

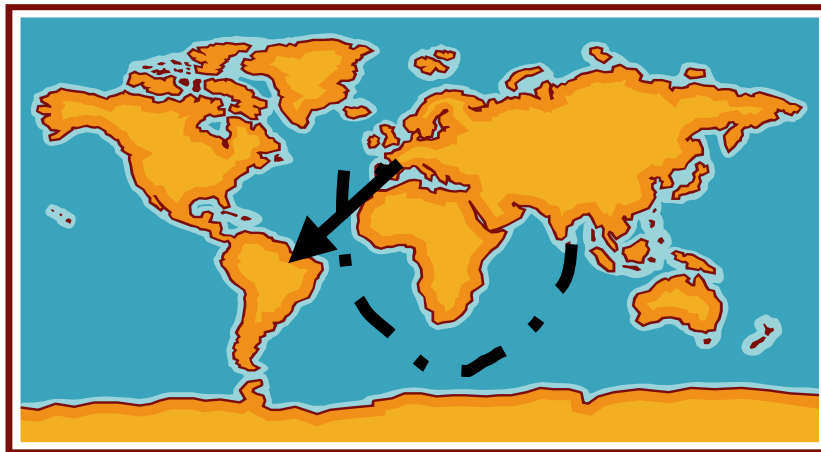
# World Animal Health Information System (WAHIS) and its updates

ExpoSanita',  
May 29, 2010 – Bologna (Italy)

Alessandro Ripani  
OIE – Animal Health Information Department

# OIE's origin and mandate

The OIE was created in **1924** following the incursion of rinderpest in 1920 in Europe



*to prevent animal diseases from spreading around the world*

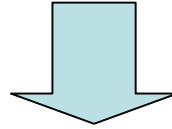
- **28** countries in 1924
- **176** countries in 2010

The **4th Strategic Plan 2006/2010** extended the OIE's global mandate to *“the improvement of animal health all over the world including zoonoses”*

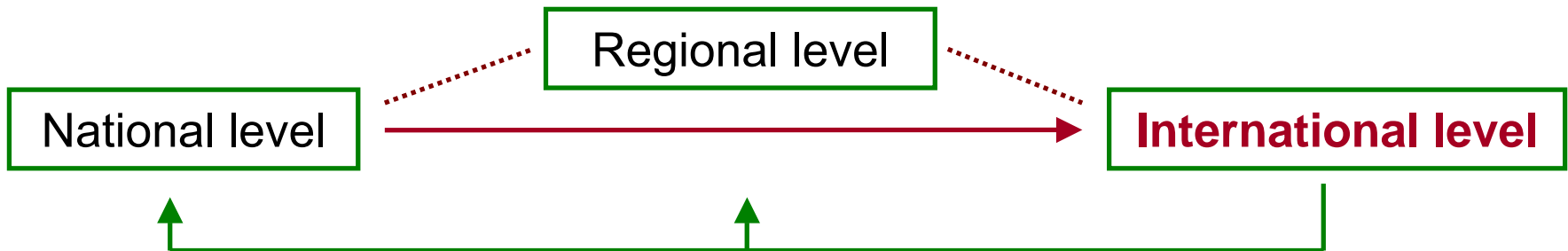
# Objectives of the OIE

1. To ensure transparency in the global **animal disease and zoonosis situation**
2. To collect, analyse and disseminate **scientific veterinary information**
3. To provide expertise and encourage international solidarity **in the control of animal diseases**
4. Within its mandate under the WTO SPS Agreement, to safeguard world trade by publishing **health standards** for international trade in animals and animal products
5. To improve the legal framework and resources of **national Veterinary Services**
6. To provide a better guarantee of the **safety of food of animal origin** and to promote **animal welfare** through a science-based approach

# Appropriate surveillance



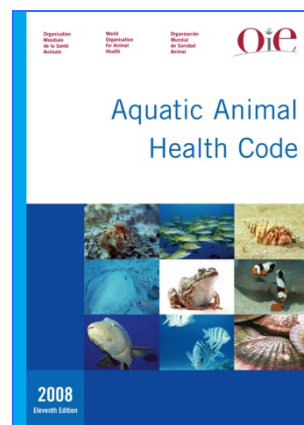
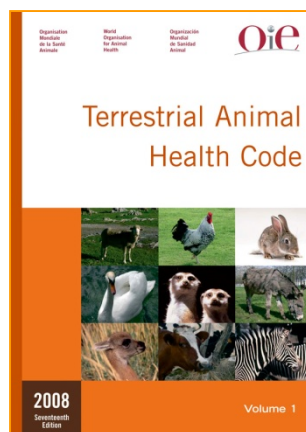
Surveillance system - at national, regional and international level - is a key tool to deal with emerging and re-emerging diseases



*Organised and co-ordinated flow of information*

# Obligation for notification

**By deciding to join the OIE, a Member agrees to fulfil its international commitment to notify to the OIE as laid out in the Chapter 1.1. of the OIE's Codes (“Notification and Epidemiological Information”)**

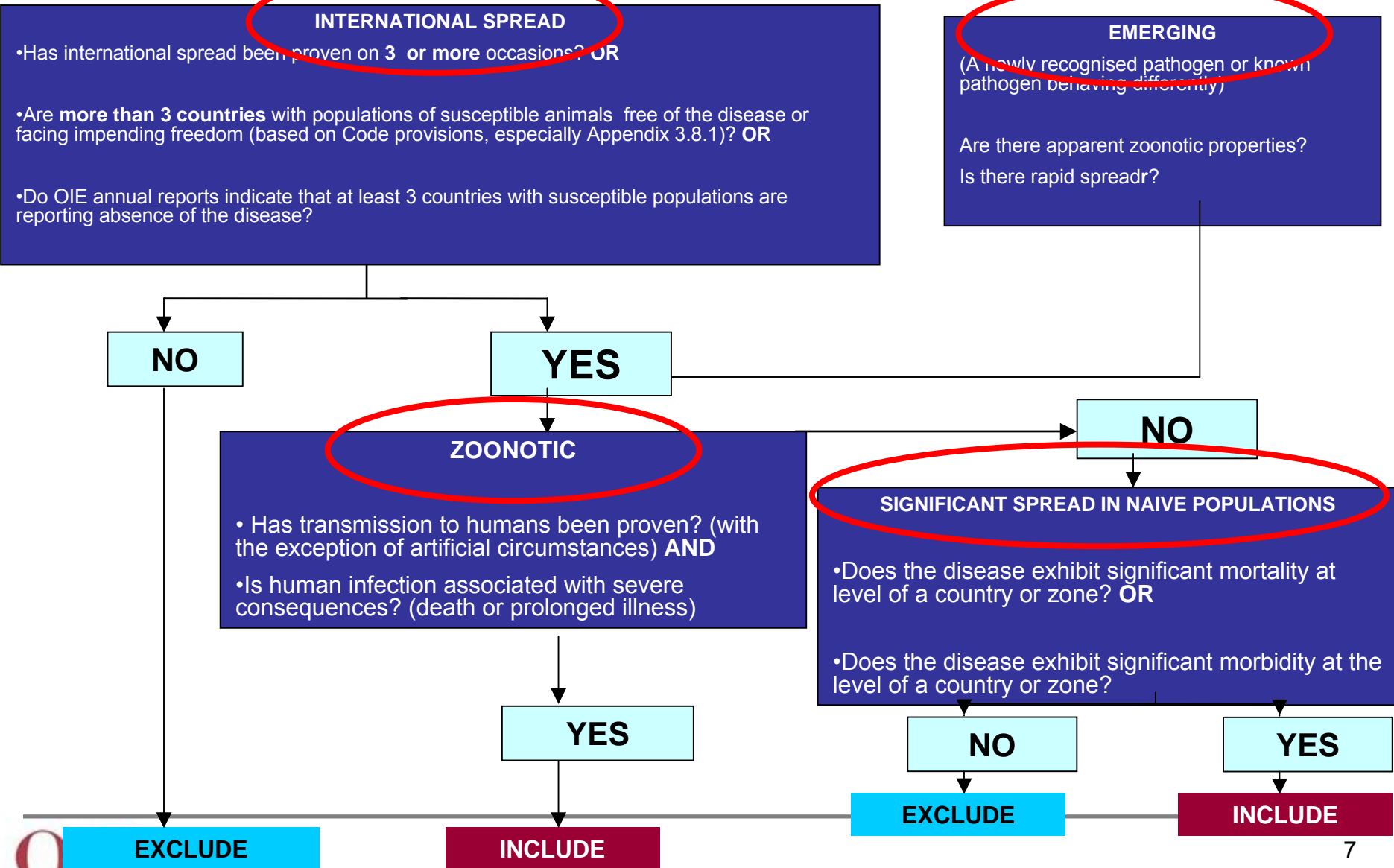


# When notify to OIE through the immediate notification

## Reasons:

- 1 The **first occurrence of a listed disease and/or infection** in a country or zone/compartiment
- 2 The **re-occurrence of a listed disease or infection** in a country or zone/ compartiment following a report declaring previous outbreak(s) eradicated
- 3 The **first occurrence of a new strain of a pathogen** of a listed disease in a country or zone/compartiment
- 4 A **sudden and unexpected increase in the distribution, incidence, morbidity or mortality** of a listed disease prevalent within country, a zone or a compartiment
- 5 Evidence of **change in the epidemiology** of a listed disease (e.g. host range, pathogenicity, strain of causative pathogen), in particular if there is a zoonotic impact
- 6 An **emerging disease** with significant morbidity/mortality or zoonotic potential

# Decision Tree used to determine the list



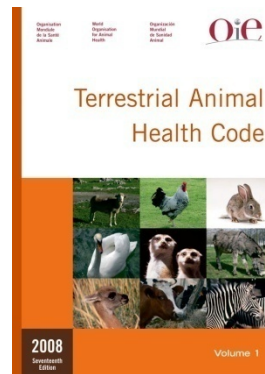
# OIE's list of diseases

## Article 1.2.3.

The following *diseases* are included in the OIE List.

1. The following *diseases* are included within the category of multiple species *diseases*:

- Anthrax
- Anjeszky's disease
- Bluetongue
- Brucellosis (*Brucella abortus*)
- Brucellosis (*Brucella melitensis*)
- Brucellosis (*Brucella suis*)
- Crimean Congo haemorrhagic fever
- Echinococcosis/hydatidosis
- Epizootic haemorrhagic disease
- Equine encephalomyelitis (Eastern)
- Foot and mouth disease
- Heartwater



**In 2009 : 93 diseases**

26 multi species, 14 cattle, 11 sheep/goat, 11 equine, 7 swine, 14 avian, 2 lagomorph, 6 bee, 2 others

## CHAPTER 1.2.3.

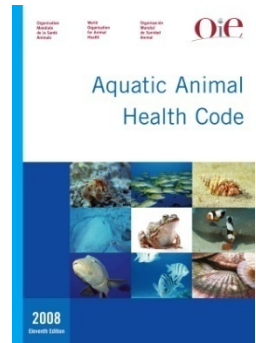
### DISEASES LISTED BY THE OIE

Preamble: The following *diseases* are listed by the OIE according to the criteria for listing an *aquatic animal disease* (see Article 1.2.2.1.) or criteria for listing an *emerging aquatic animal disease* (see Article 1.2.2.2.).

## Article 1.2.3.1.

The following *diseases* of fish are listed by the OIE:

- Epizootic haematopoietic necrosis
- Infectious haematopoietic necrosis
- Spring viraemia of carp
- Viral haemorrhagic septicaemia
- Infectious salmon anaemia
- Epizootic ulcerative syndrome
- Gyrodactylosis (*Gyrodactylus salaris*)
- Red sea bream iridoviral disease
- Koi herpesvirus disease.

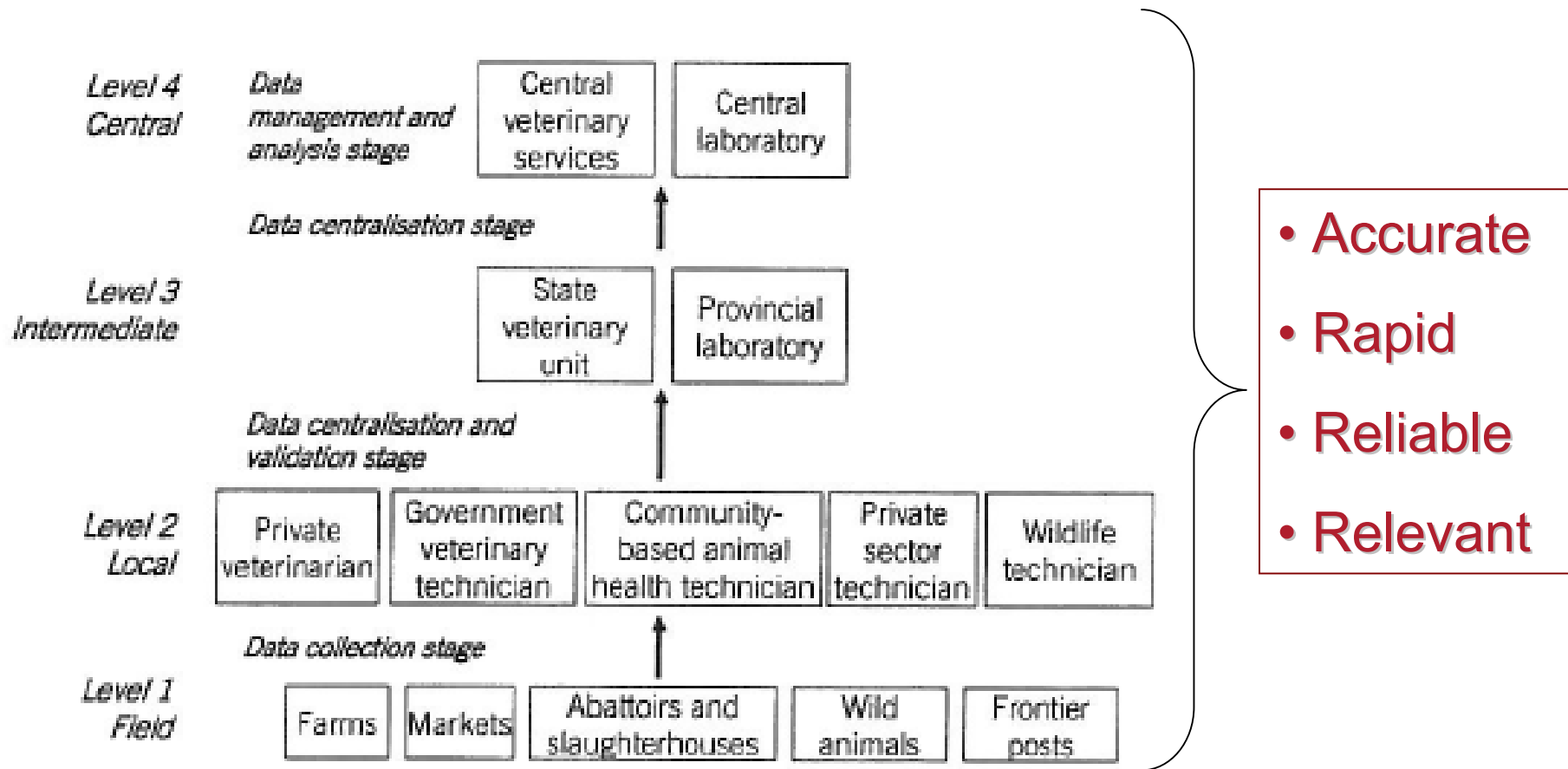


**In 2009 : 25 diseases**

9 fish, 7, molluscs, 7 crustaceans, 2 amphibians



# Role of Information

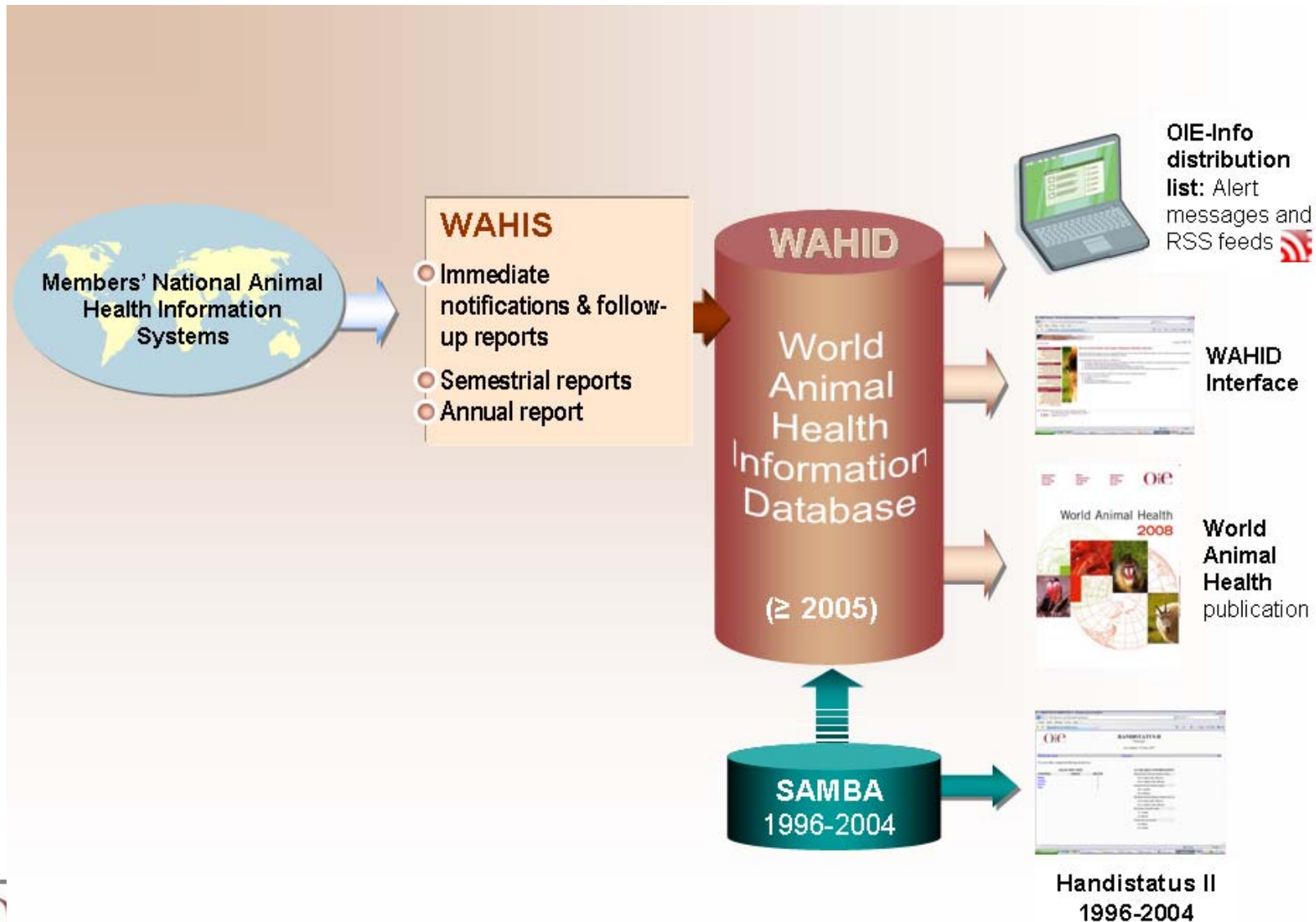


# OIE Information System WAHIS - WAHID



Promote transparency in  
and knowledge of  
animal disease situation worldwide  
(domestic and wild species)

# WAHIS: OIE's World Animal Health Information System



# WAHIS: OIE's World Animal Health Information System

## WAHIS online notification application:



- Provides countries with a **simpler** and **quicker** method of sending sanitary information => compliance with international standards
- Allows countries to benefit from the new capabilities put in place to produce essential and useful information with the **minimum of errors** and **delays** (near real time information)
- Countries' data benefit from the system **reliability** and **safety**.

# WAHIS: OIE's World Animal Health Information System

*To inform the other Members on an exceptional epidemiological event*



**OIE's early warning system**

International alert messages



**Rapid response**

*To be transparent on the regular animal health situation*



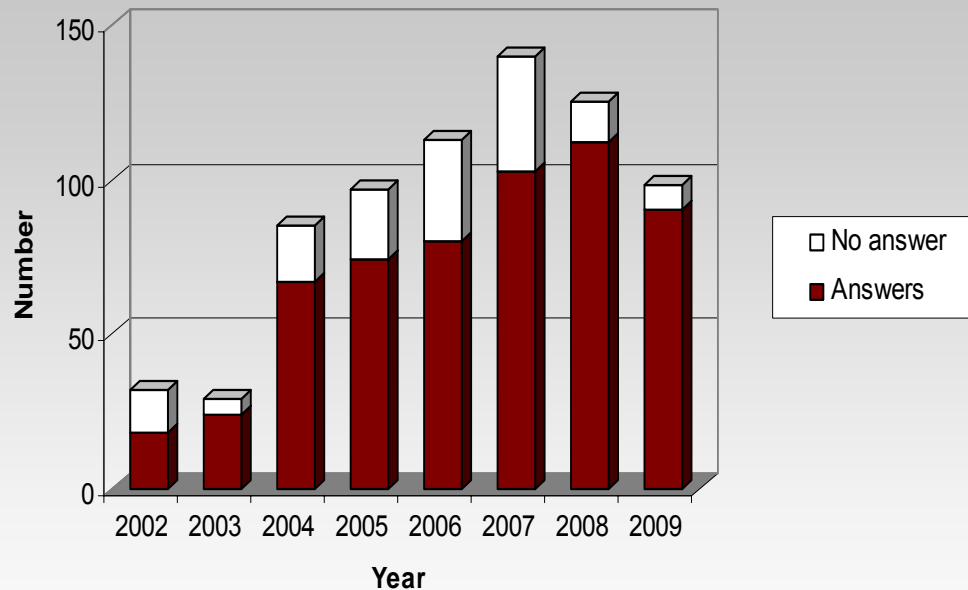
**OIE's monitoring system**

**To monitor OIE Listed diseases (presence or absence) over time**

# OIE's Tracking Activities

- Active search unofficial sources
- Verify with OIE Delegates
- Support and enrich OIE's official information system

Number of enquiries related to non-official information between 2002 & 2009



Source:  
World Organisation for Animal Health (OIE)  
Animal Health Information Department

  
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# WAHIS: OIE's World Animal Health Information System

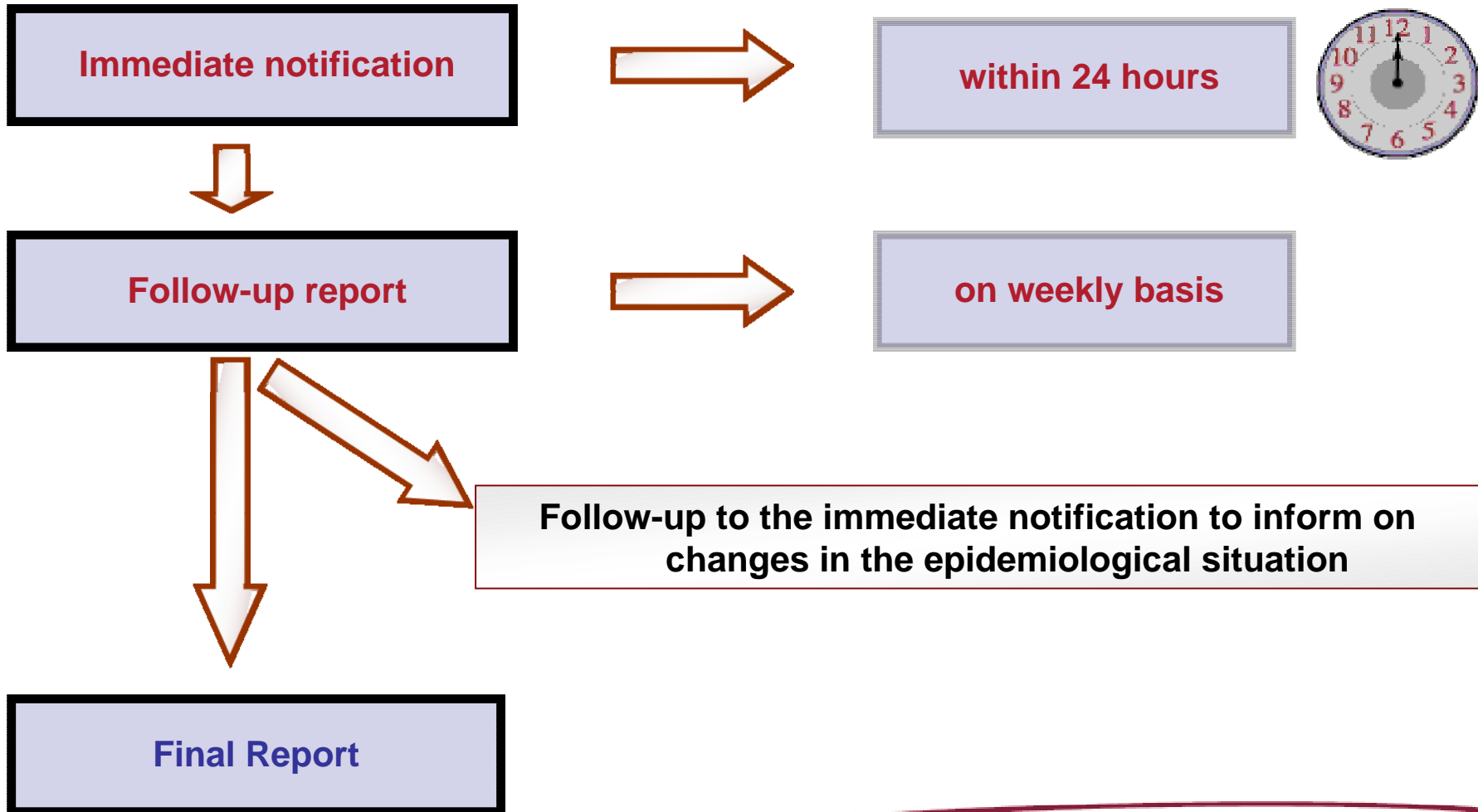
## TYPES OF REPORTS

- ① **Immediate notification** of disease, infection or unusual epidemiological events
- ② **Weekly reports:** Follow-ups to the immediate notification
- ③ **Final report :**
  - if the outbreaks have ended
  - if the situation becomes endemic



- ④ **Six-monthly report**
- ⑤ **Annual report**

# OIE's early warning system





# Immediate notification and follow - ups

**WAHID Interface** Animal Health Information  
 Information zoonitaire  
 Informació Zoonitaria

OIE Home Page Language: English

**Event summary: Rabies, Italy**

**Country information**

- Exceptional epidemiological events
- Animal health situation
- Veterinarians and paraveterinarians
- Animal population
- Zoonoses in Humans
- Laboratory capability
- Vaccine production
- Vaccination
- OIE reporting history
- Disease timelines
- Disease time series analysis

**Disease information**

**Disease control measures**

**Countries sanitary situation comparison**

**Data between 1996 and 2004**

**WAHID home page**

**Event summary: Rabies, Italy**

Start of event	10/10/2008
Confirmation	17/10/2008
Report date	21/10/2008
Submission date	21/10/2008
Reason	Reoccurrence
This event pertains to	a defined zone within the country
Number of outbreaks	218
Date resolved	endemic disease 09/04/2010
Epidemiological comments	This is the first case of sylvatic rabies in Italy after 13 years and the infection may have been introduced in Italy from the East.

Click on map to zoom in.

Italy has submitted the following immediate notification and follow-up report (s) to OIE.

View	Report Date	Date submitted to OIE	Report Type
Full report	21/10/2008	21/10/2008	Immediate Notification
Full report	29/10/2008	29/10/2008	Follow-up Report 1
Full report	05/12/2008	05/12/2008	Follow-up Report 2
Full report	09/01/2009	09/01/2009	Follow-up Report 3
Full report	15/01/2009	15/01/2009	Follow-up Report 4

Terminé Internet

# OIE's monitoring system

## Six-monthly Report

on the **absence *or* presence** of listed diseases

### Part 1: Qualitative information



disease **occurrence**,



**control, prophylaxis and prevention measures**,



**indication of the type of report to use** to notify diseases or infections/infestations present in the country (=> part 2)

# OIE's monitoring system

## Six-monthly Report

### Part 2: Quantitative information

**Template 1:** By lowest level Administrative Division and by Month

**Template 2:** For the whole Country and by Month

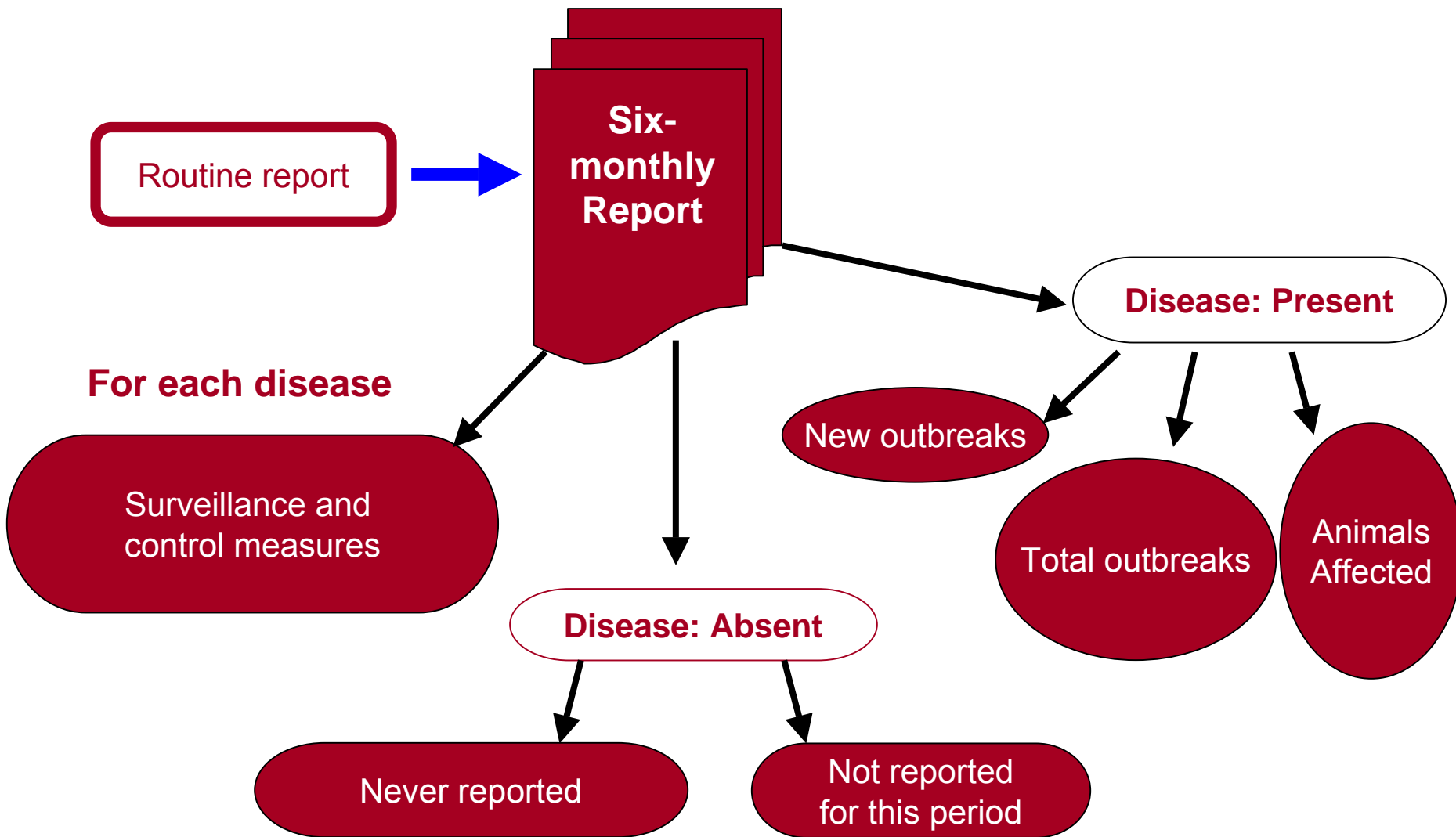
**Template 3:** By lowest level Administrative Division for the six months period

**Template 4:** For the whole Country for the six months period

*recommended  
by the OIE*



# Six-monthly Report - summary



# OIE's monitoring system

## Annual report

- Information on **non OIE-listed diseases**
- Information on **Vet. Services' staff**
- **National Reference Laboratories**
- **Livestock census** (by lowest level administrative division, etc.)
- **Zoonoses** (human cases)
- Production of **vaccines**

# OIE's monitoring system

WAHID Interface - OIE World Animal Health Information Database - Microsoft Internet Explorer

Fichier Edition Affichage Favoris Outils ?

Précédente Recherche Favoris

Adresse http://www.oie.int/wahis/public.php

OIE Home Page Language: English

Country information  
Disease information  
Immediate notifications and Follow-ups  
Weekly Disease Information  
Report archive  
Disease outbreak maps  
Disease distribution maps  
Detailed country (ies) disease incidence  
Lists of countries by sanitary situation  
Disease timelines  
General Disease Information

Disease control measures  
Countries sanitary situation comparison  
Data between 1996 and 2004  
WAHID home page

Choose by: Single country Region: Entire world Country: Italy

Choose Disease:  Terrestrial: West Nile Fever  
 Aquatic: --- Aquatic ---

Choose time period: From: Jan 2009 To: Dec 2010 OK

## Detailed country (ies) disease incidence

Number of new outbreaks reported. Click on a figure to show full details.

### Italy

location	2009												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Administrative divisions													
EMILIA-ROMAGNA	0	0	0	0			4	20	11	13	3	...	
FRIULI-VENEZIA GIULIA										1	0	0	...
LOMBARDIA	0	0	0	0			1	2	4	4	1	3	...
LAZIO									1	1	2	0	...
TOSCANA									1	2	1	1	...
VENETO	6	1	0	0					2	16	8	10	...
Totals	6	1					1	7	29	34	25	16	

Legend  
0 Disease absent  
+.. Disease present but without quantitative data

http://www.oie.int - WAHID Interface - OIE World Animal H...

## Disease outbreak summary, Italy

West Nile Fever, VENETO, Dec 2009

New outbreaks: 10  
Total outbreaks: 36  
Serotype(s):

### Affected species

Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
Equidae	27	12	0	0	0

Close window

# WAHIS – WAHID improvements in 2009 -2010

- **2009:** distinction between disease occurrence codes between domestic and wild species
  - *Impact in WAHID*
- **2010:** the system will offer for wild species category a short list of known susceptible species using a drop-down menu

# From 2005 wild species recordable in WAHIS

**WAHIS Interface** Animal Health Information  
Information zoonitaire  
Información Zoonitaria

OIE Home Page Language: English

Choose Disease:  Terrestrial: Highly path. avian influenza  
 Aquatic: --- Aquatic ---

**Summary of Immediate notifications and Follow-ups - 2005**  
**Highly pathogenic avian influenza**

Year: 2005

Country name	Status	Number of outbreaks	Event summary	Full report	Animals affected					
					Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
Croatia	Resolved 27/10/2006	9	Summary	Full report	Wild species	2044	16	30	0	0
					Animals	2044	16	30	0	0
Hong Kong (P.R. China)	Resolved 17/01/2007	16	Summary	Full report	Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered
					Wild species	2	2	2	0	0
Kazakhstan	Resolved	1	Summary	Full report	Animals	2	2	2	0	0
					Species	Susceptible	Cases	Deaths	Destroyed	Slaughtered

## Wildlife in WAHIS

2005

2007

2008

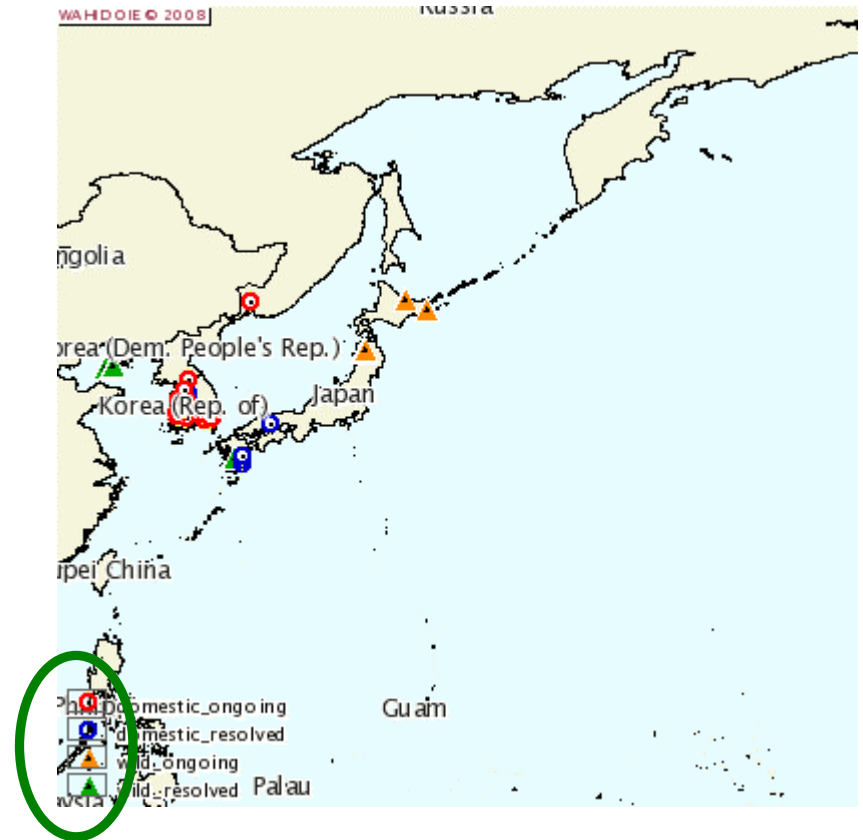
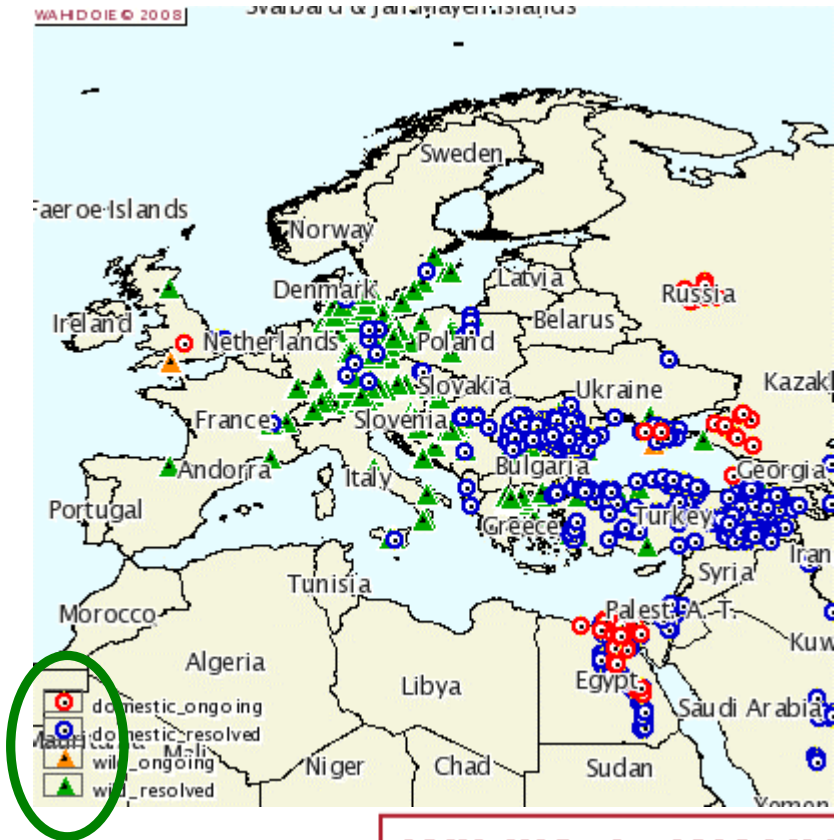
2009

2010



# 2007 - better graphical differentiation in WAHID

Outbreaks differentiation between domestic and wild species (e.g. HPAI)



**Wildlife in WAHIS**



# WAHID interface – 2009 - examples

Fichier Édition Affichage Historique Marque-pages Outils ?

http://www.oie.int/wahis/public.php?page=country\_status&year=2009

Les plus visités Débuter avec Firefox À la une Customize Links Free Hotmail Windows Media Windows

Country information  
 Exceptional epidemiological events  
 Animal health situation  
 Veterinarians and paraveterinarians  
 Animal population  
 Zoonoses in Humans  
 Laboratory capability  
 Vaccine production  
 Vaccination  
 OIE reporting history  
 Disease timelines  
 Disease time series analysis

Choose by: Single country Region: Entire world Country: France

## Animal health situation

This page lists what diseases have been reported as present, absent or never reported for the selected country. It also provides the option to show diseases for which no information has been provided in a selected calendar year.

Year: 2009

**France**

**NOTE:** This information is based only on a single six-monthly period: **January - June**


### Diseases present in the Country

Disease	Domestic		Wild		Notes
	Notifiable	Status	Notifiable	Status	
American foulbrood of honey bees	✓	Disease limited to one or more zones		Not Applicable	
Anthrax	✓	Disease limited to one or more zones	✗	No information	
Aujeszky's disease	✓	Not reported for this Period (since 200403)	✓	Disease limited to one or more zones	
Bluetongue	✓	Clinical Disease	✗	No information	
Bovine spongiform encephalopathy	✓	Disease limited to one or more zones	✗	No information	
Bovine tuberculosis	✓	Disease limited to one or more zones	✓	Disease limited to one or more zones	
Brucellosis (Brucella suis)	✓	Disease limited to one or more zones	✗	No information	
Contagious equine metritis	✓	Disease limited to one or more zones	✗	No information	
Echinococcosis/hydatidosis	✗	Disease limited to one or more zones	✗	No information	

**Current notifiable diseases - Key**

The following table lists officially notifiable disease in each country.

✓ Notifiable ✗ No



**Wildlife in WAHIS**

2005

2007

2008

2009

2010

# WAHID interface – 2009 - examples

Fichier Édition Affichage Historique Marque-pages Outils ?

http://www.oie.int/wahis/public.php?page=country\_timelines&public\_country\_code=ISR&disease\_id=17&disease\_type=Terrestrial&selected\_analysis=1&

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**WAHID Interface** Animal Health Information  
Information zoosanitaire  
Información Zoonosanitaria

OIE Home Page Language: English

- Country information
- Exceptional epidemiological events
- Animal health situation
- Veterinarians and paraveterinarians
- Animal population
- Zoonoses in Humans
- Laboratory capability
- Vaccine production
- Vaccination
- OIE reporting history
- Disease timelines
- Disease time series analysis

Choose by: Single country Region: Entire world Country: Israel

Choose Disease:  Terrestrial: Anthrax  Aquatic: --- Aquatic ---

Start year: 2005 End year: 2010 OK

## Disease timelines

### Key to colours

- There is no information available on this disease
- Never reported
- Disease not reported during this report period
- Disease suspected but not confirmed
- Confirmed infection but no clinical disease
- Confirmed clinical infection
- Confirmed infection but limited to certain zones

When different animal health statuses between domestic and wild animal population are provided the box is split in two:

- The upper part indicates the situation in domestic animals
- The lower part indicates the situation in wild animals

- Note
- NA Not Applicable

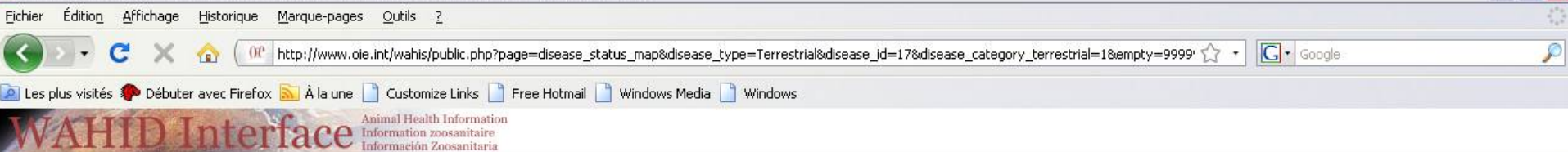
Israel ▲ Top

Disease:	Status for six month periods											
	2005		2006		2007		2008		2009		2010	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	
Anthrax												

Disease not reported during this report period



# WAHID interface – 2009 - examples



OIE Home Page Language: English

**Country information**

**Disease information**

Immediate notifications and Follow-ups

Weekly Disease Information

Report archive

Disease outbreak maps

Disease distribution maps

Detailed country (ies) disease incidence

Lists of countries by sanitary situation

Disease timelines

General Disease Information

**Disease control measures**

**Countries sanitary situation comparison**

**Data between 1996 and 2004**

**WAHID home page**

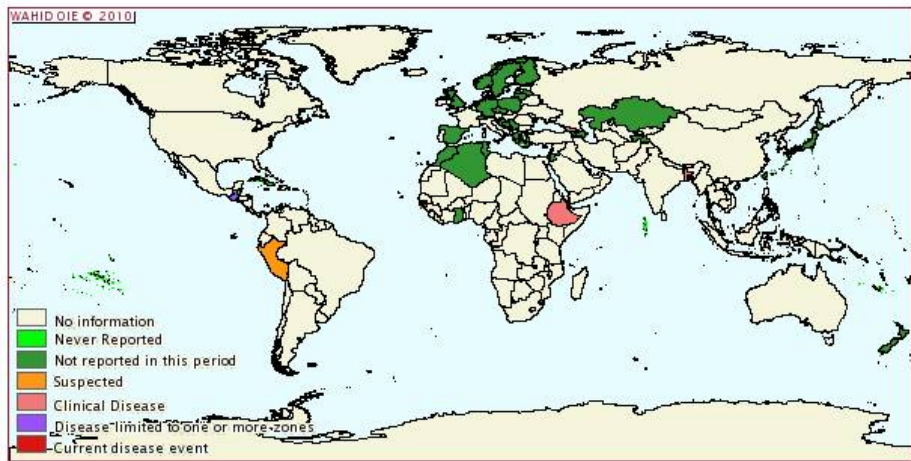
Choose Disease:  Terrestrial: Anthrax  Aquatic: --- Aquatic ---

Choose serotype: none

By six-month period  By Month Year: 2009 Period: Jan-Jun

Wild  
--- Category ---  
Domestic  
Wild  
Domestic and Wild

## Disease distribution maps



**Wildlife in WAHIS**



# Starting from 2010

The system will offer for wild species category a short list of known susceptible species using a drop-down menu



- **Family name**
- ***Latin name (scientific name)***
- **Common name**



The short list of known susceptible species will be related to:



- disease;
- disease regional distribution (e.g. CWD).

## Example:

Disease	Family name	Latin name	English Common Name	French Common Name	Spanish Common Name
West Nile fever	Anatidae	Anas platyrhynchos	Mallard	Canard colvert	Ánade Real

**Wildlife in WAHIS**

2005

2007

2008

2009

2010

# WAHIS - Starting from 2010

Quantitative information page for wild species

## Animals affected

Category\* Wild

Family Name\* select\_fam

Latin Name\* select\_lat\_name

Common Name select\_com\_name

Measuring units\* Animals

Susceptible\*

Cases\*

Deaths\*

Destroyed\*

Slaughtered\*

Add Family Name select\_fam > Add

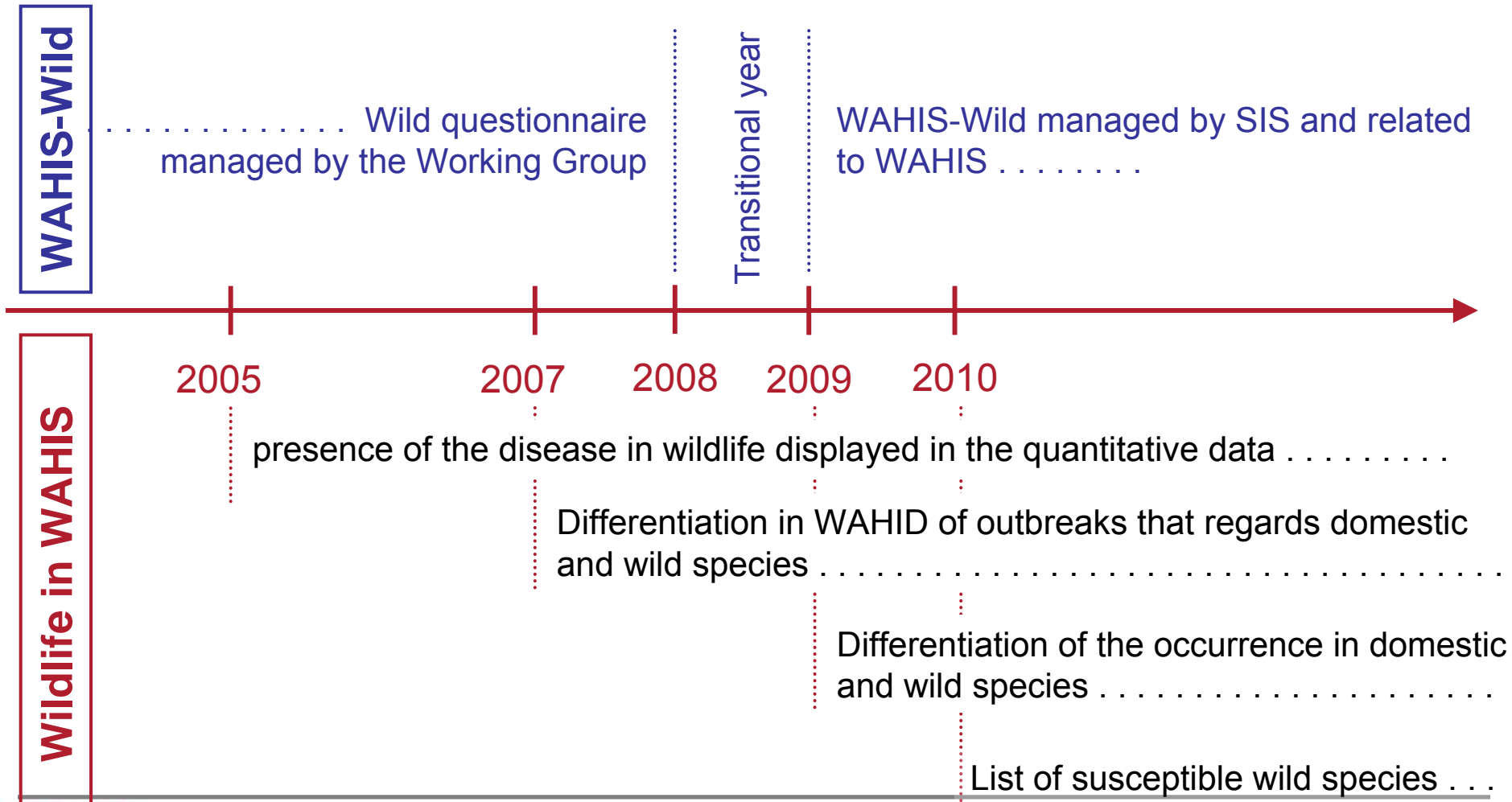
Add Latin Name

The system will allow the possibility **to add in a box of free text** another species (if it is not in the list).

Wildlife in WAHIS



# Mains steps of improvements the notification of diseases in wildlife



# Conclusion: Transparency & competence



The quality of the information provided to the OIE

- ➔ reflects the **degree of knowledge of the animal health situation** in the country
- ➔ is an important factor in the **evaluation of Vet. Services**

**Disease control** cannot be done properly without **accurate** and **reliable** epidemiologic data



# Conclusion: Transparency & honesty

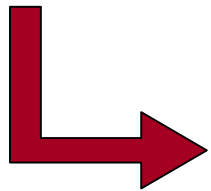
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Once a country's epidemiological data loses **credibility**, especially for trade, it is difficult and time-consuming to recover



# Conclusion: Transparency: key factors

- ▶ Independence of Veterinary Services
- ▶ Clear understanding of the beneficial effects of transparency
- ▶ Appropriate infrastructure (laboratories, systems of communication, ...)
- ▶ Sufficient human resources within Veterinary Services (staff, qualification, territorial meshing,..)
- ▶ Good knowledge of the animal health situation in the country and transparent sharing of this information
- ▶ Knowledge of the OIE's standards and notification procedures



**QUALITY OF VETERINARY SERVICES**

# Thank you for your attention



If you want to subscribe to the OIE-Info distribution list to receive OIE's Alerts, you can do it from:

[http://www.oie.int/eng/info/en\\_listserv.htm](http://www.oie.int/eng/info/en_listserv.htm)



**RSS Feeds are now available too**

