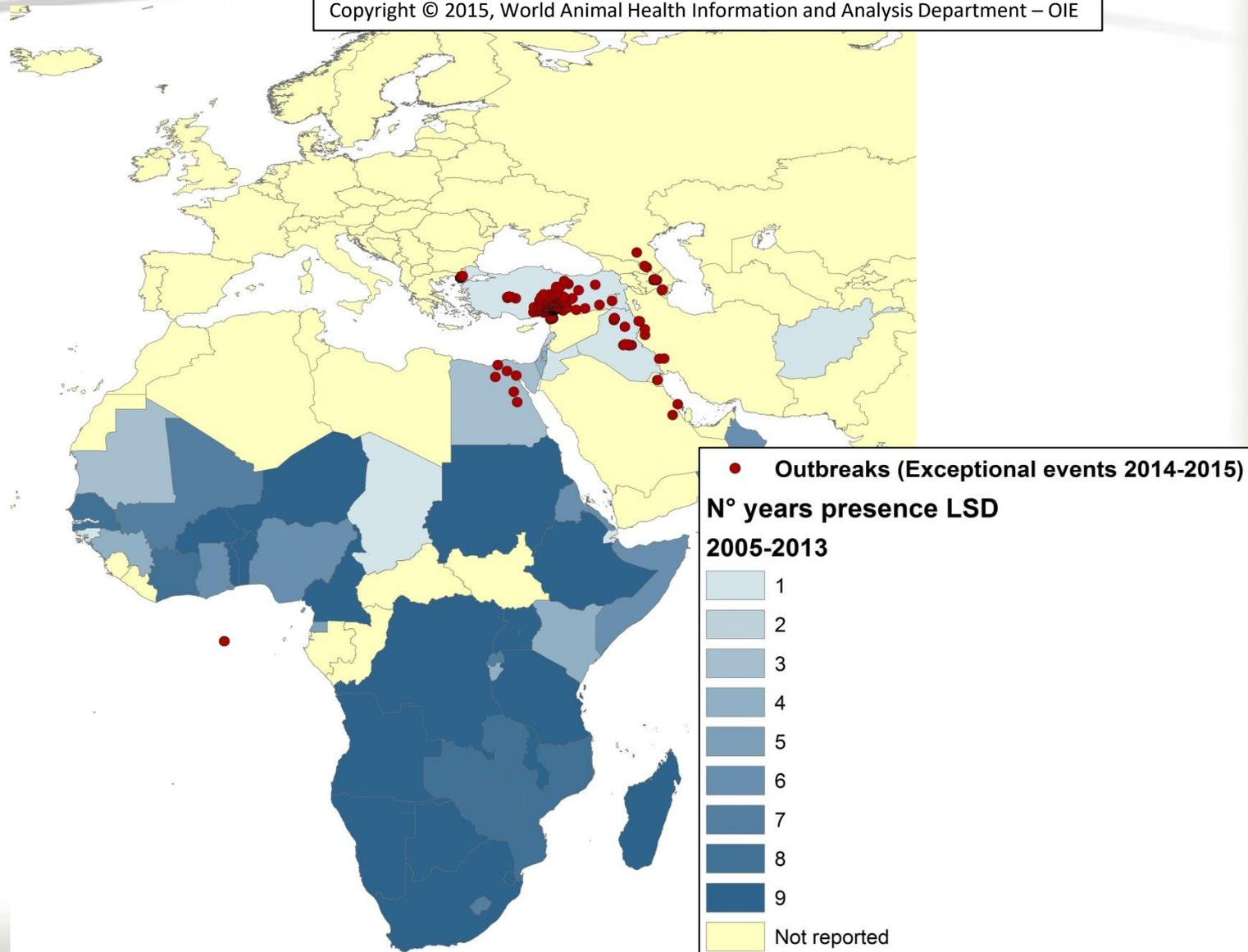


Lumpy skin disease distribution

Exceptional events (01/01/2014 – 21/09/2015)

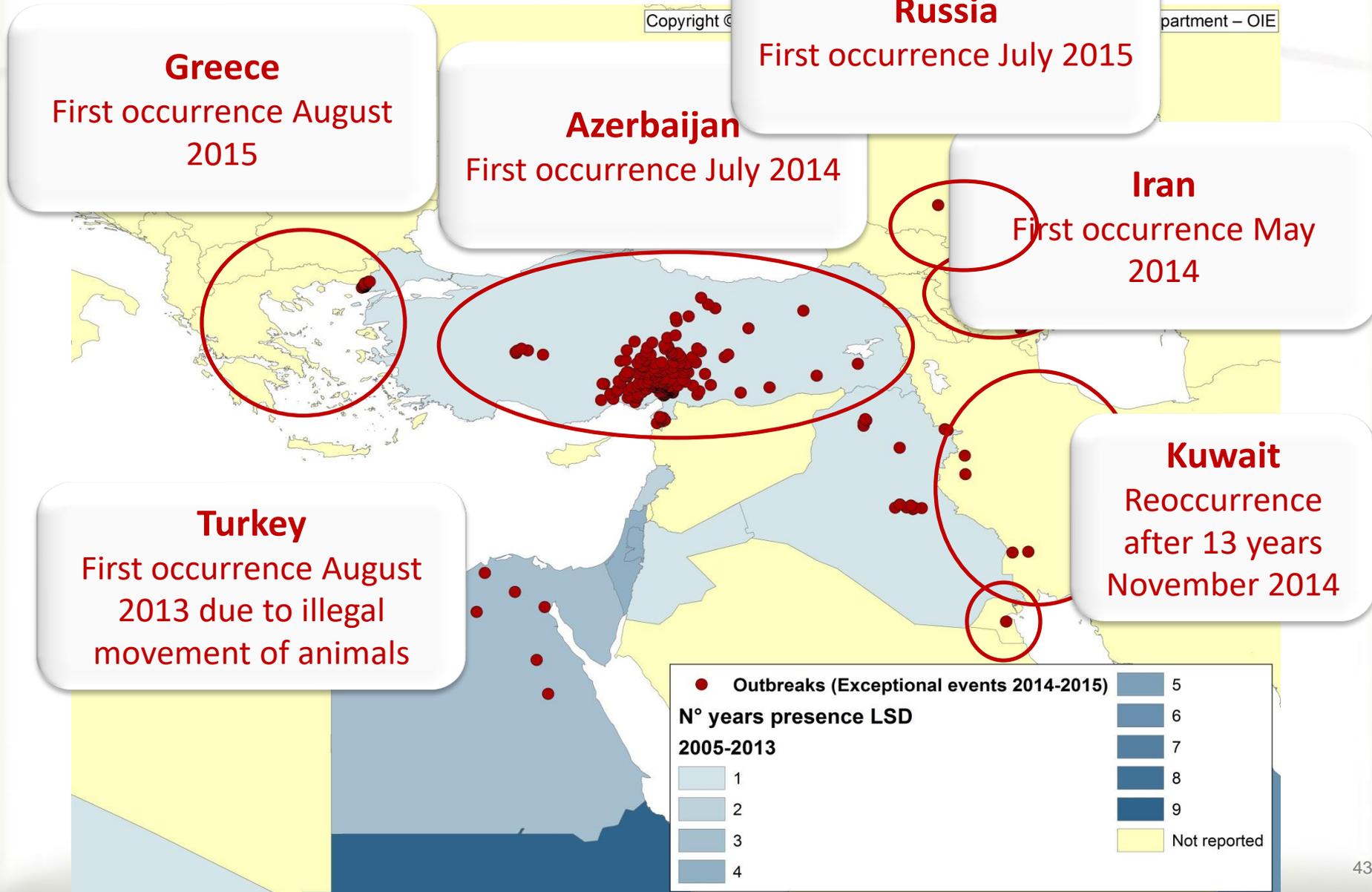


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Lumpy skin disease distribution

Exceptional events (01/01

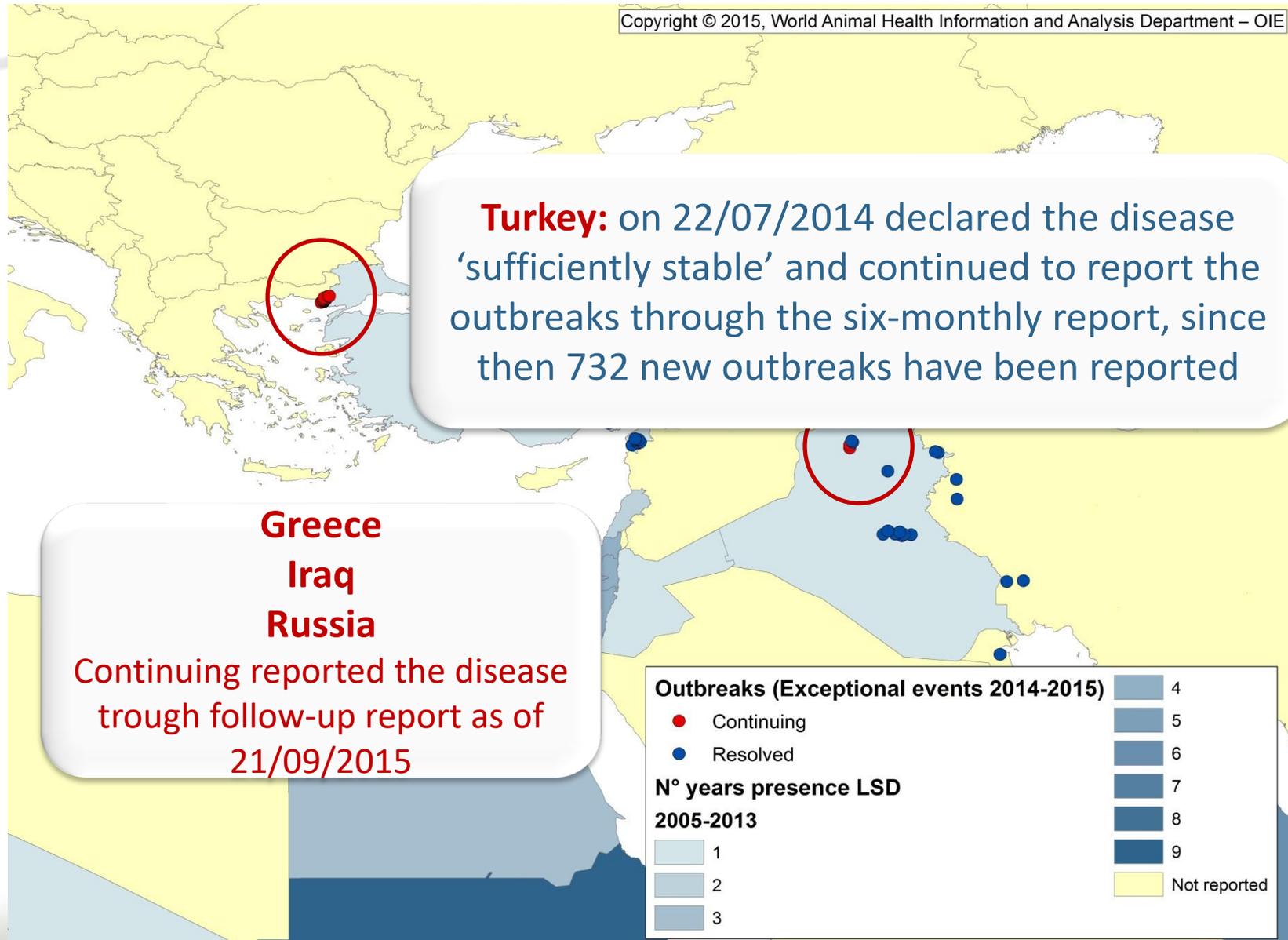


Lumpy skin disease distribution

Exceptional events (01/01/2014 – 21/09/2015)



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Conclusions – lumpy skin disease



- Rapid spread in neighbouring countries since first occurrence in Turkey in August 2013
- 4 European countries newly affected between 2013 and 2015
- Risk of spread in other countries

FOOT AND MOUTH DISEASE IN NORTHERN AFRICA



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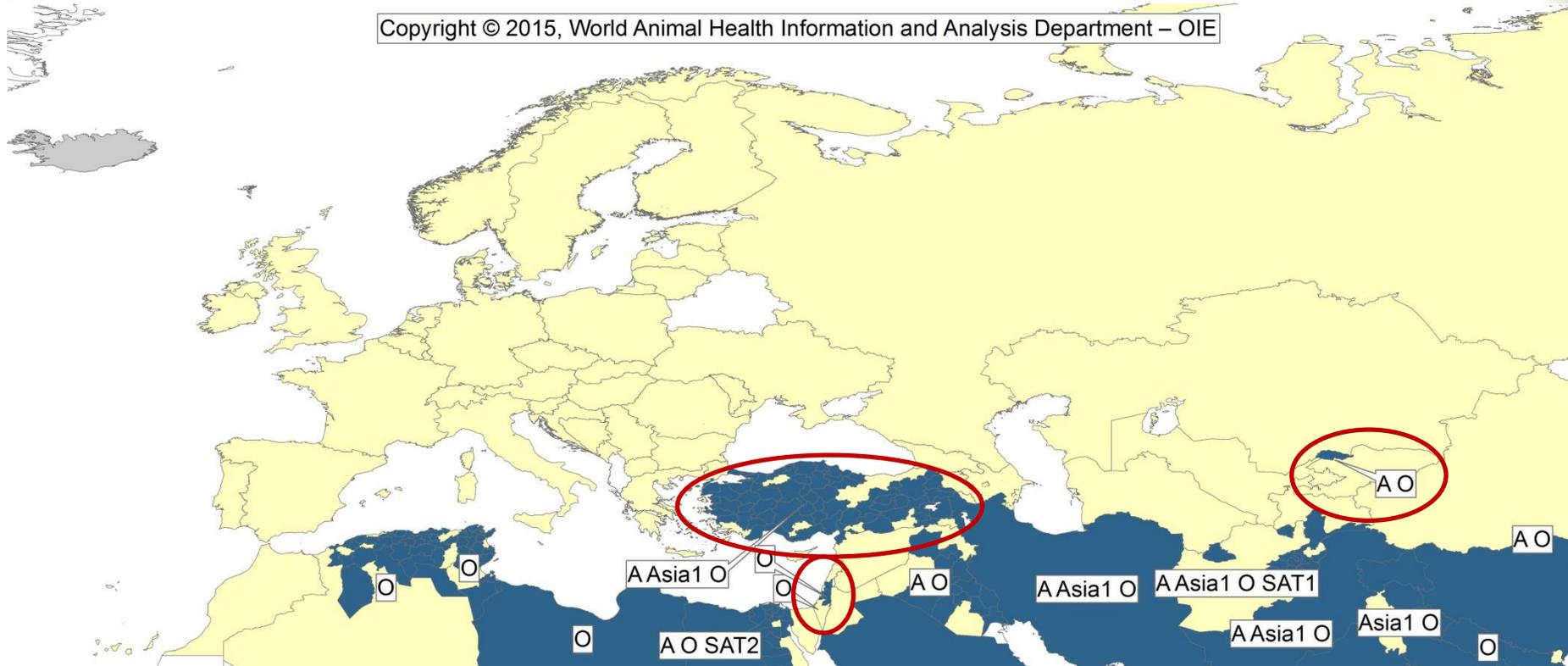
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FMD distribution

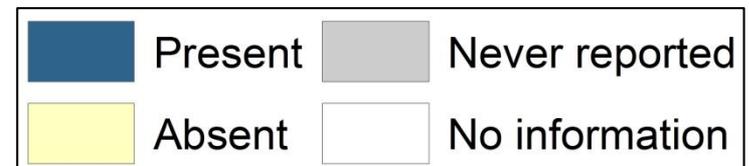
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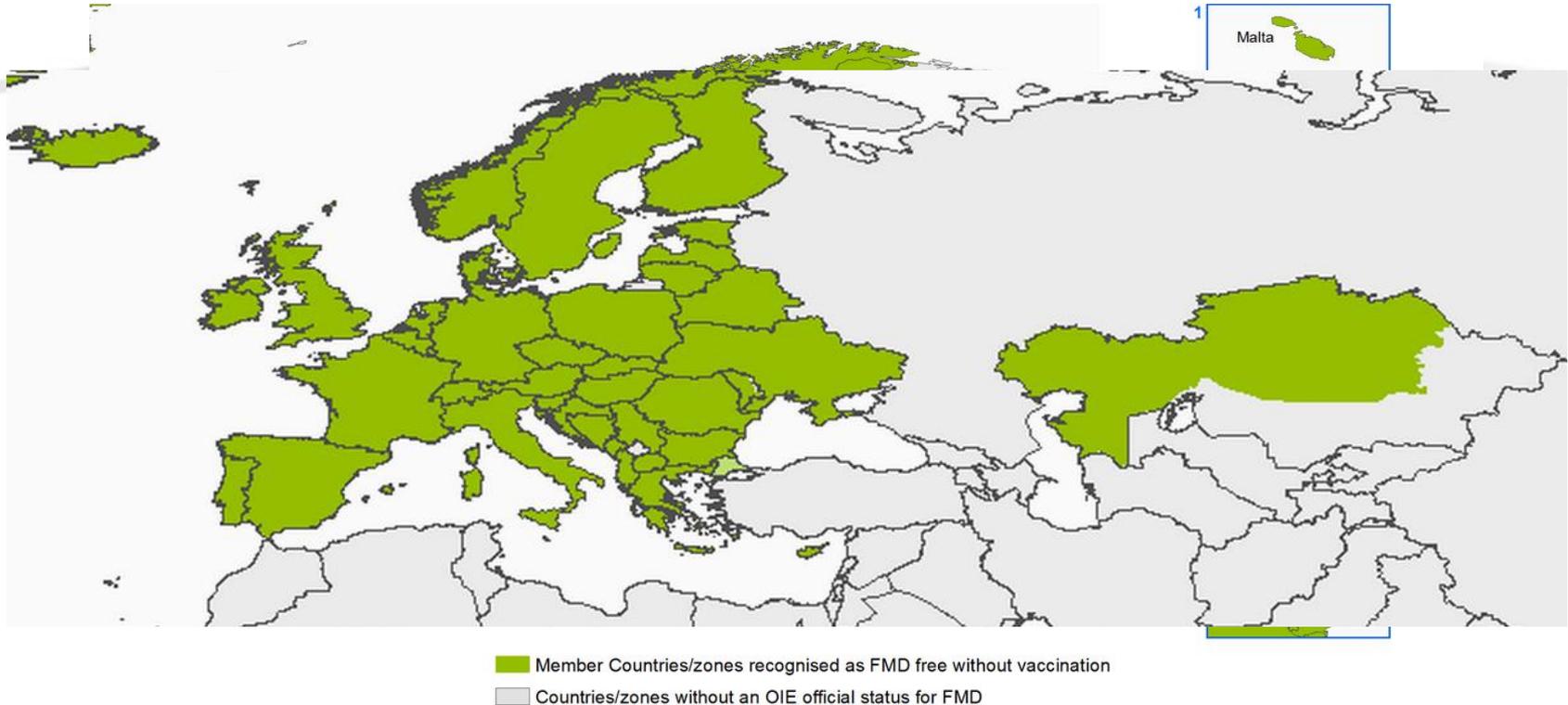


3 countries affected in Europe: Israel, Kyrgyzstan and Turkey



OIE Member Countries' official FMD status

updated May 2015



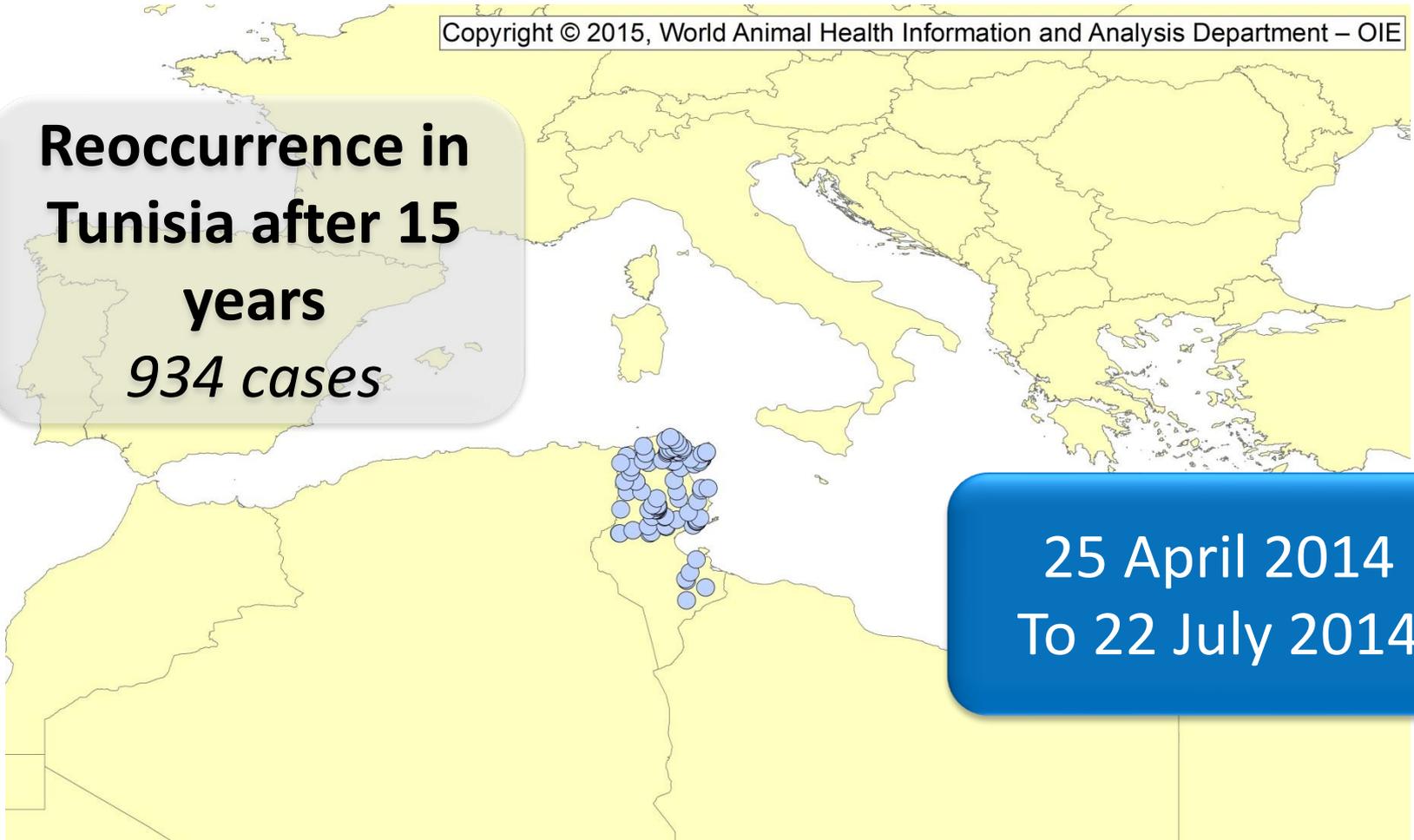
- 39 Member Countries recognised as FMD free where vaccination is not practised, according to the provisions of Chapter 8.7. of the Terrestrial Code, Edition 2014
- 2 Member Countries having an FMD free zone where vaccination is not practised
- 1 Member Country having an FMD free zone where vaccination is practised
- No Member Country with endorsed official control programme for FMD

Cumulative FMD outbreaks in North Africa

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Reoccurrence in Tunisia after 15 years
934 cases

25 April 2014
To 22 July 2014

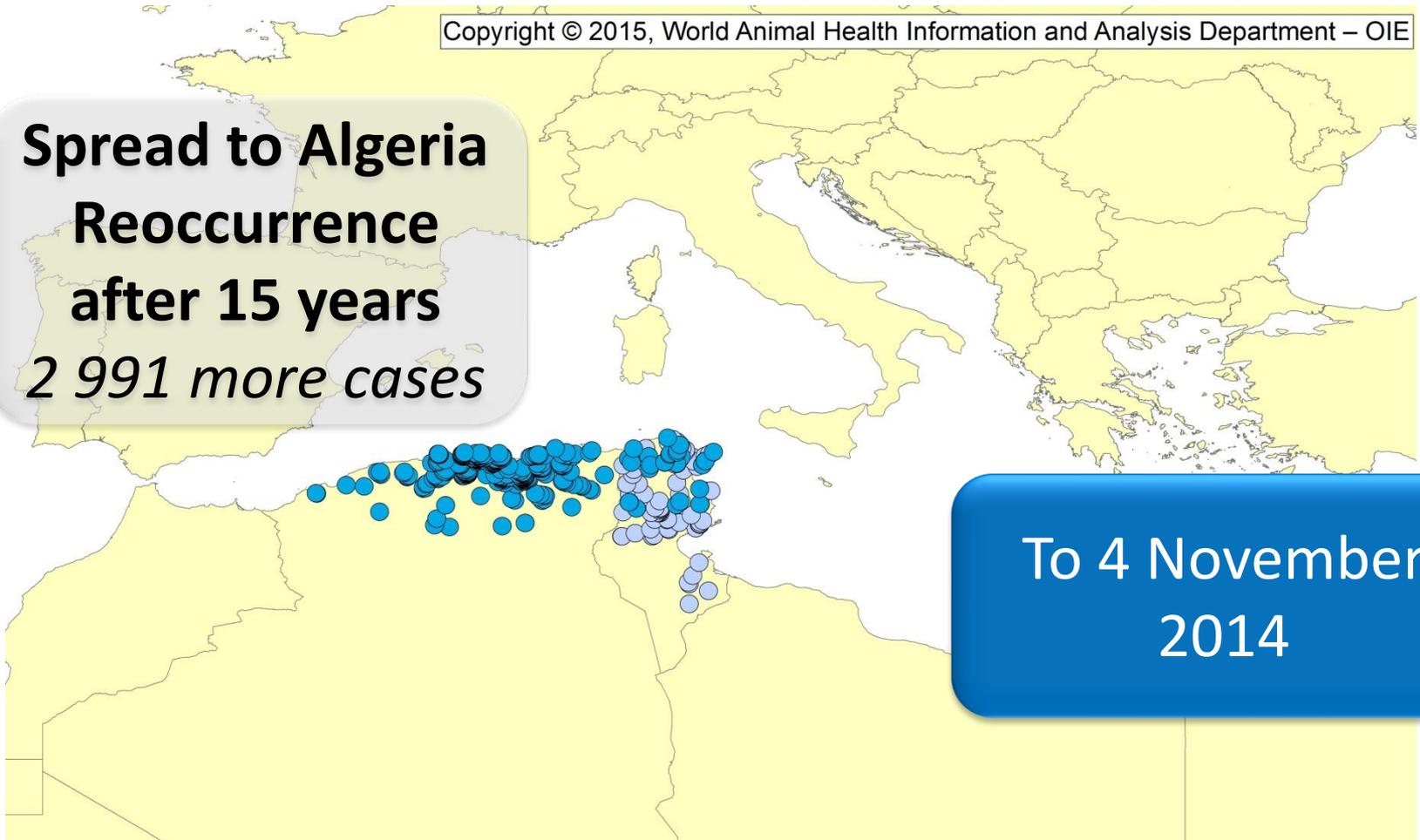


Cumulative FMD outbreaks in North Africa

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Spread to Algeria
Reoccurrence
after 15 years
2 991 more cases

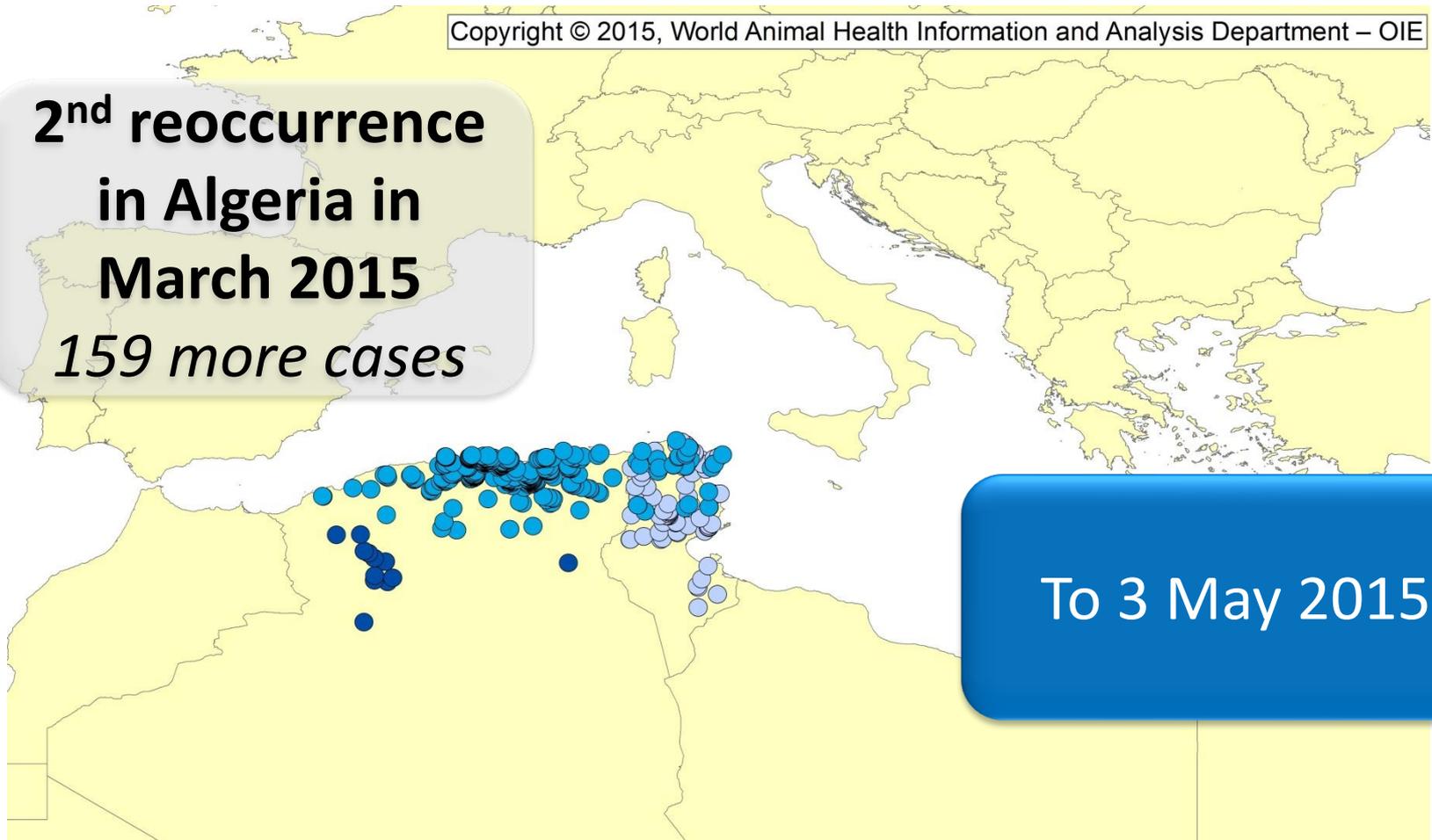
To 4 November
2014



Cumulative FMD outbreaks in North Africa

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**2nd reoccurrence
in Algeria in
March 2015**
159 more cases



Risk of incursion into Europe?



- *According to Resolution No. 18 (83rd General Session of World Assembly, May 2015) Morocco has an endorsed official control programme for FMD, according to the provisions of Chapter 8.7. of the Terrestrial Code, Edition 2014*
- *The endorsement of the “OIE official control programme for FMD” for Tunisia, as recognised by the OIE World Assembly of Delegates in terms of Resolution No. 15 in May 2012, was withdrawn with effect from 19 September 2014.*

HPAI WORLDWIDE



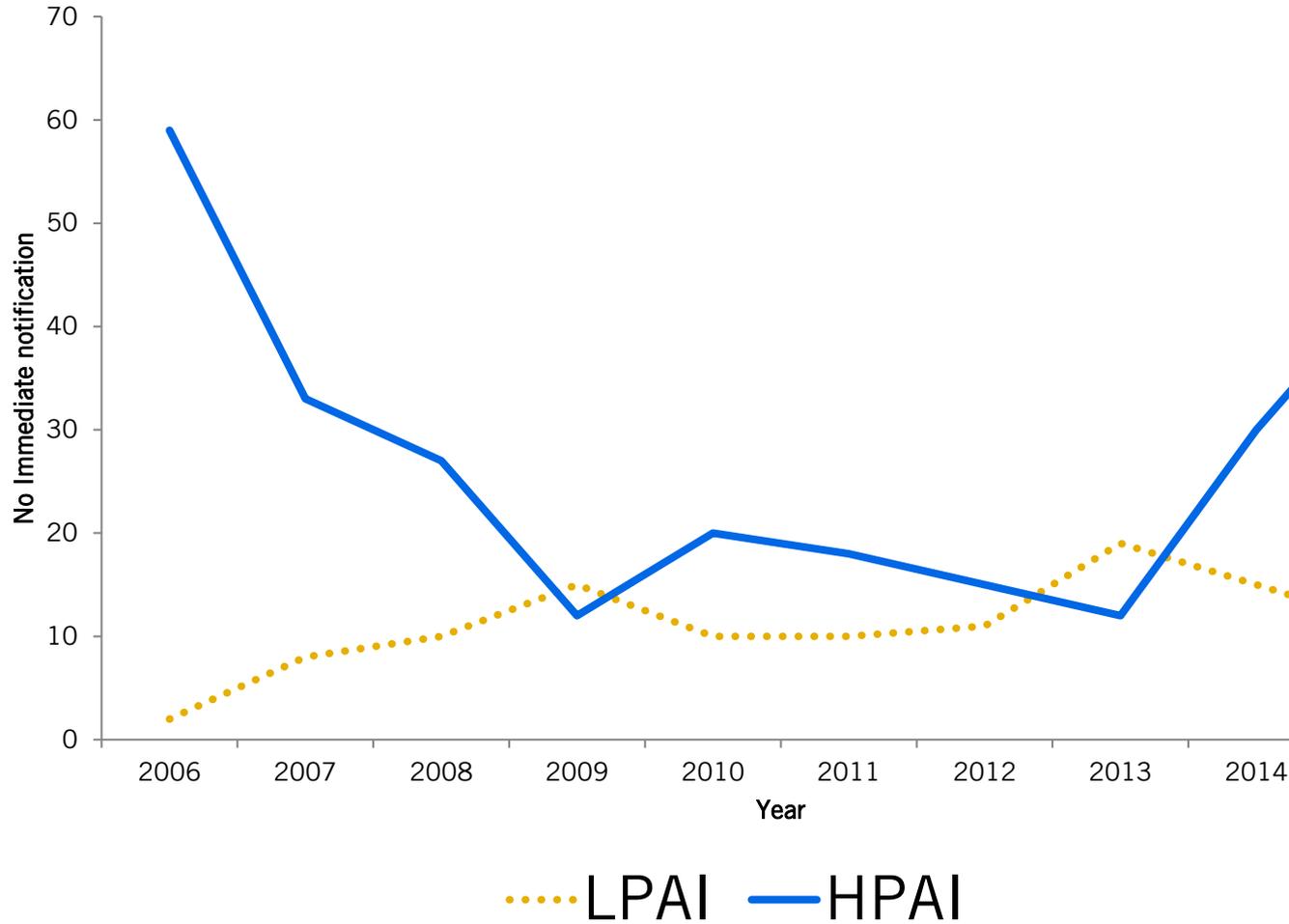
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N° immediate notifications at global level

(as of 21 September 2015)

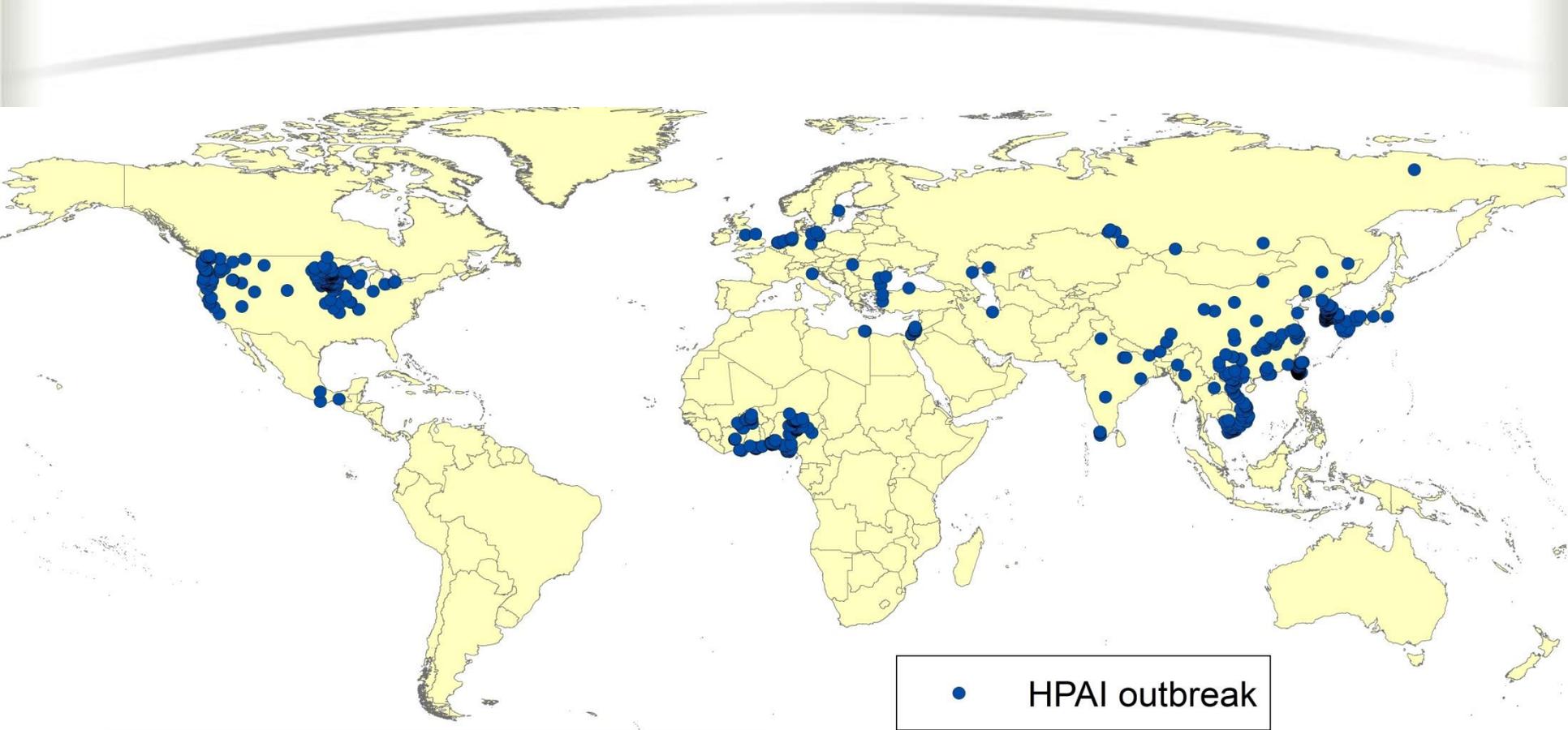


**2015
HPAI
45 events**

**2015
LPAI
11 events**

HPAI outbreaks reported through INs and FURs - World

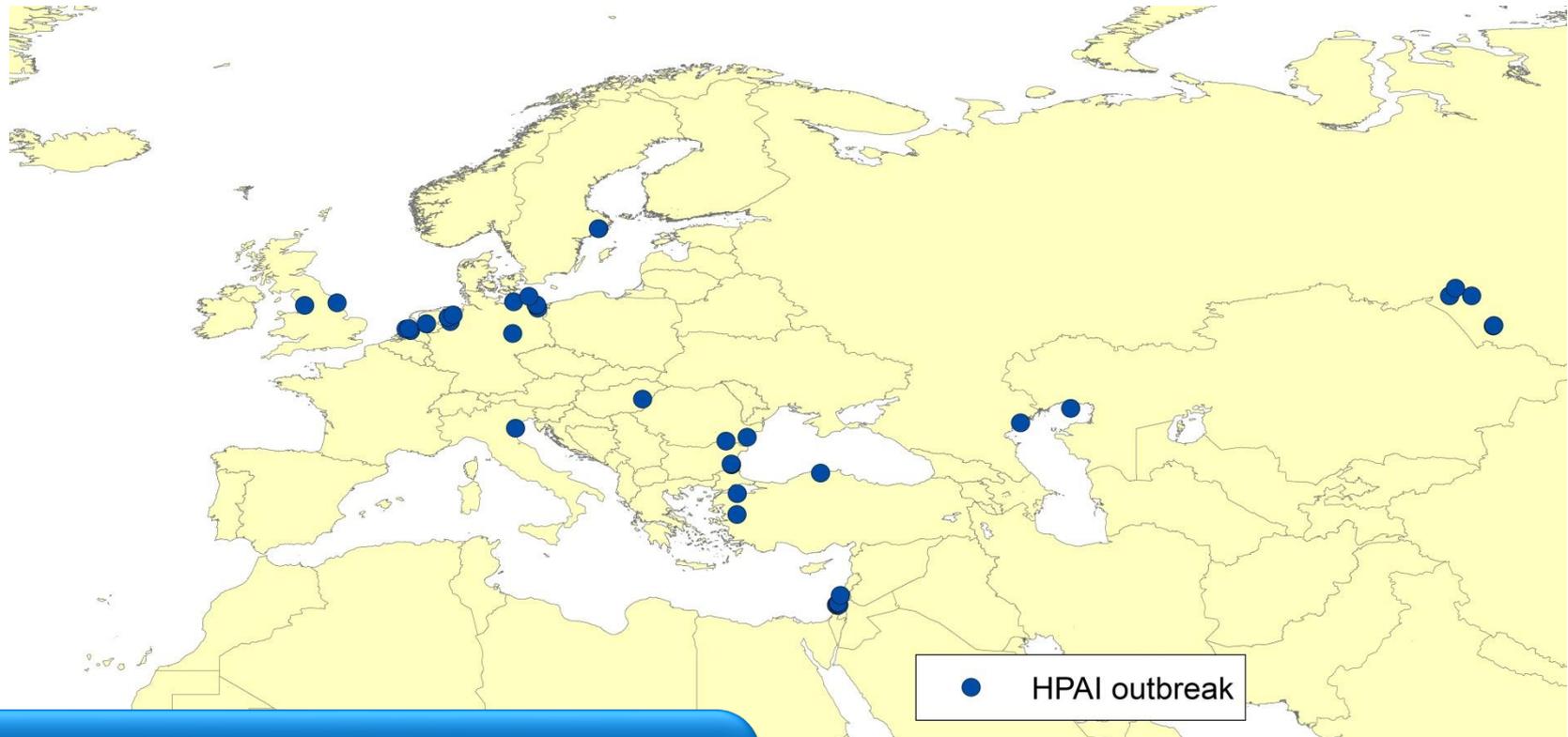
(between 1 January 2014 and 21 September 2015)



1774 outbreaks in 36
countries

HPAI outbreaks reported through INs and FURs - Europe

(between 1 January 2014 and 21 September 2015)



45 outbreaks in 12
countries

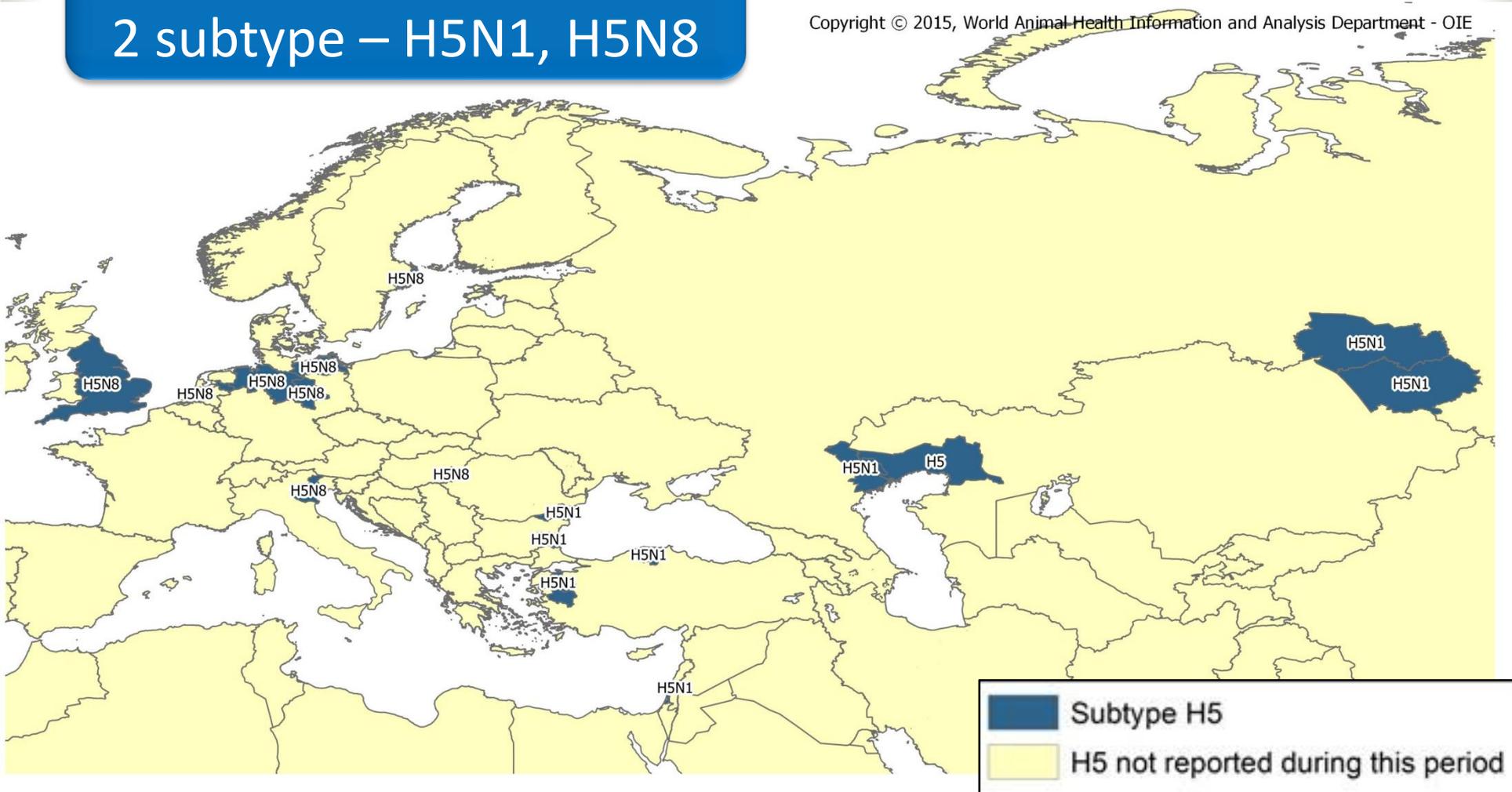
AI subtype H5 distribution

1 January 2014 – 21 September 2015



12 countries
2 subtype – H5N1, H5N8

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Subtype H5
H5 not reported during this period

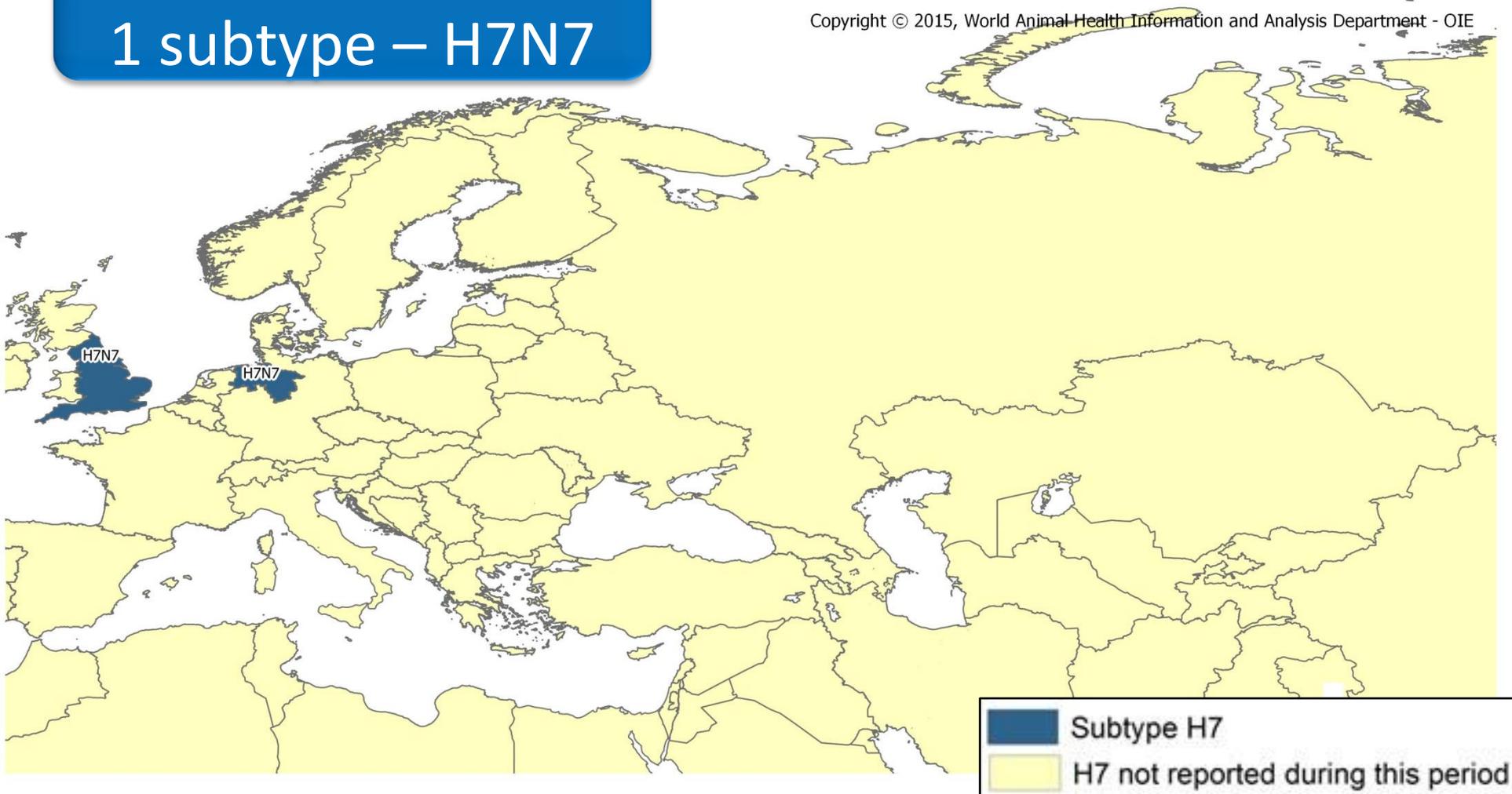
AI subtype H7 distribution

1 January 2014 – 21 September 2015



2 countries
1 subtype – H7N7

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Dynamic of infection with AI viruses

Criteria influencing the dynamic of AI viruses?



- *Globally : Differences between **local and international levels in terms of spread and speed of the disease** (Final Report of the 83rd General Session, 24 - 29 May 2015)*
- *Globally : Differences according to **subtypes** (83rd General Session)*
- *Asia and Oceania : Differences according to **production types : backyard vs. farmed poultry in term of spread and duration of the event** (29th Conference of the OIE Regional Commission for Asia, the Far East and Oceania - 14 to 18 September 2015)*

Conclusions – HPAI



- Exceptional increase of HPAI events in the world in 2014/2015
- In Europe, 12 countries affected by AI viruses in 2014/2015
- WAHIS data provides useful information to better understand the dynamic of AI viruses at global level
- Need for high quality and timely information

Thank you for your attention!



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