Epidemiological situation on Vector Borne Diseases in Europe

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Data Integration Department



World Organisation for Animal Health Organisation mondiale de la santé animale

Organización Mundial de Sanidad Animal **183 Members**

122 listed diseases **Domestic animals** and wildlife

91 terra

31 aqua

3 Emerging diseases

High Pathogenicity Avian Influenza (HPAI) in cattle

Terrestrials Type of animals

Emerging Diseases

Infection with covert mortality nodavirus (CMNV)

Aquatics, Fish Type of animals

Emerging Diseases Infection with Enterocytozoon hepatopenaei

Useful links

Aquatics, Crustaceans





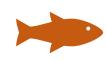






















Reporting LISTED Diseases



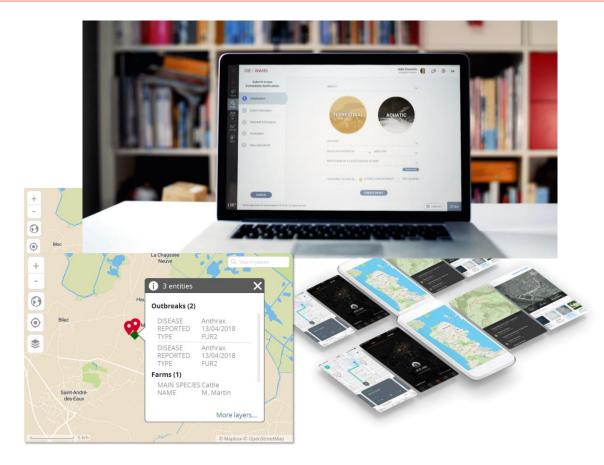
User-friendly, intuitive, time-efficient



High resolution dynamic mapping



Open access to WAHIS data



https://wahis.woah.org

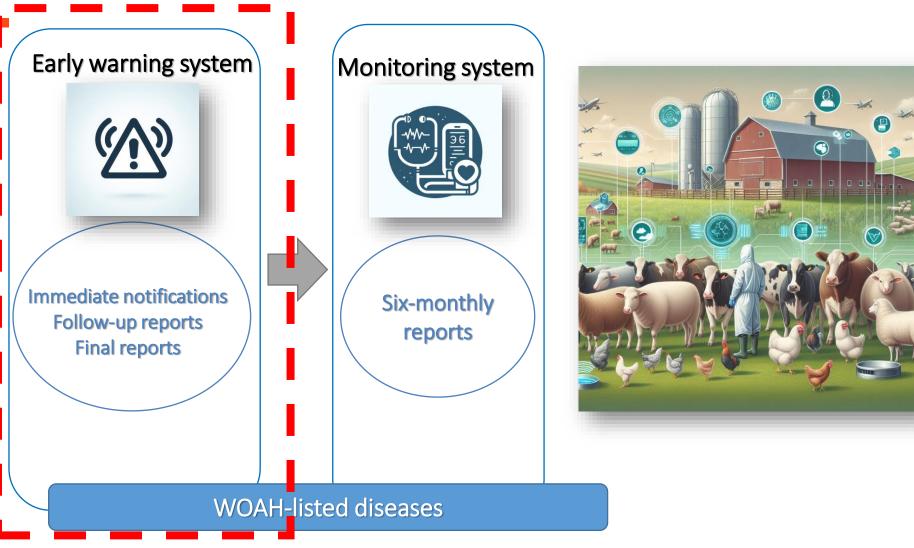
Facilitates reporting, promotes the use of data

WAHIS - Data collection

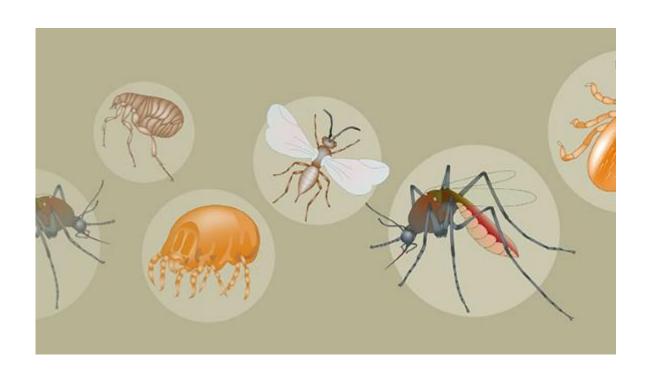
122 listed diseases
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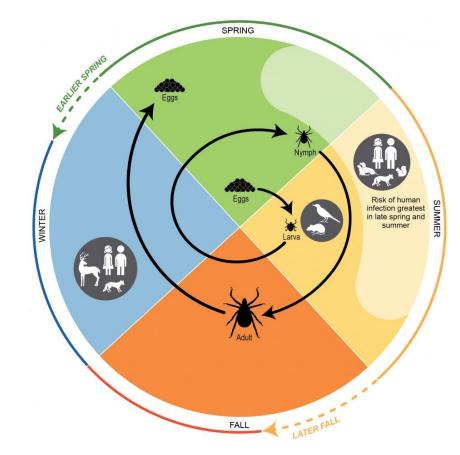
3 Emerging diseases

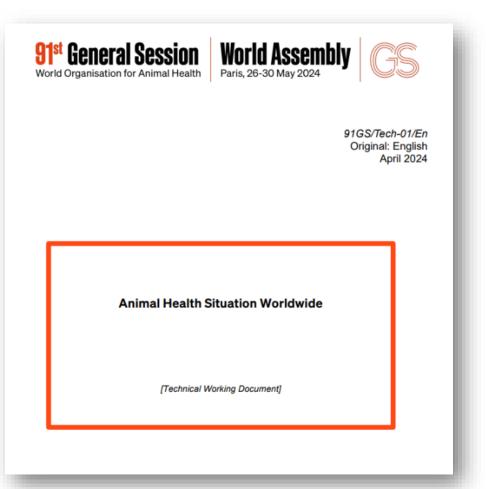
183 Members



Around 27 Vector borne diseases

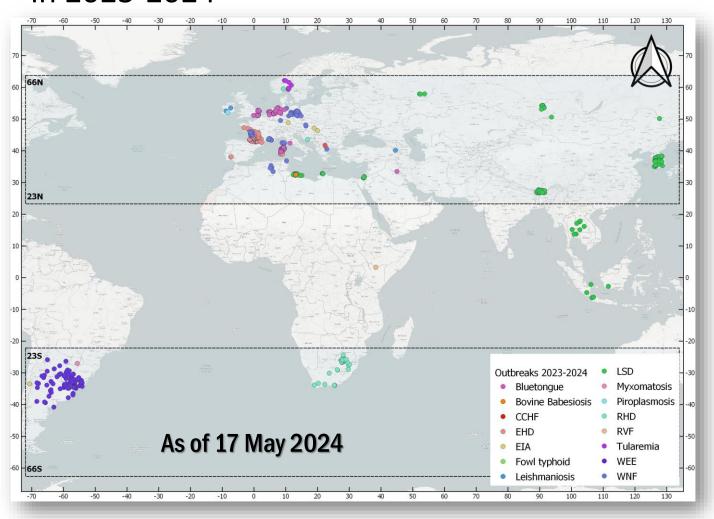






Data source : <u>WAHIS</u> early warning

Evolution in 2023-2024

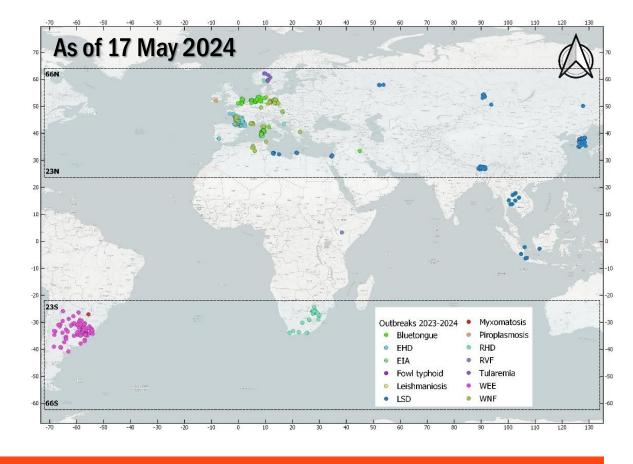


Effect of climate change?

99% of the 2,501 VBD outbreaks in 2023-2024 were reported in temperate regions (exceptional events)

Analysis of the **maximum latitude** and comparison with trend of the **global temperature anomalies**(National Centres for Environmental Information)





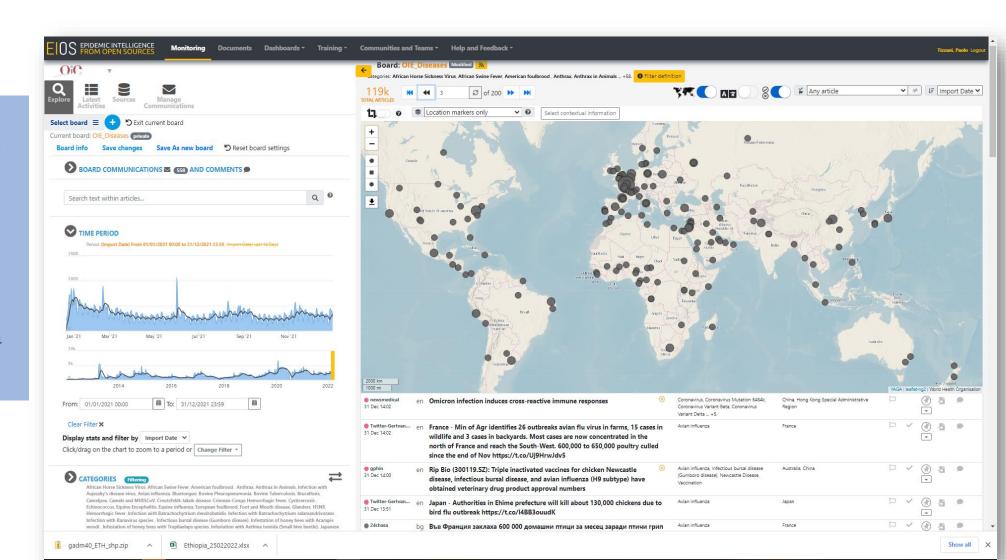
- increasing trend in the maximum latitude of the VBD outbreaks reported over the years
- positive correlation between maximum latitude and temperature anomalies, stronger every year



Epidemic intelligence (EI) activity

EIOS EPIDEMIC INTELLIGENCE FROM OPEN SOURCES

- **EIOS** system for epidemic intelligence
- **Daily screening** of the web for all listed diseases
- Communication between WOAH and Members

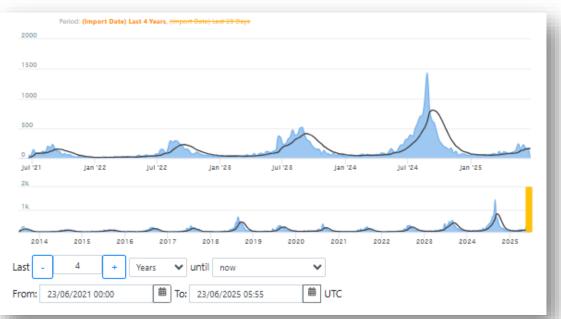




Epidemic intelligence (EI) activity

EIOS EPIDEMIC INTELLIGENCES

West Nile Fever



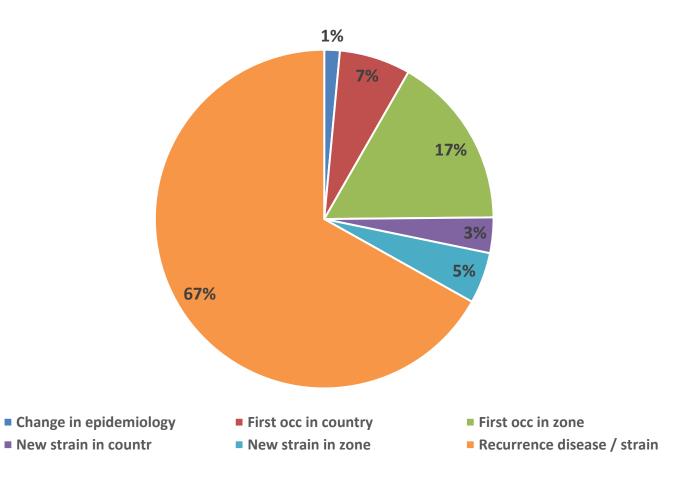
Bluetongue



VBD evolution in time since 2005 – Early warning system

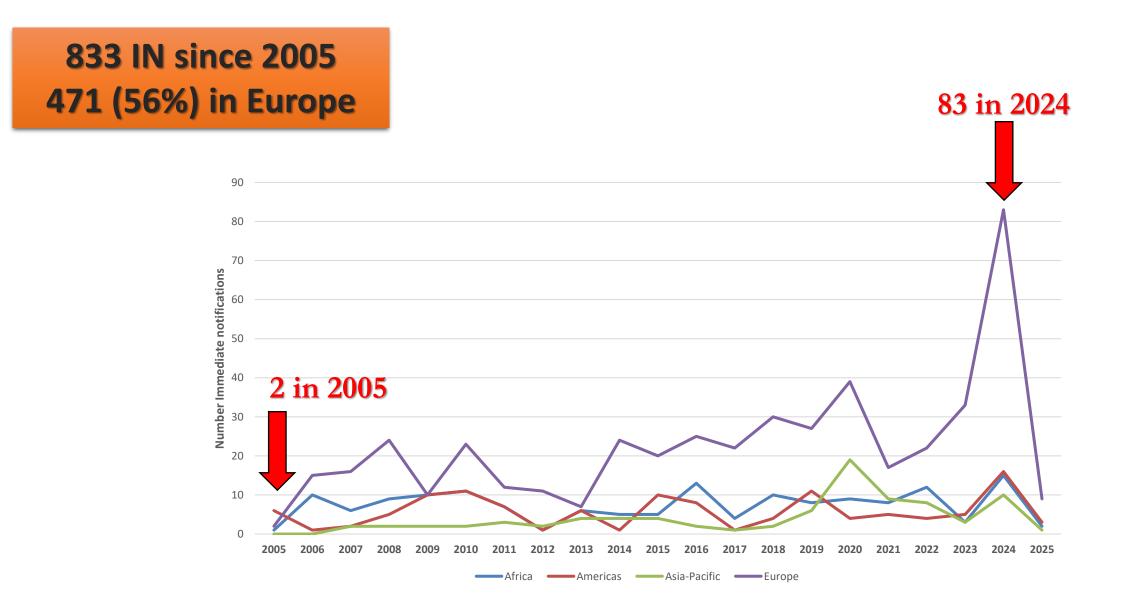
833 IN since 2005 471 (56%) in Europe

Region	Numb. IN
Africa	155
Americas	121
Asia - Pacific	86
<u>Europe</u>	<mark>471</mark>





VBD evolution in time since 2005 – Early warning system

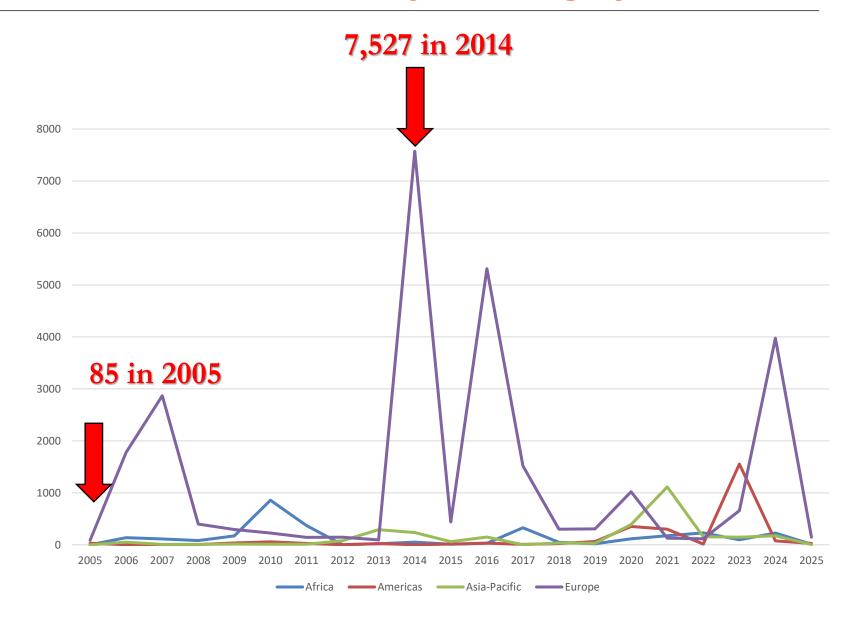




VBD evolution in time since 2005 – Early warning system

36,247 outbreaks since 2005 27,530 (76%) in Europe

1,006,502 cases since 2005 262,453 (26%) in Europe

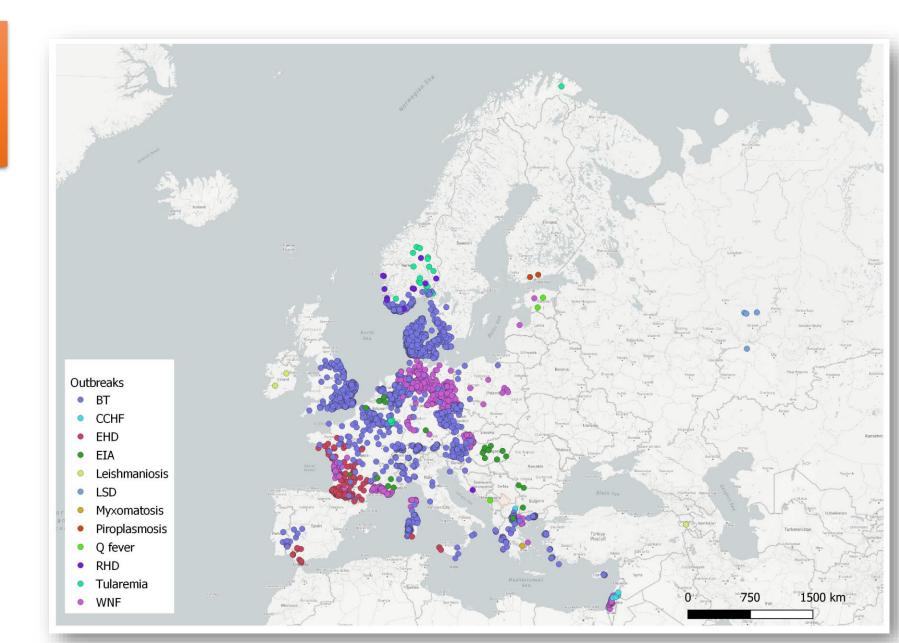




VBD epidemiological situation 2022 – 2025 - Early warning system

4,895 outbreaks since
2022
12 diseases

Disease	N outbreaks	
ВТ	3936	
WNF	581	
EHD	271	
EIA	30	
LSD	29	
Tularemia	23	
RHD	13	
CCHF	3	
Leishmaniosis	3	
Q fever	3	
Piroplasmosis	2	
Myxomatosis	1	

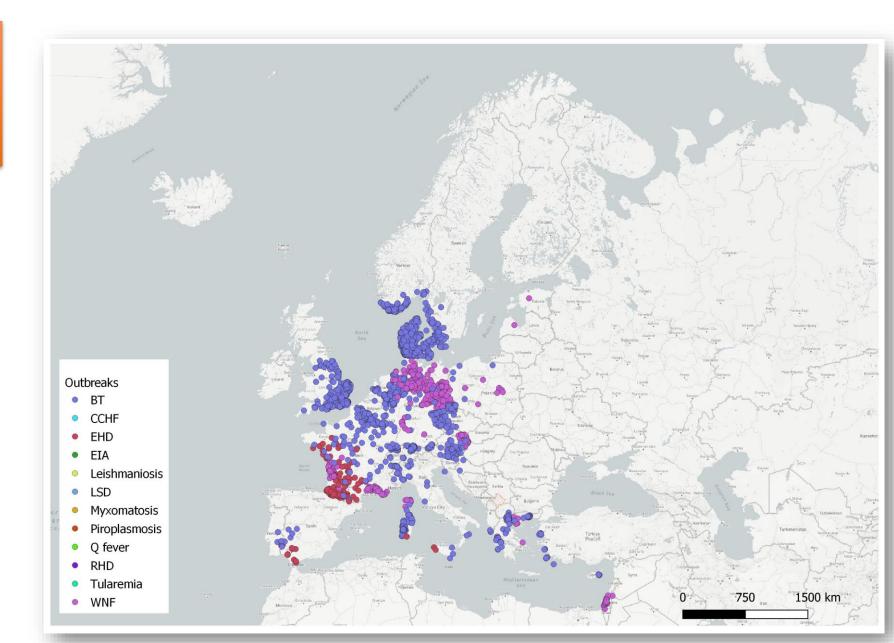




VBD epidemiological situation 2022 – 2025 - Early warning system

4,895 outbreaks since
2022
12 diseases

Disease	N outbreaks	
<mark>BT</mark>	<mark>3936</mark>	
WNF	<mark>581</mark>	
<mark>EHD</mark>	<mark>271</mark>	
EIA	30	
LSD	29	
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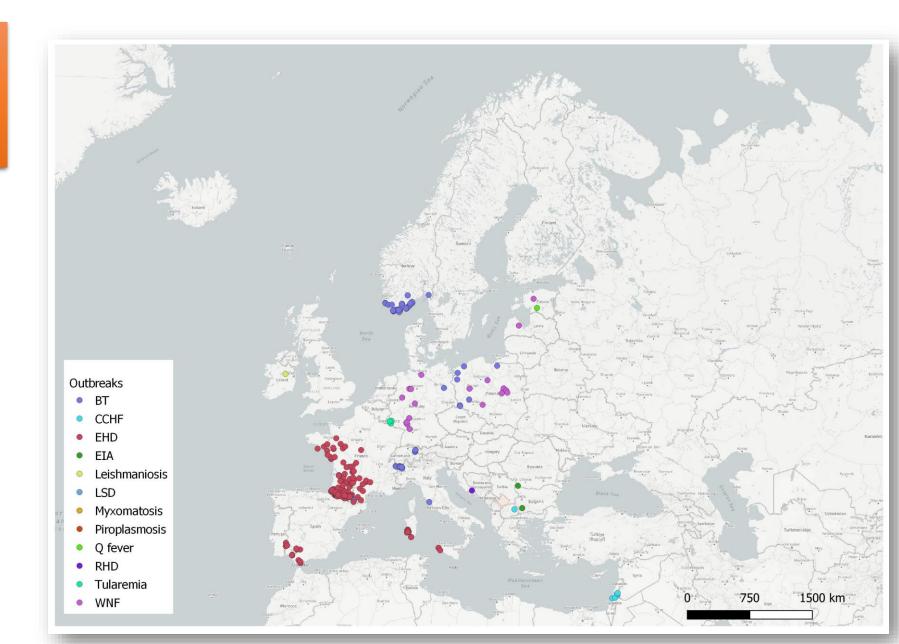




VBD epidemiological situation 2022 – 2025 - Early warning system

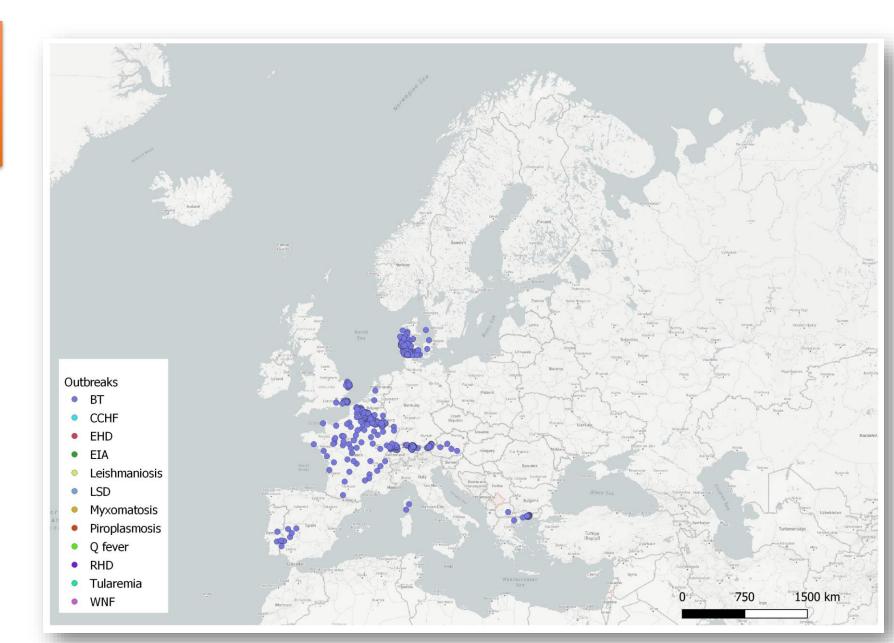
4,895 outbreaks since 2022
12 diseases

Disease	First occ in country	First occ in zone
<mark>BT</mark>	<mark>47</mark>	<mark>24</mark>
CCHF	2	1
<mark>EHD</mark>	<mark>269</mark>	<mark>2</mark>
EIA	0	2
Leishmaniosis	0	1
LSD	0	3
Q fever	1	0
RHD	1	0
Tularemia	4	0
WNF	<mark>10</mark>	<mark>10</mark>



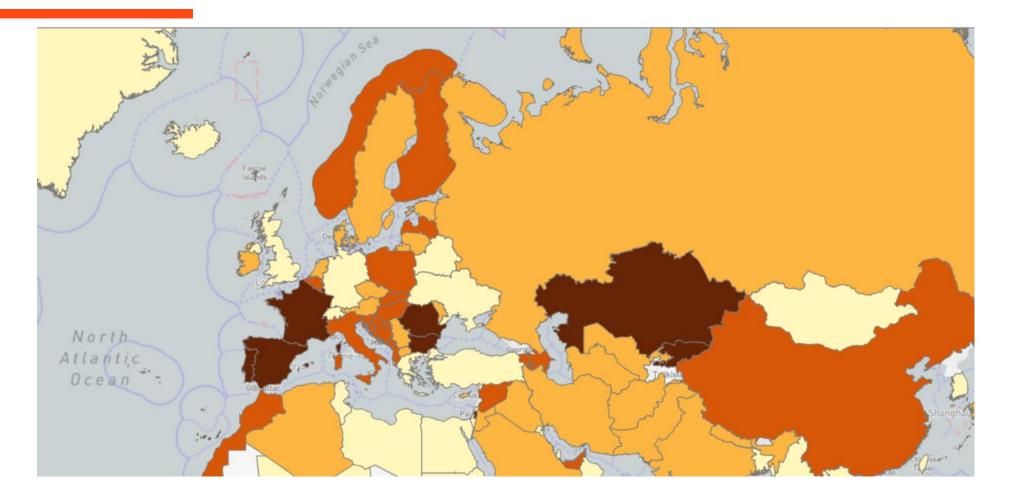
4,895 outbreaks since 2022
12 diseases

Disease	ВТ	
New strain in	1443	
country		
New strain in	246	
zone		



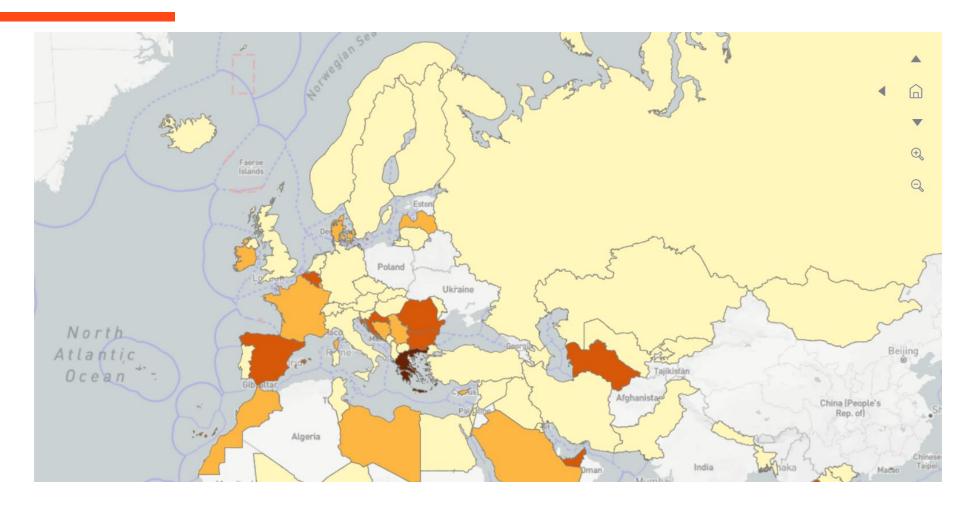


Bluetongue 2022 – 2025 – Surveillance in place



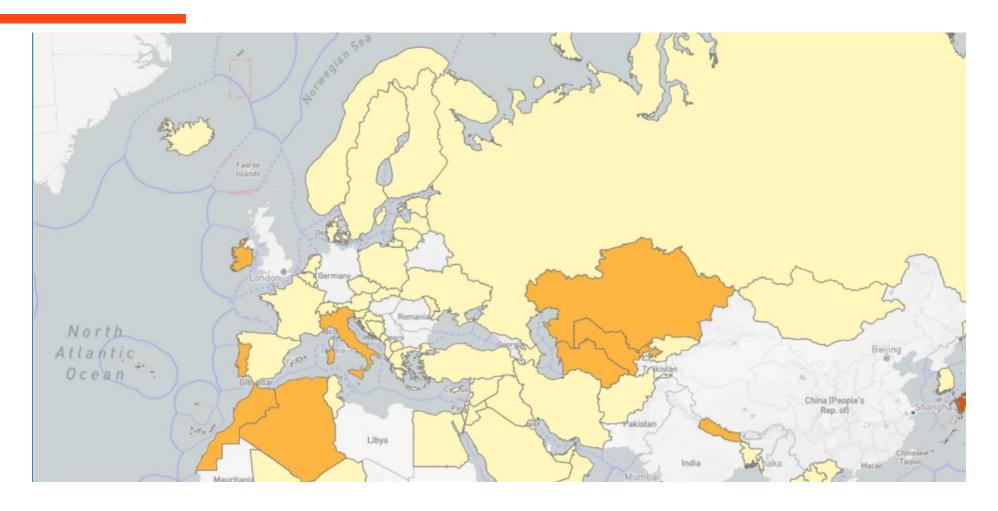


WNF 2022 – 2025 – Surveillance in place

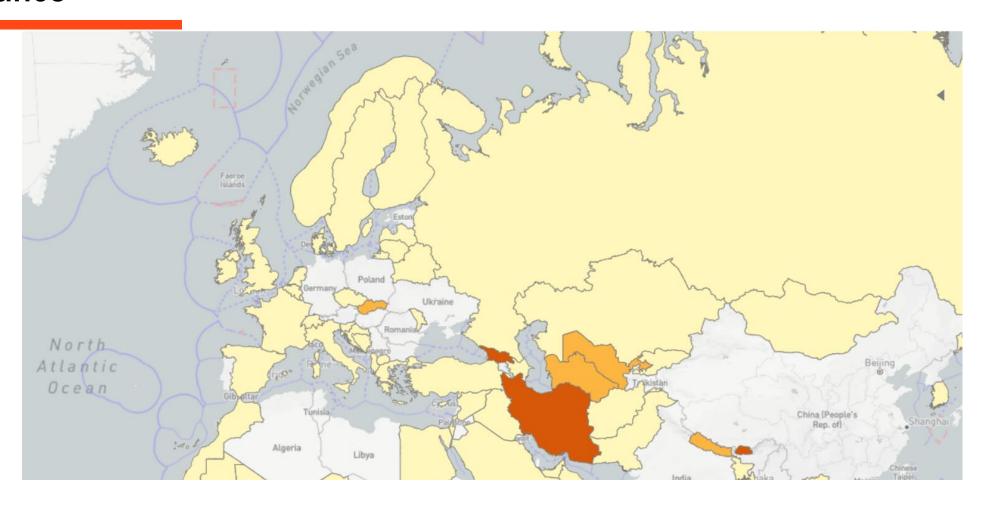




EHD 2022 – 2025 – Surveillance in place











Summary

Key points

- VBDs represent a significant proportion (30%) of the WOAH listed diseases
- VBD reported more and more frequently at higher latitudes
- Since 2005, Europe has reported around 60% of exceptional events linked to VBD, with a significant increase in recent years
- From 2022 to 2025, three diseases (BT, WNF and EHD) accounted for 98% of reported exceptional epidemiological events
- The level of surveillance varies across the region depending on the disease
- This presentation focuses on exceptional epidemiological events and does not consider stable ones

Thank you

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