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CURRENT ANIMAL HEALTH SITUATION WORLDWIDE: ANALYSIS OF EVENTS AND TRENDS

OIE 89th General Session

23 May 2022



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1. Members' reporting through the OIE-WAHIS early warning system
2. Description of the global situation regarding three diseases and infections of major interest:
 - **Infection with ASF virus**
 - **Infection with HPAI viruses**
 - **Infection with SARS-CoV-2 in animals**
3. Members' reporting on diseases in aquatic animals
4. OIE-WAHIS state of play



CHAPTER 1

Members' reporting through the OIE-WAHIS early warning system

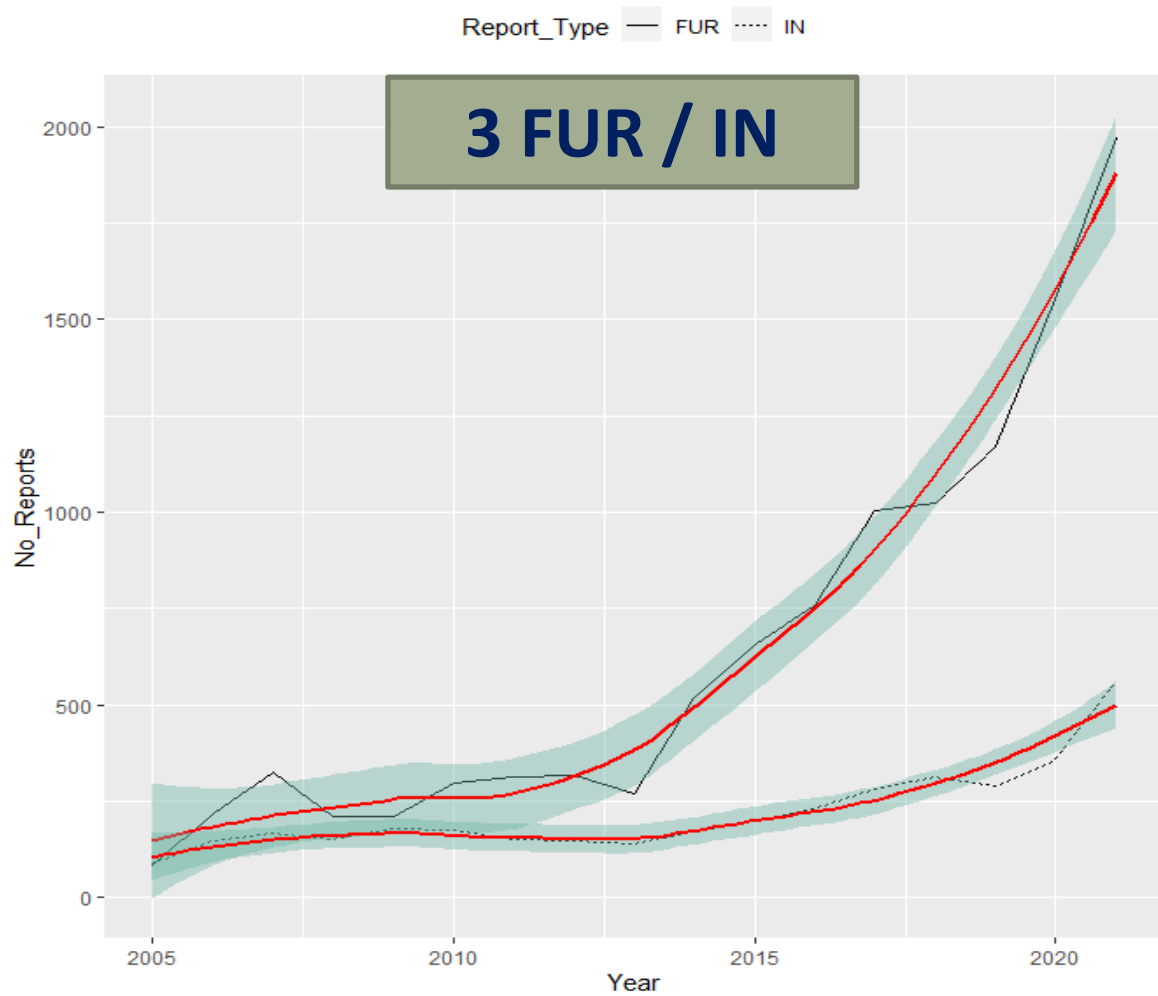


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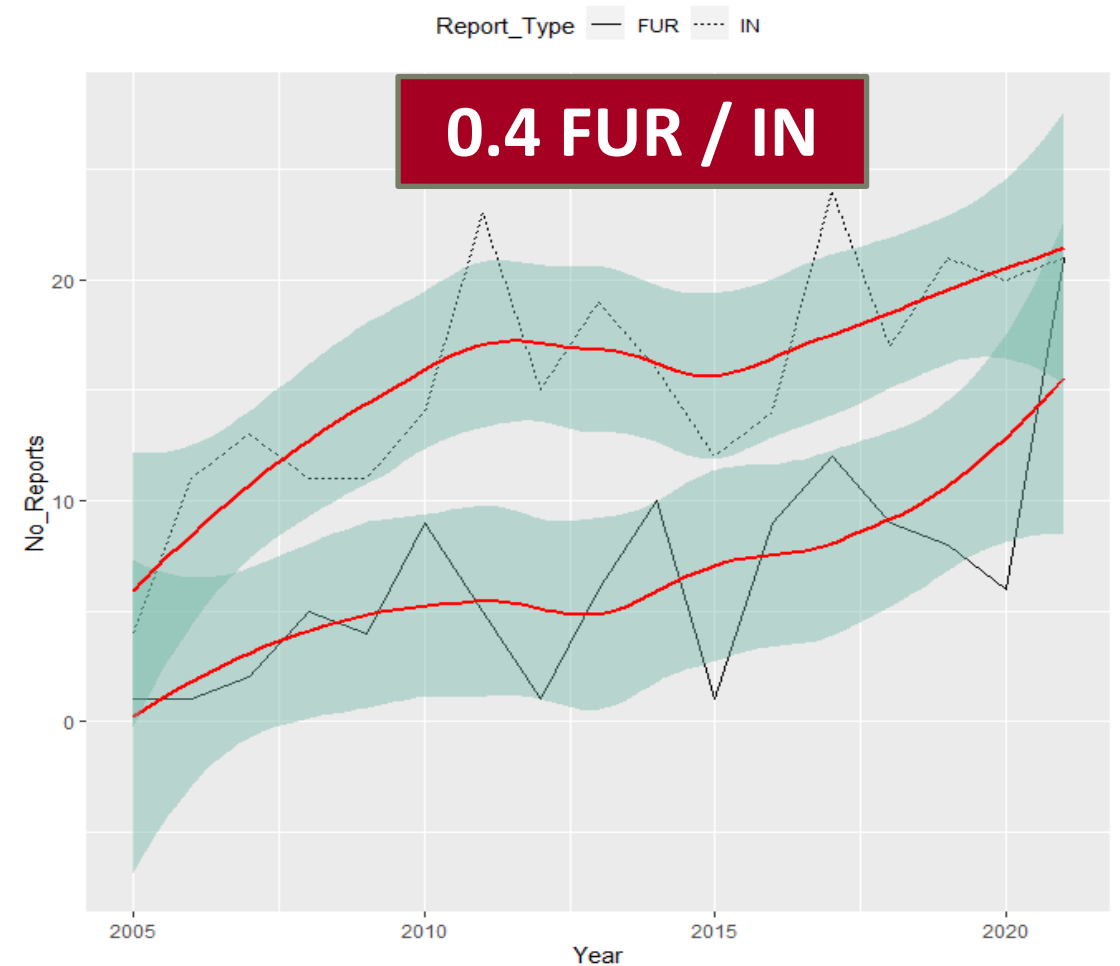
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Evolution in the number of Immediate notifications (INs) and Follow-up reports (FURs) reported during the period 2005–2021



3,798: Immediate notifications
11,185: Follow-up reports

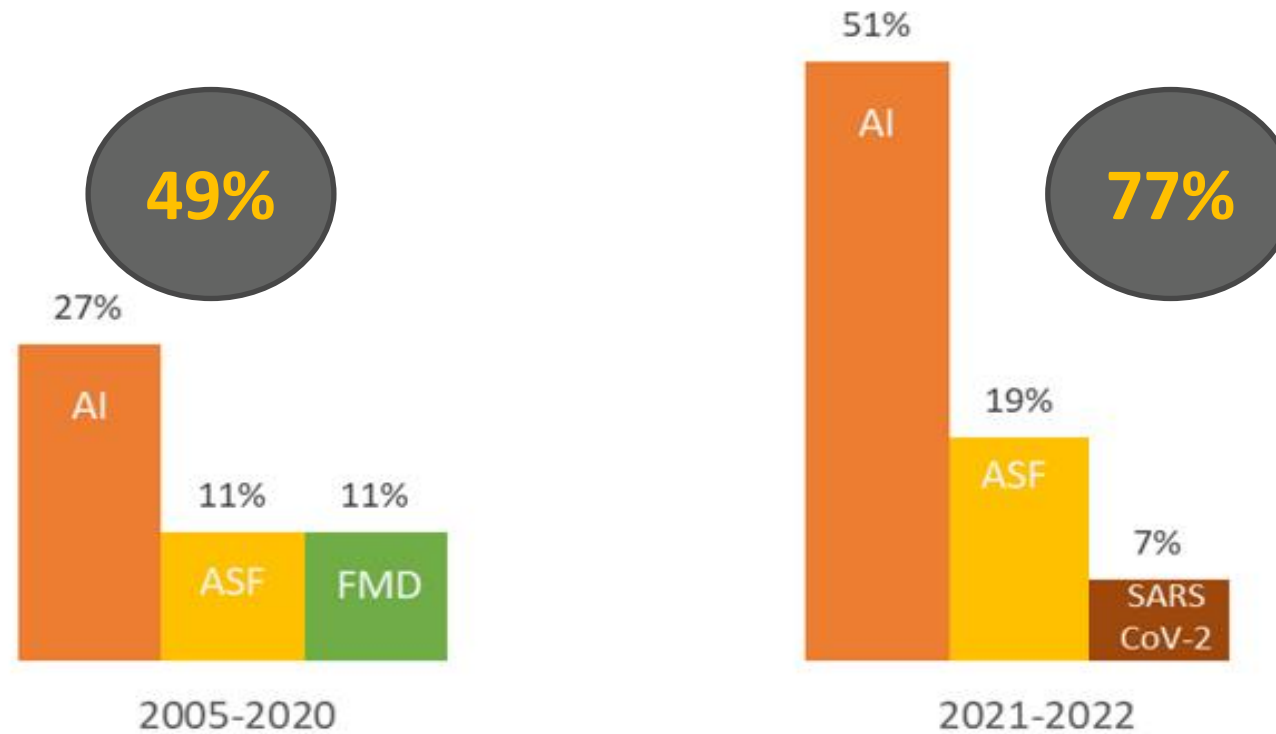


256: Immediate notifications
112: Follow-up reports

Recent reporting situation INs/FURs (until May 2022)

Terrestrial diseases

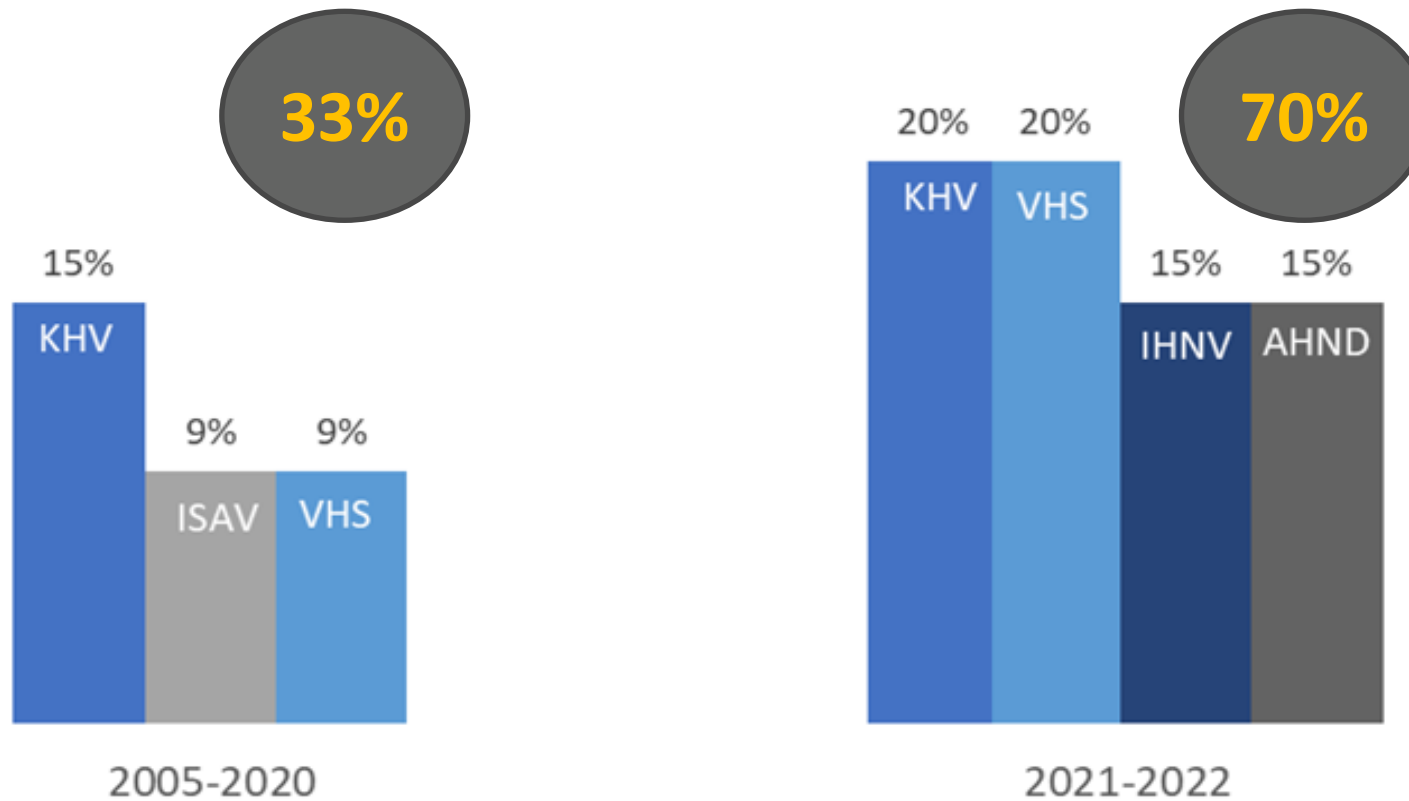
AI ASF FMD SARS-CoV-2



Recent reporting situation INs/FURs (until May 2022)

Aquatic diseases

■ KHV ■ ISAV ■ VHS ■ IHNV ■ AHND

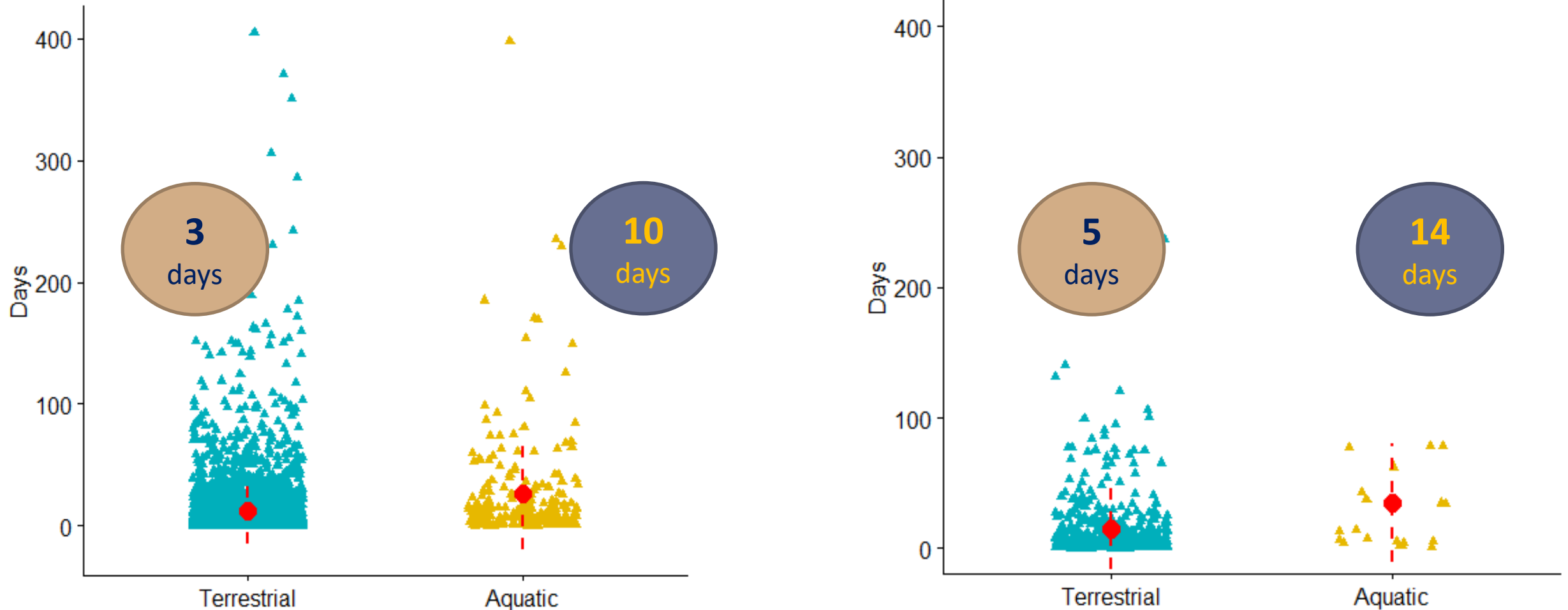


Distribution of submission time values (days) for terrestrial animal and aquatic animal diseases

Trends 2005-2020

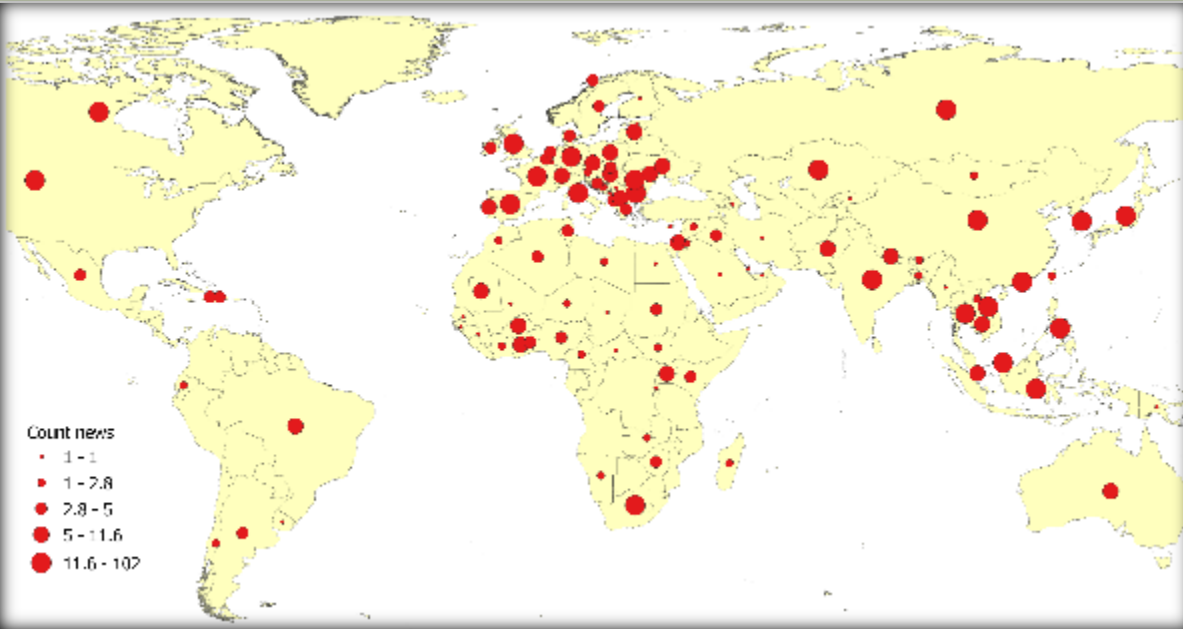
24h

Trends 2021-2022



The OIE encourage their Members continue to share information in a **timely** and **transparent** way. The OIE team has been always available to support Members if they have difficulties with the process.

OIE epidemic intelligence: update on active search activity



Constant communication between OIE and Members:

News tracked in the last six months (November 2021- April 2022) in **109** countries



OIE Reference
Laboratories



Global Early Warning System for transboundary animal diseases
(including zoonosis) (GLEWS+)

EIOS EPIDEMIC INTELLIGENCE
FROM OPEN SOURCES

Source

Intelliriver Source

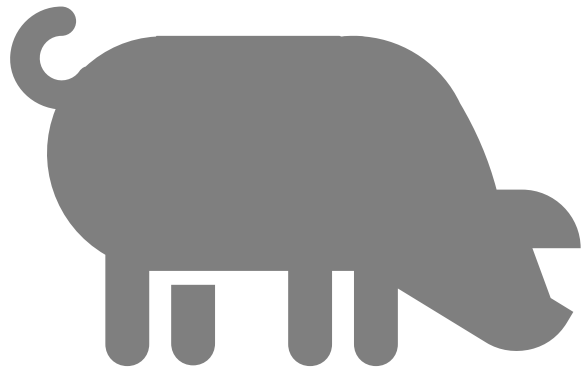
Daily screening of the web for all OIE-listed diseases from **10,000** news/year in 2017 to **120,000** news screened in 2021

Since 2018 the impact: **6 – 14%** due to Epidemic intelligence



CHAPTER 2

Description of the global situation regarding three diseases and infections of major interest



1. Infection with African swine fever virus

PPA distribution in 2005

20
countries



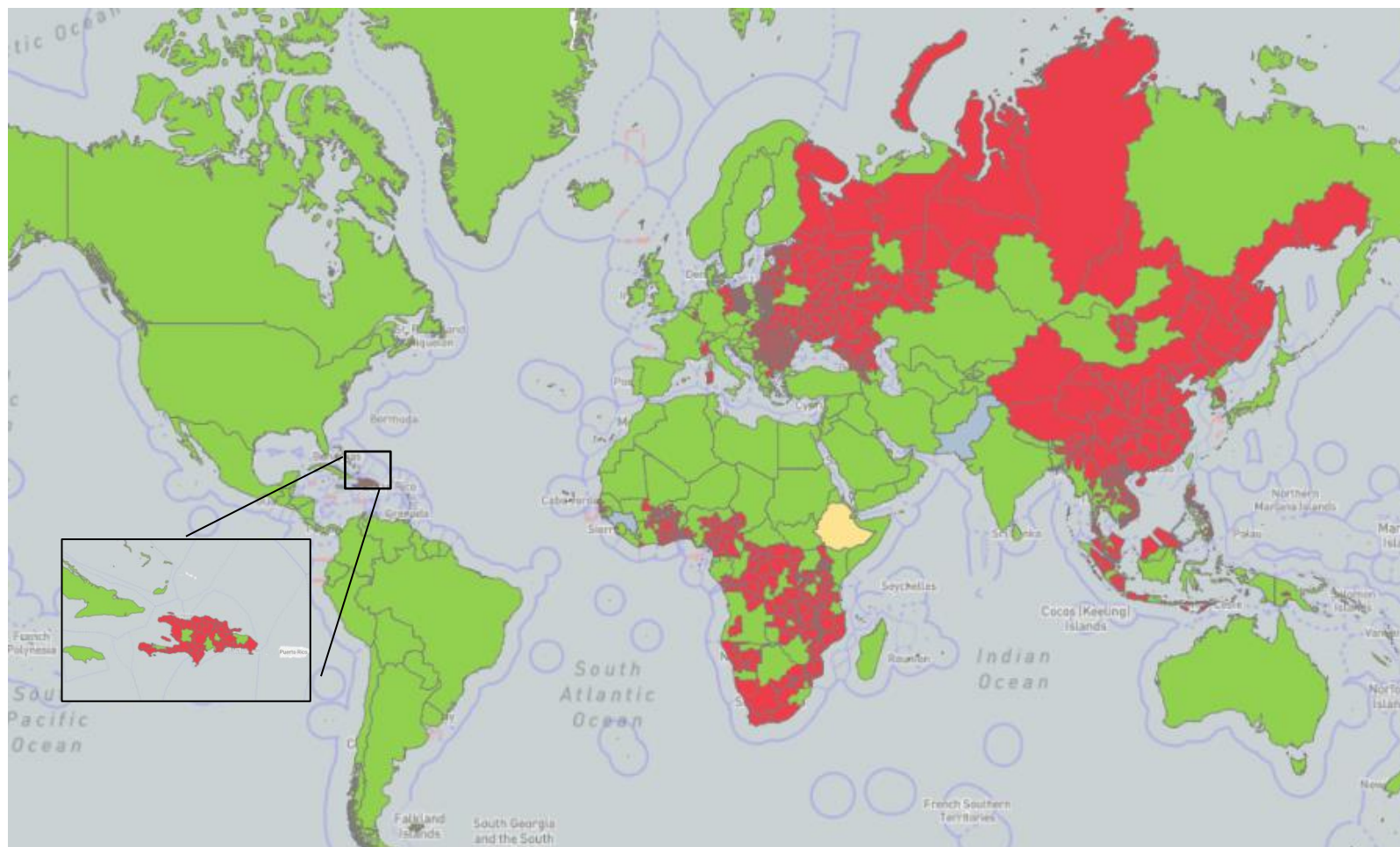
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Accumulative PPA distribution in 2005-2022

73
countries

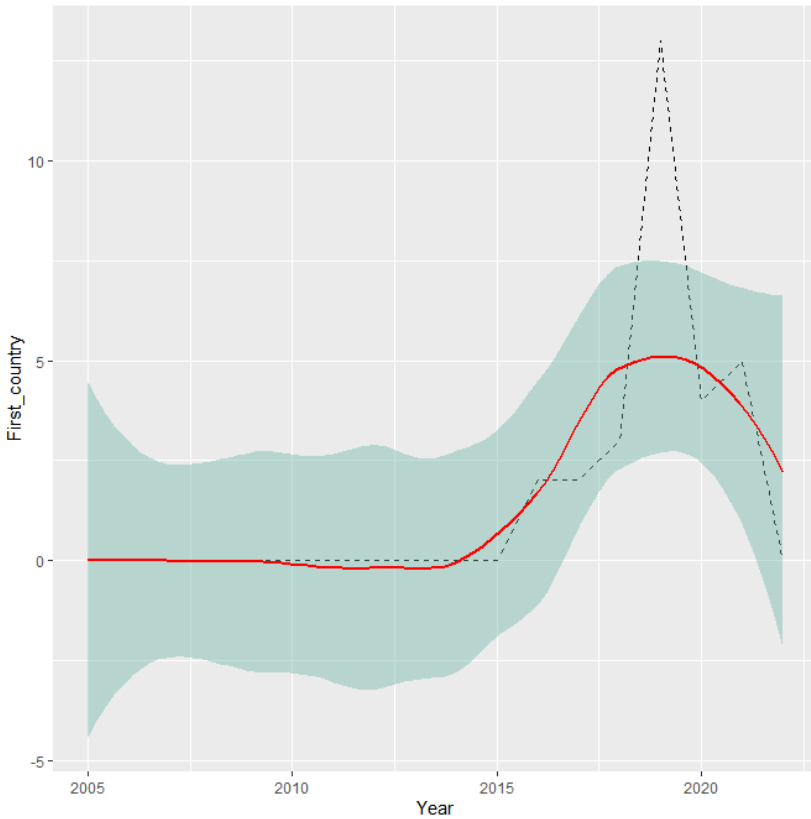


Since 2005 general deterioration

2nd most notified disease with 470 IN & **1st** disease with more 4,292FUR

Two countries have eradicated the disease: Belgium (March 2020) & Czech Republic (April 2018).

Trend in the number of OIE Members and non-Members reporting the first occurrence of ASF, during the period 2005–2022



First occurrence country
N=29



First occurrence zone
N=136



**Recurrence in a zone and
in a country N=304**

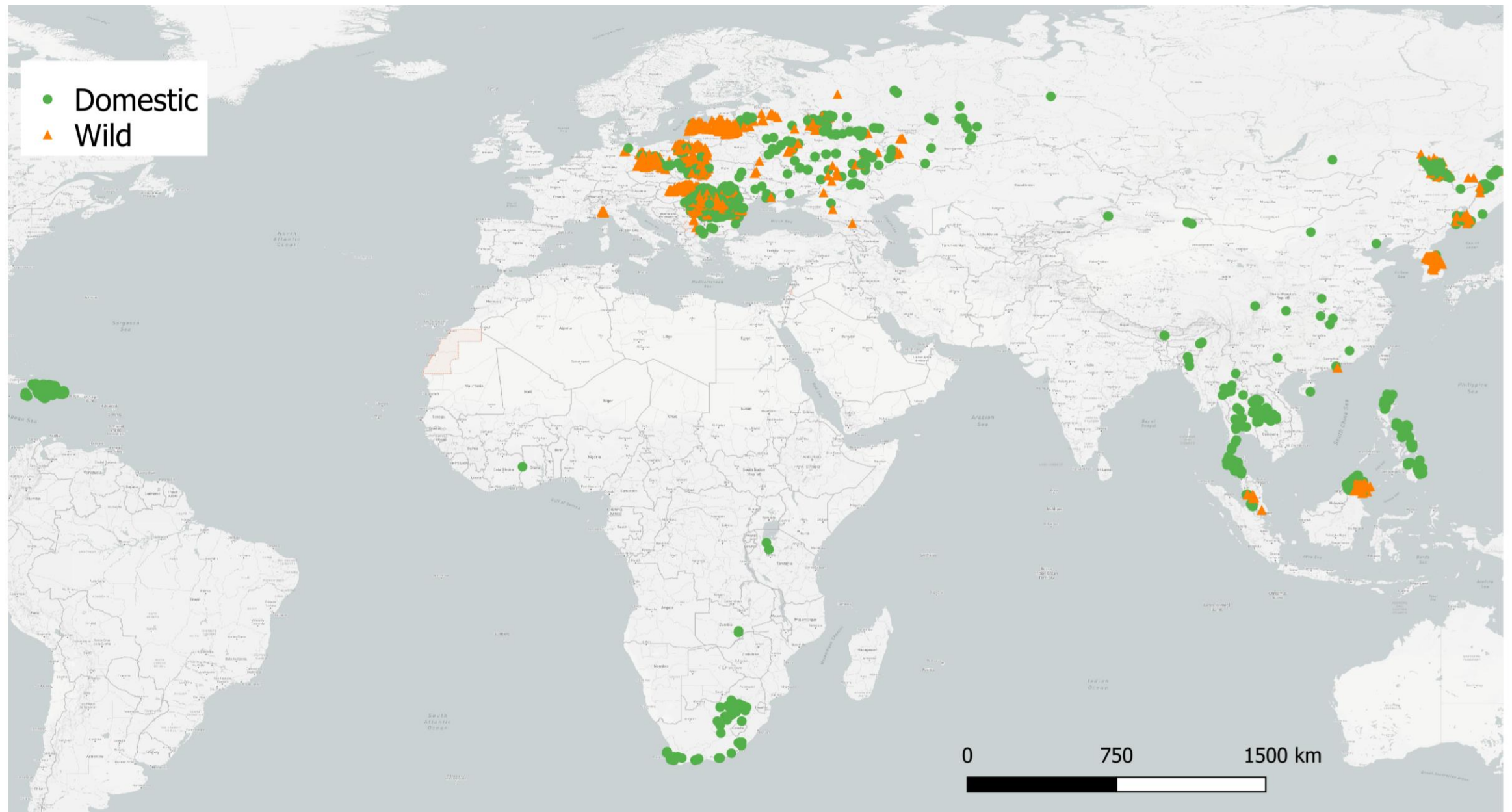


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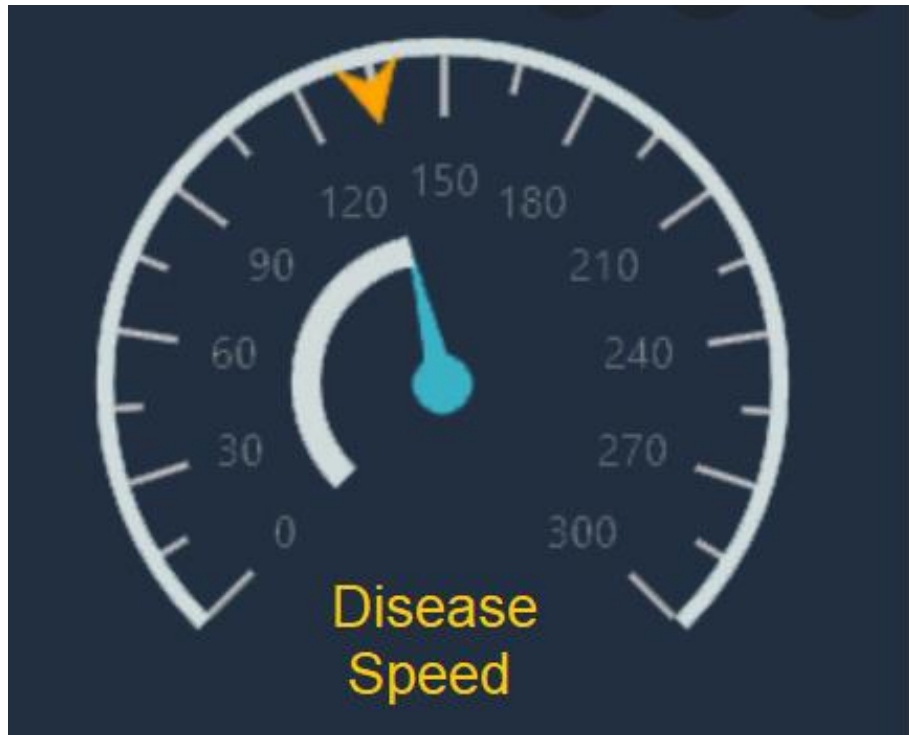
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African swine fever outbreaks started in 2021 – May 2022



Double spatial dynamic of the disease

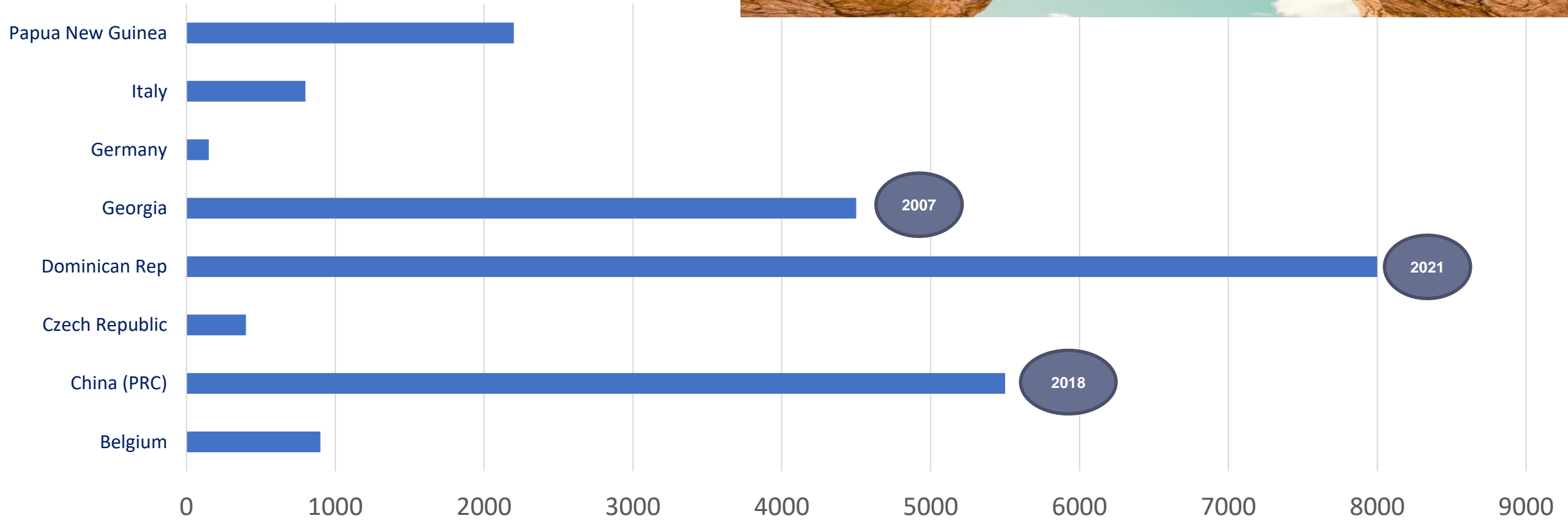


Dynamic of **disease speed** at country level:

- A slow and steady progressive expansion inside the affected areas
- Evaluation in 10 country randomly selected
- Highly variable
- Minimum disease speed of **4 km/month** to a maximum of **96 km/month**
- Average speed **32 km/month**

Double spatial dynamic of the disease

A sudden jump outside the affected areas
(spread to new areas or regions)



- The OIE made available in a dedicated repository on its website, a wide range of resources, such as communication material and training resources:

<https://www.oie.int/en/disease/african-swine-fever/#ui-id-5>

- **ASF bi-weekly situation report** on OIE website:

<https://www.oie.int/en/disease/african-swine-fever/#ui-id-2>

African Swine Fever (ASF) – Situation report 10

This report provides an update of the African swine fever (ASF) situation, according to the information submitted through the World Animal Health Information System of the World Organisation for Animal Health (WAHIS) between 1 April and 14 April 2022.

SITUATION REPORT

10/04/2022

AFRICAN SWINE FEVER (ASF) – SITUATION REPORT 10

This report provides an update of the African swine fever (ASF) situation, according to the information submitted through the World Animal Health Information System of the World Organisation for Animal Health (WAHIS) between 1 April and 14 April 2022.

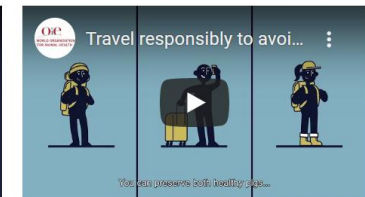
The information included in this report was reported by countries through immediate notifications (IN), follow-up reports (FUR) and six-monthly reports (SMR). More details on the data collection for OIE-listed diseases is available on the OIE website.

This report will cover: (1) ASF distribution and the situation in 2020-2022 (based on INs, FURs and SMRs) and (2) the recent updates that occurred during the 2-week period of 1 April – 14 April 2022 (based on INs and FURs).

ASF distribution and the situation in 2020 – 2022 (based on INs, FURs and SMRs)

ASF has traditionally been present in the African continent, where since 2005 the disease has been reported in 32 countries. In 2018, the disease was introduced to the Italian island of Sardinia and has since become endemic. In 2007, the disease was confirmed in the Caucasus region of Georgia. From there, the ASF virus gradually spread to neighboring countries (i.e., Armenia, Azerbaijan, Russia and Belarus) affecting domestic pigs and wild boar. The first occurrence of ASF was reported in the European Union (EU) in 2014 and since then, numerous EU countries have been affected by this devastating pig disease that continues to be reported in 16 countries (during 2020 / 2022). Two European countries have managed to eradicate the disease: Belgium (event resolved in March 2020) and Czech Republic (event resolved in April 2020).

In August 2020, the virus leapt to China (People's Rep. of), which represented the first occurrence of ASF in Asia. Since then, the disease continued to spread in the region, affecting 10 countries as of 2022. In September 2020, the first occurrence of ASF in Oceania was reported by Timor-Leste, followed by Papua New Guinea (March 2020). In July 2021 the disease reappeared in the Americas after an absence of almost



Technical resources



STRATEGIC PLAN
Global control of African swine fever: A GF-TADs initiative –



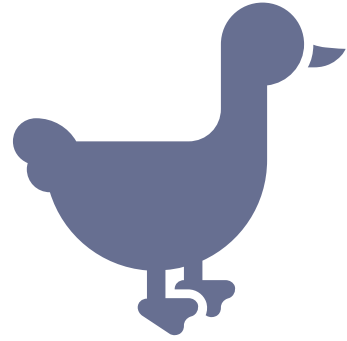
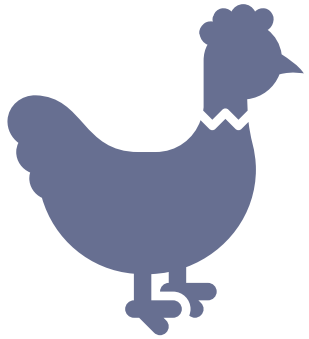
ANNUAL REPORT
Global Control of African swine fever. A GF-TADs initiative –



GUIDELINES
Compartmentalisation Guidelines
.PDF – 9 MB



GUIDELINES
Compartmentalisation Guidelines – African Swine



2. Infection with high pathogenicity avian influenza viruses

Global distribution of HPAI outbreaks reported through the early warning system

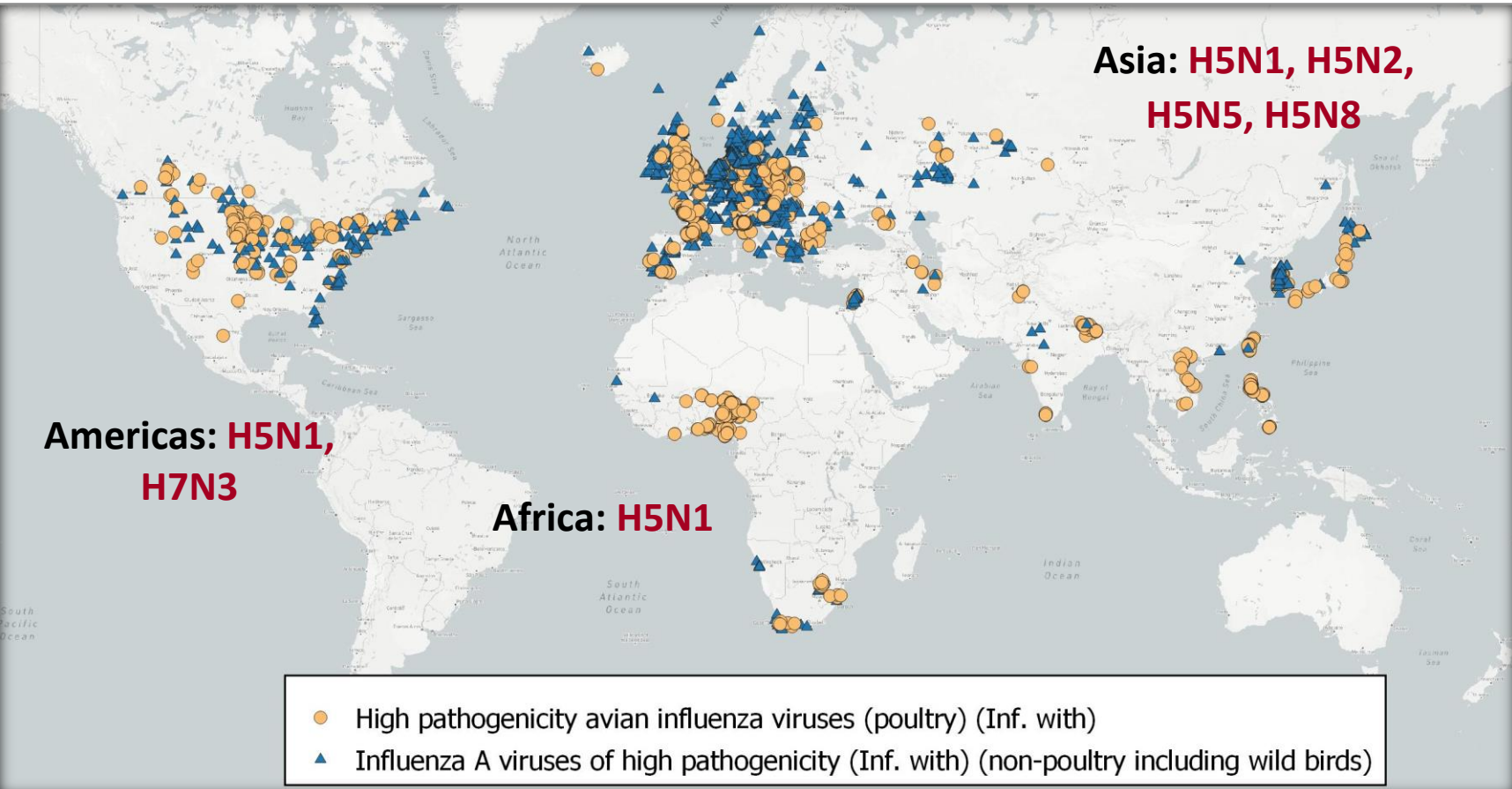
(1 October 2021 – 5 May 2022)

**Europe: H5N1, H5N2,
H5N3, H5N5, H5N8**

**Asia: H5N1, H5N2,
H5N5, H5N8**

**Americas: H5N1,
H7N3**

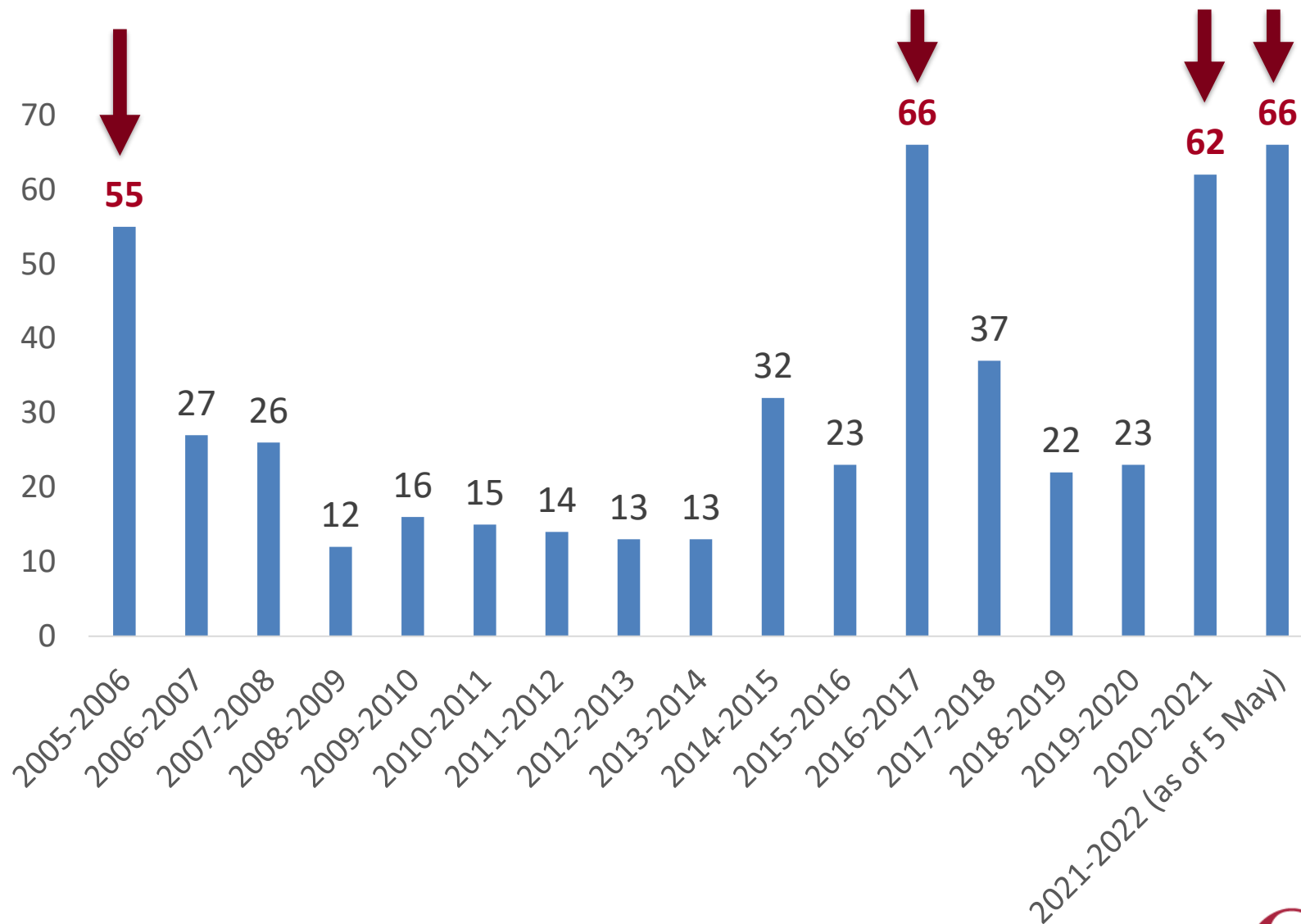
Africa: H5N1

- 
- High pathogenicity avian influenza viruses (poultry) (Inf. with)
 - ▲ Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds)

- **47** countries and territories reported HPAI outbreaks in poultry & **53** in birds other than poultry (including wild birds)
- Predominant subtype : **H5N1 (97% of the outbreaks)**
- The OIE recommends that its Members ensure the timely sharing of information through OIE-WAHIS as well as the overall monitoring of the situation in their territories.

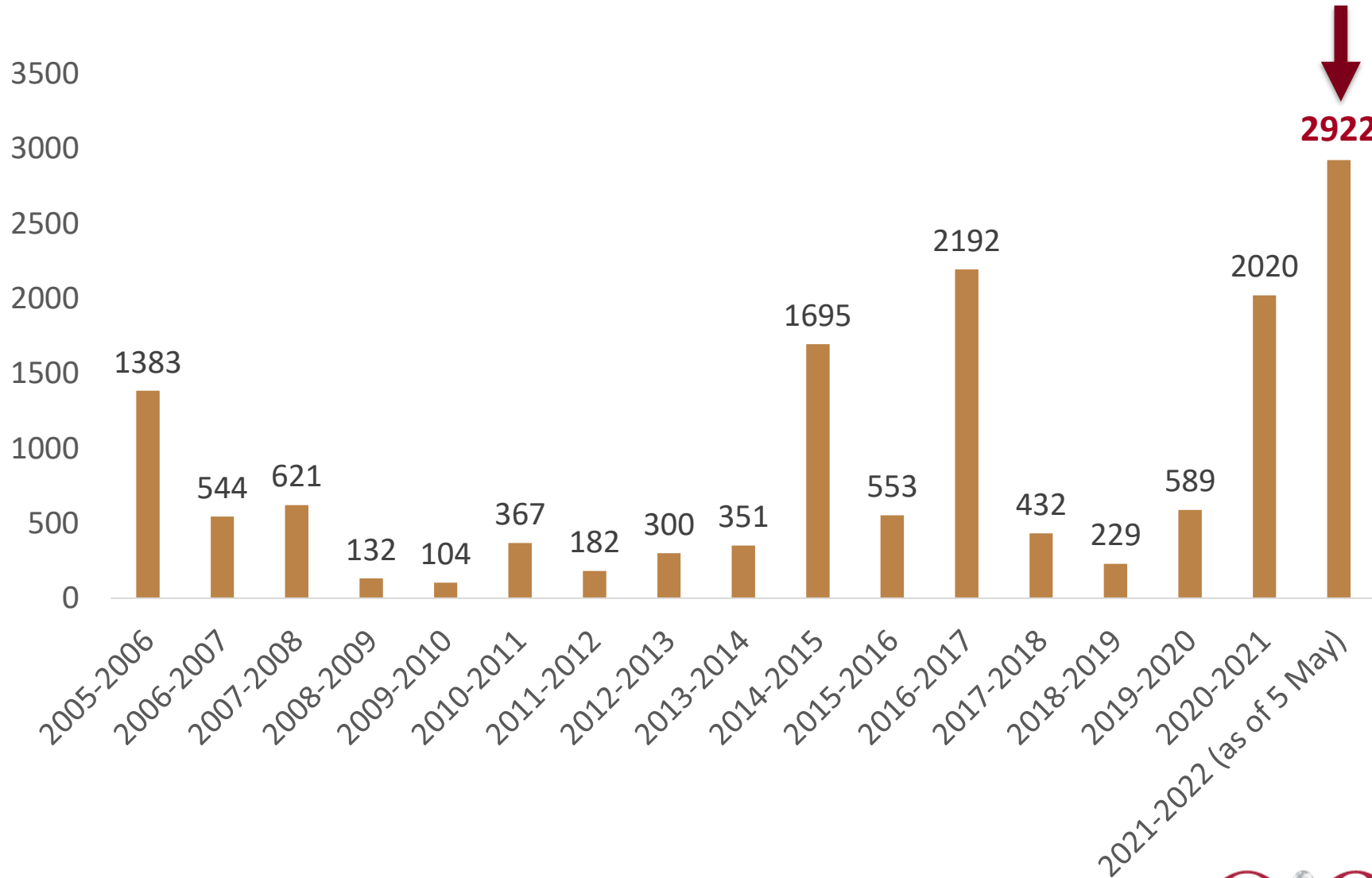
Number of countries and territories affected by HPAI by AI seasonal wave

(1 October 2005 - 5 May 2022)



The number of countries affected by HPAI in poultry and non-poultry birds in 2020/2021 & 2021/2022 are very high, and comparable to previous peaks observed in 2005/2006 and 2016/2017

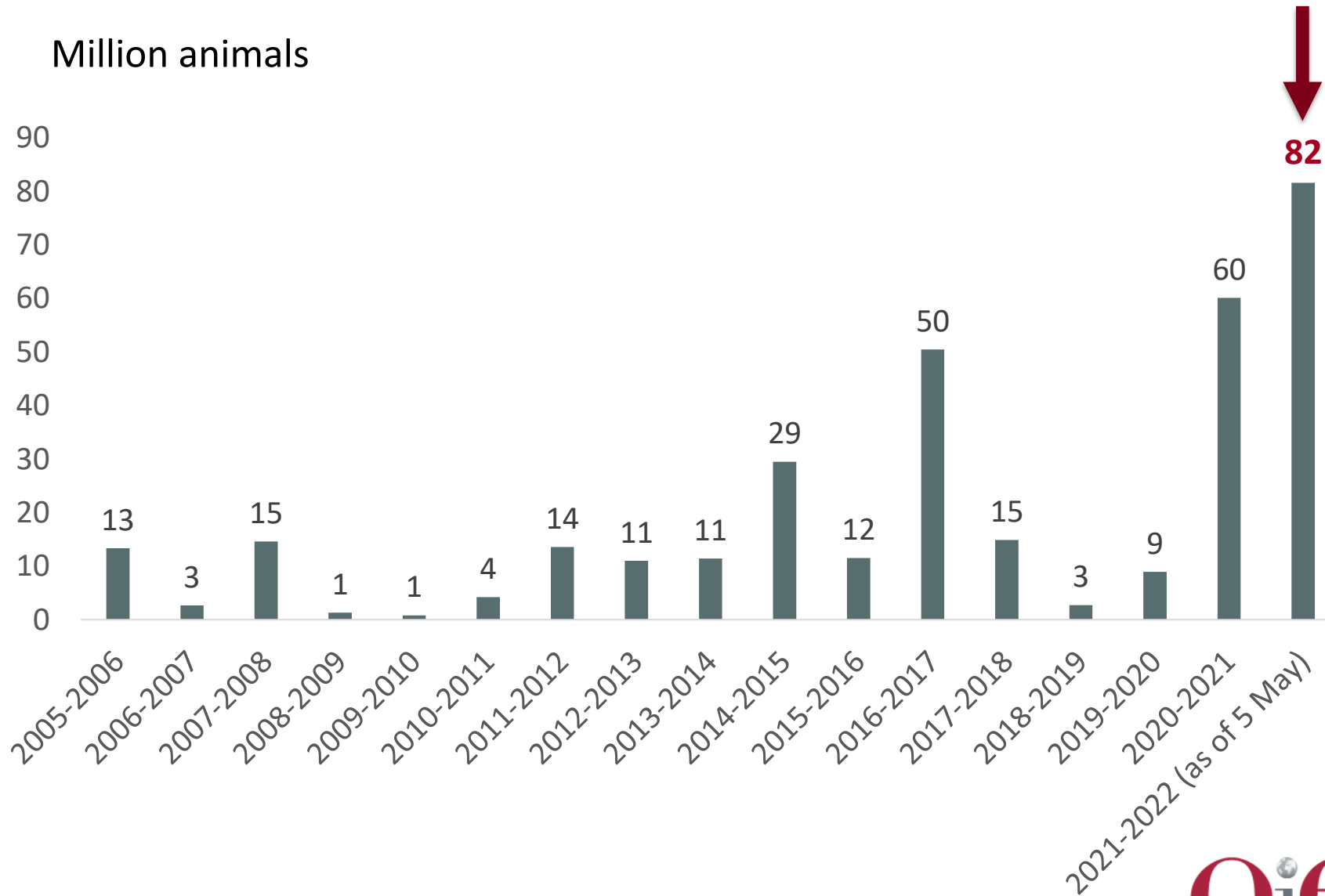
Number of outbreaks in poultry, by AI seasonal wave (1 October 2005 - 5 May 2022)



In 2021/2022 :
highest number of
outbreaks recorded
in poultry

Number of losses in poultry, by AI seasonal wave

(1 October 2005 - 5 May 2022)



The number of poultry losses in 2021/2022 is higher than in all previous seasonal waves

One Health approach to Avian influenza

- During these two years, about a quarter of the world's countries were affected by HPAI in poultry
- In the last 20 years, humans have occasionally been infected by H5N1, H7N9 and H5N6 subtypes.
- Increase in the number of humans infected with **H5N6 subtype viruses in China (People's Rep. of)** in 2021/2022 & **H5N1 cases in United Kingdom** (January 2022) and **USA** (April 2022).
- None of these waves have had any sustained transmissibility in humans
- **OFFLU network** important for pandemic preparedness purposes and in helping to reduce the negative impacts of animal influenza viruses



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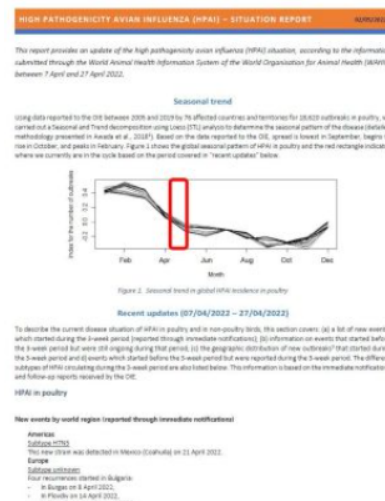
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One Health approach to Avian influenza

- **Infection of domestic and captive wild birds with low pathogenicity avian influenza viruses having proven natural transmission to humans associated with severe consequences** adopted for inclusion in the OIE list of diseases in 2021 & requirement to notify the disease came into force in January 2022 (no such event had reported to the OIE so far)
- The OIE urges countries to intensify their surveillance efforts, implement strict biosecurity measures at farm level to prevent the introduction of the disease, continue timely reporting of avian influenza outbreaks, and maintain the high quality of the information provided to support early detection and rapid response to potential threats to both animal and public health.

- **Situation report HPAI** published every 3 weeks on OIE website - <https://www.oie.int/en/disease/avian-influenza/#ui-id-2>

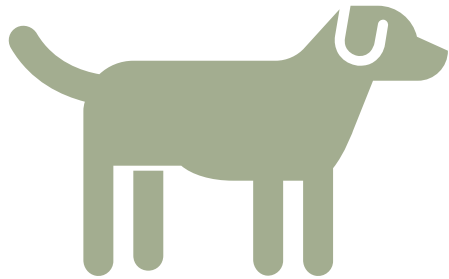


High Pathogenicity Avian Influenza (HPAI)- Situation Report 29

This report provides an update of the high pathogenicity avian influenza (HPAI) situation, according to the information submitted through the World Animal Health Information System of the World Organisation for Animal Health (WAHIS) between 7 April and 27 April 2022.

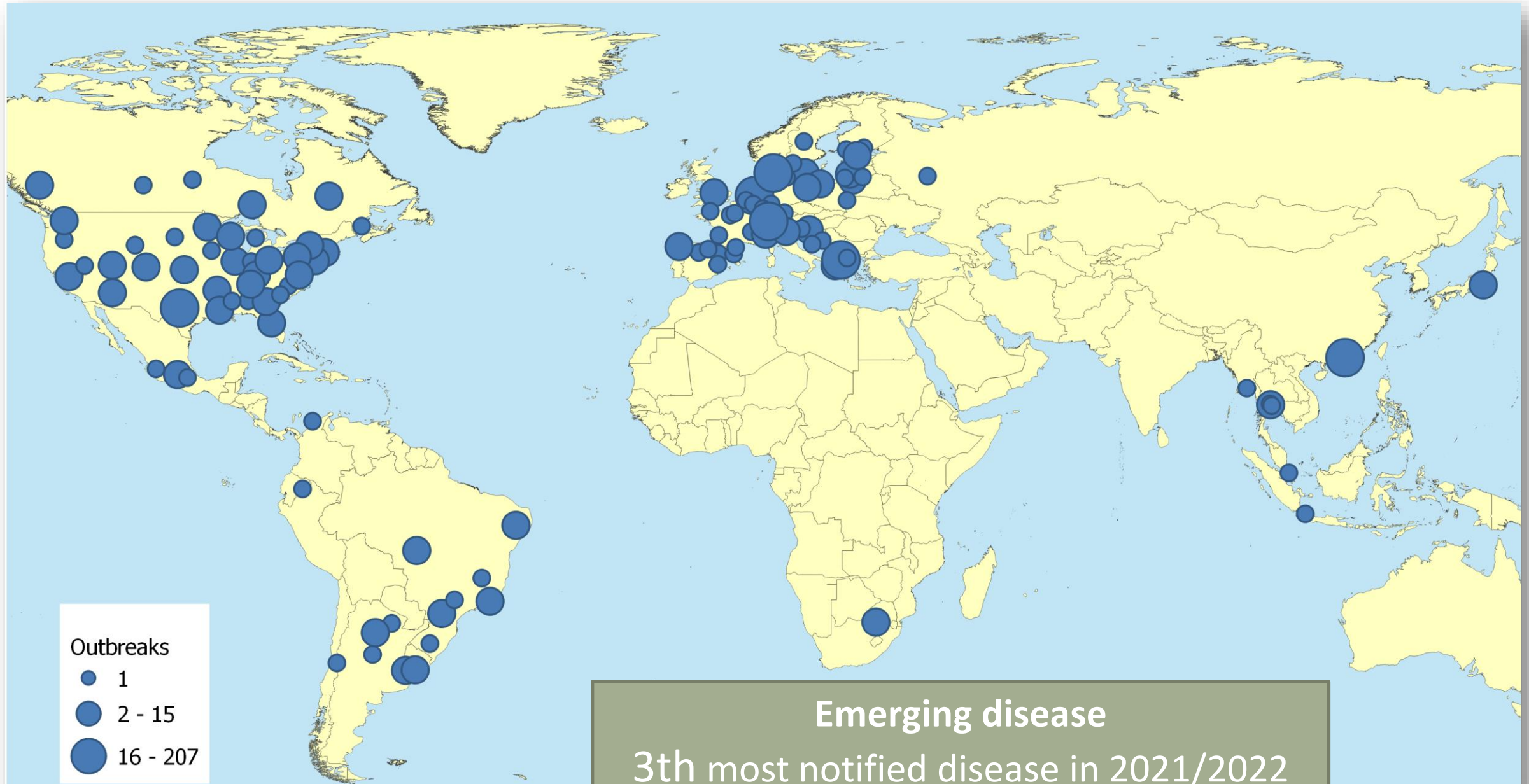
SITUATION REPORT

02/05/2022




3. Infection with SARS-CoV-2 in animals


Worldwide distribution of SARS-CoV-2 outbreaks in 23 animal species reported to the OIE by 36 countries (as of 5 May 2022)










23 Species notified for SARS-Cov-2




Production



Wildlife



Zoo



Pets



One Health approach to SARS-CoV-2

- OIE actions on SARS-CoV-2, guidelines, and advisory groups
- SARS-CoV-2 monthly situation report

OIE Members have been keeping the OIE updated outcomes of investigations in animals:

Page last updated 11 April 2022

[Guidance](#) to report cases of animals infected with SARS-CoV-2 to the OIE

[Situation report #1 on SARS-CoV-2 and animals \(31/05/2021\)](#)

[Situation report #2 on SARS-CoV-2 and animals \(30/06/2021\)](#)

SARS-COV-2 IN ANIMALS – SITUATION REPORT 12

30/04/2022

COVID-19, caused by infection with SARS-CoV-2, is a human disease which most likely emerged from an animal source and through widespread human-to-human transmission became a pandemic. As of 30 April 2022, around **500 million** confirmed human cases have been reported worldwide, with more than **6 million** human deaths¹. The nature of this new zoonotic virus, together with its widespread distribution and the susceptibility of some animal species to infection, manifests in animal infections arising from close contact between people and animals. Conversely, there is also evidence that, for some animal species, close contact with infected animals can represent a potential source of infection in humans². This report is a monthly update of the global situation of the report of SARS-CoV-2 in animals, with a special focus on the new reports submitted to the OIE in the last month.

Global situation since the beginning of the pandemic

The worldwide geographical distribution of SARS-CoV-2 outbreaks in animals reported to the OIE is shown in Figure 1. The first case of SARS-CoV-2 in animals was officially reported to the OIE by Hong-Kong (SARC) on 29 February 2021 in a dog.

Epidemic
intelligence
activity

- Creation of a specific category “animals and coronavirus”
- OIE capture around 90 news/day



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One Health approach to SARS-CoV-2

- The OIE recommends its Members to keep informing the global community in the event of SARS-CoV-2 cases occurring in animals, to better understanding the disease epidemiology and dynamics.
- Within the framework of One Health collaboration with WHO, specific attention should be given to providing details of the strain isolated in animals, so that any potential strain of concern can be carefully monitored.

- The OIE maintains a close collaboration with WHO and FAO for the monitoring of SARS-CoV-2 (GLEWS+)



SARS-CoV-2
in animals
used for
fur farming





CHAPTER 3

Members' reporting on diseases in aquatic animals

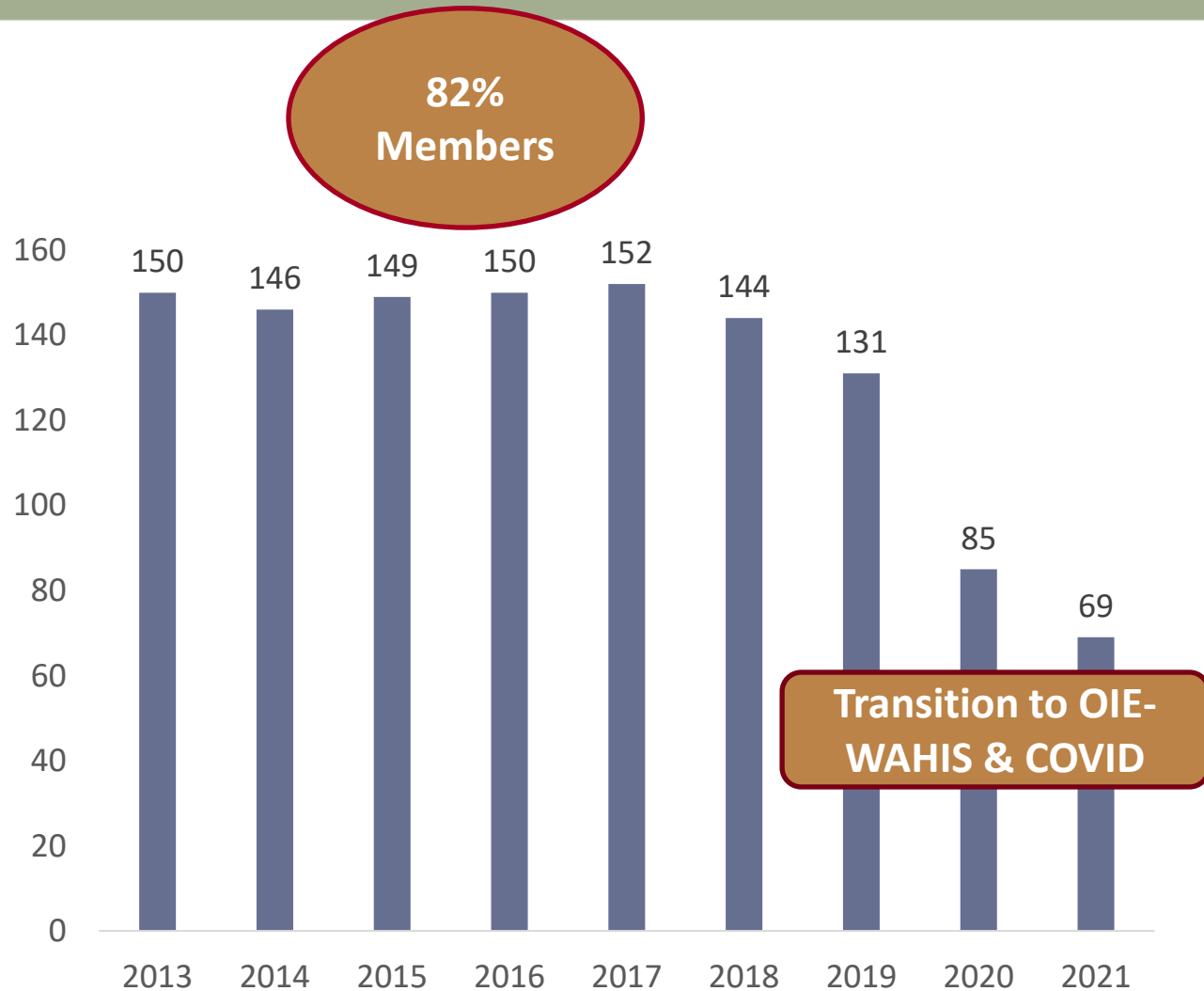


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Number of countries and territories from which OIE has received six-monthly reports for aquatic animals, by report date (2013-2021)



- Several factors can explain the decrease between 2019 and 2020/2021.
- The OIE urges its Members to pursue their efforts with the support of the OIE to send their pending reports and to continue sharing the information in a timely manner, providing quality data, best reflecting the reality of the situation.
- The OIE has initiated activities for the identification of barriers to aquatic animal disease reporting and the identification of improvement measures, in the context of the first *OIE Aquatic Animal Health Strategy*, launched in May 2021.

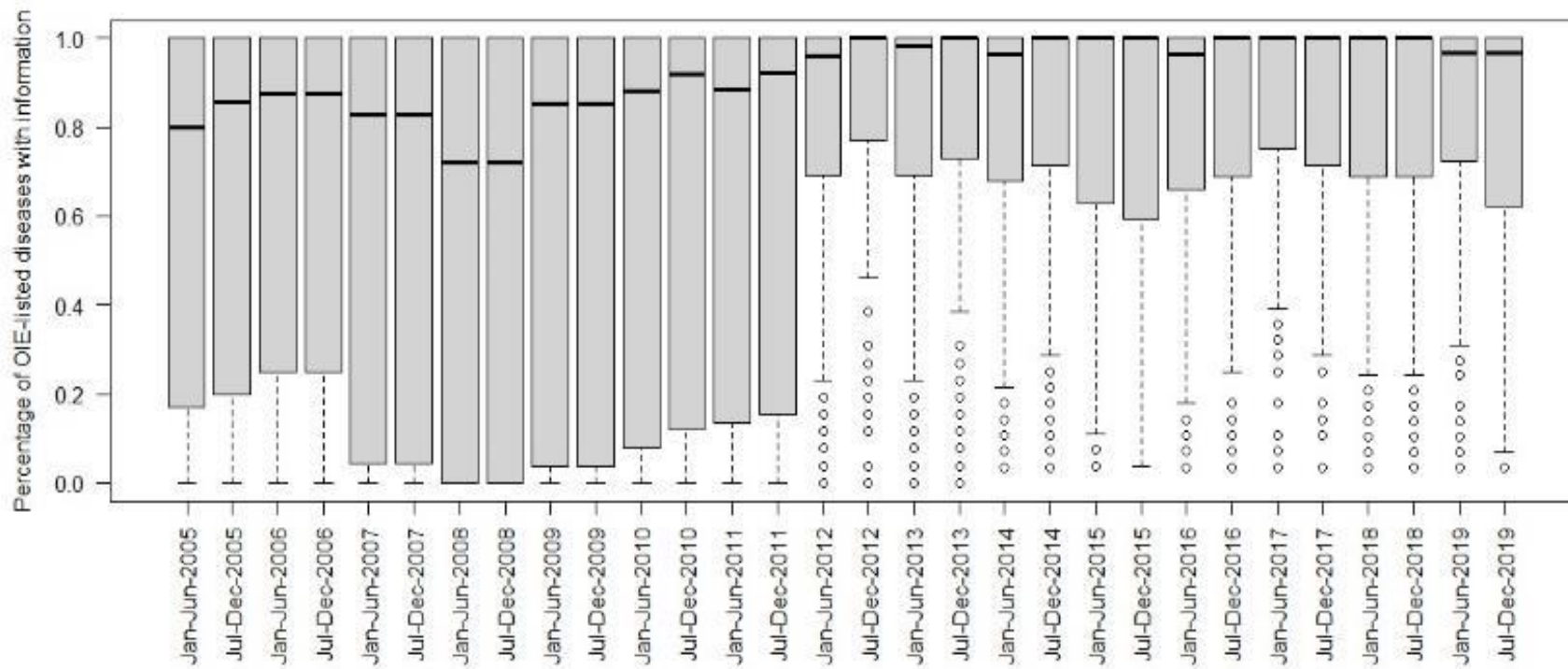


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Distribution of reporting countries and territories, based on their percentage of OIE-listed aquatic animal diseases with information in six-monthly reports, for each semester between 2005 and 2019



These reporting countries and territories have been providing information on most OIE-listed diseases through their six-monthly reports, since 2012, in a regular way.

Half of the countries have been reporting information for nearly all OIE-listed diseases during this period. This reporting is essential in order to monitor the global situation of OIE-listed aquatic animal diseases over time.

No significant difference by world Region or animal group (fish, crustaceans, molluscs, amphibians)



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CHAPTER 4

OIE-WAHIS state of play



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OIE-WAHIS : world reference animal health platform



OIE-WAHIS is broadly used for **reporting** purposes (early warning and monitoring reports)



Continuous **engagement** with stakeholders and users via: training, feedback collection, support desk, communication campaigns



Evolutive maintenance implemented to maintain production platform



Continued **investments** are required to cover the development and evolution

<https://wahis.oie.int>



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Learning from the past



SCOPE

Limited scope delivered

New roadmap define implementation of outstanding scope



USER EXPERIENCE

Knowledge acquisition
Poor User Experience

Training; e-learning; FAQs, videos. support desk and observation session; UX implemented in optimisation



QUALITY

Bugs, performance issues and instabilities reported

Ongoing optimisation of infrastructure and functional modules; Data and code fixes applied



DELAYS

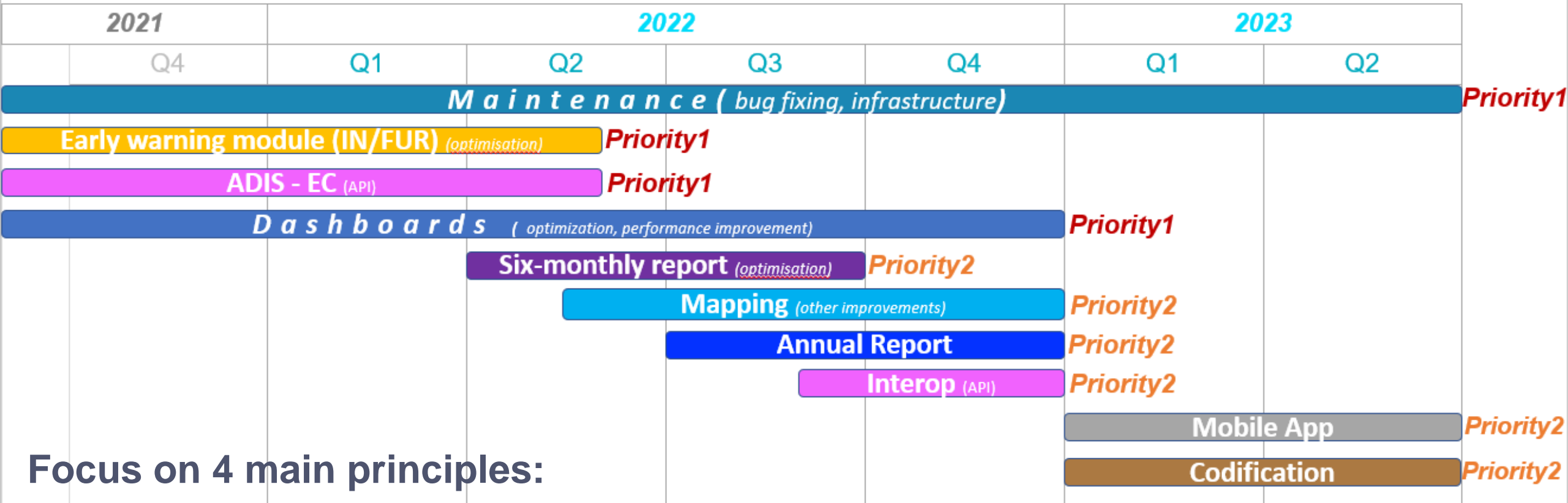
Delays linked to complexity and Covid-19 made platform delivery challenging

Simplify solution using agile methodology

Challenges

Actions

THE FUTURE: OIE-WAHIS provisional roadmap



Focus on 4 main principles:

- Optimization and evolutive maintenance,
- Continuous improvement (new development)
- Data governance and consistency
- Partnering with global health



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**Thank you for your attention
Merci pour votre attention
Gracias por su atencion**



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