VBD MANDATE UPDATE

11 March 2026

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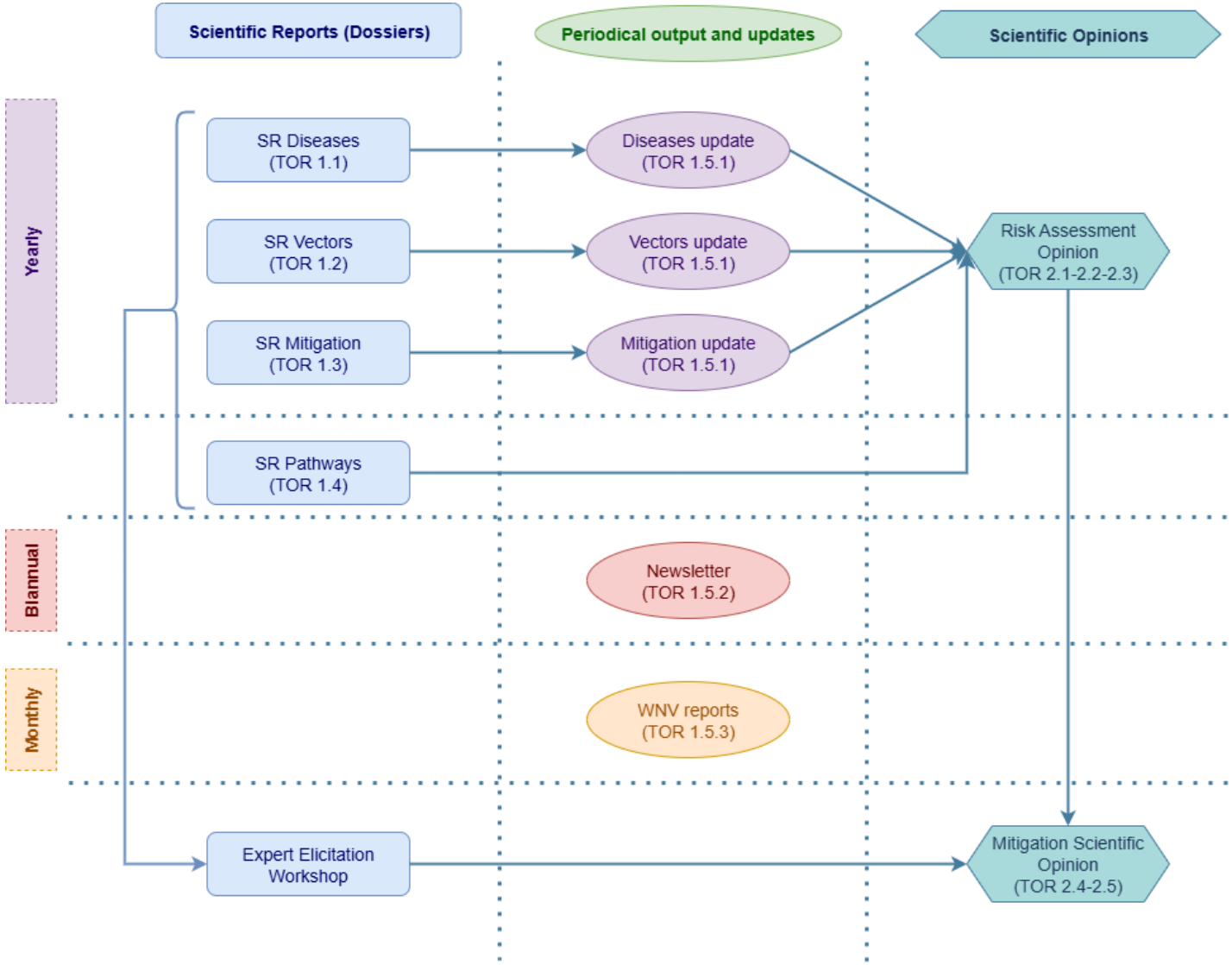
EUROPEAN FOOD SAFETY AUTHORITY

EFSA'S VBD'S MANDATE



- Evidence collection in 4 Scientific Reports on 25 VBD's
- 1 SO on Risk assessment of introduction, spread and impact of the VBDs
- 1 SO with Assessment of available mitigation measures
- Monthly WNF reports
- Biannual newsletters

LISTED VBDS

Disease	A*	B*	C*	D*	E*	Data available	Vector group	Pathogen present in EU	Vector(s) present in EU	Zoonotic potential	Main Animal Hosts	Clinical signs in animals
African Horse Sickness Virus (AHSV)	x			x	x	+++	Culicoides	No	Yes	No	Equids	Yes
Lumpy Skin Disease Virus (LSDV)	x			x	x	+++	Stomoxys, Tabanidae***	Yes	Yes	No	Cattle	Yes
Rift Valley Fever Virus (RVFV)	x			x	x	+++	Culicidae	No	Yes	Yes	Ruminants	Yes
Bluetongue virus (BTV)			x	x	x	+++	Culicoides	Yes	Yes	No	Ruminants	Yes
Epizootic haemorrhagic disease virus (EHDV)				x	x	++	Culicoides	Yes	Yes	No	Ruminants	Yes
Equine Infectious Anemic Virus (EIAV)				x	x	++	Tabanidae***	No	Yes	No	Equids	Yes
Trypanosoma evansi				x	x	+	Tabanidae/Culicidae	Yes	Yes	Unclear	Large Ungulates	Yes
Venezuelan Equine Encephalitis (VEEV)				x	x	++	Culicidae	No	Yes	Yes	Equids, birds	Yes
Coxiella burnetii – Q fever					x	+++	Ixodidae	Yes	Yes	Yes	Ruminants	Mostly asymptomatic
Western equine encephalitis (WEEV)****					x	+	Culicidae	No	Yes	Yes	Equids, birds	Yes
Japanese Encephalitis Virus (JEV)					x	++	Culicidae	No	Yes	Yes	Swine	Yes
West Nile Fever Virus (WNFV)					x	+++	Culicidae	Yes	Yes	Yes	Equids, birds	Yes

NOT LISTED VBD

Disease	A*	B*	C*	D*	E*	Data availability	Vector group	Pathogen present in EU	Vector(s) present in EU	Zoonotic potential	Main Animal Hosts	Clinical signs in animals
Akabane virus (AKAV)						+++	Culicoides/Culicidae	No	Yes	No	Ruminants	Yes
Besnoitia besnoiti						+	Stomoxys, Tabanidae***	Yes	Yes	No	Ruminants (cats are definitive hosts)	Yes
Borrelia burgdorferi						+++	Ixodidae	Yes	Yes	Yes	Multiple species	Yes
Bovine ephemeral fever virus (BEFV)						++	Culicoides/Culicidae	No	Yes	No	Cattle, water buffalo	Yes
Cache Valley virus (CVV)						+	Culicidae	No	Yes	No	Small ruminants, deer, cattle, horses,	Yes
Crimean-Congo hemorrhagic fever virus (CCHFV)						+++	Ixodidae	Yes	Yes	Yes	Ruminants	Mostly asymptomatic
Leishmania infantum						+++	Phlebotominae	Yes	Yes	Yes	Dogs	Yes
Schmallenberg virus (SBV)						++	Culicoides	Yes	Yes	No	Ruminants	Yes
Shuni virus (SHUV)						+	Culicoides/Culicidae	No	Yes	Yes	Cattle, horse, sheep	Yes
St. Louis encephalitis virus (SLEV)						++	Culicidae	No	Yes	Yes	Birds	Yes
Trypanosoma vivax (TSE-TSE)						+	Glissinidae, Tabanidae, Stomoxys	No	Yes	No	Ruminants, horses	Yes
Tick-borne encephalitis virus (TBEV)						+++	Ixodidae	Yes	Yes	Yes	Ruminants	Yes
Vesicular Stomatitis virus (VSV)						+++	Culicoides/Culicidae /Phlebotominae	No	Yes	Yes	Ruminants, Horses, Pigs	Yes

REPORT 1:

THE DISEASES

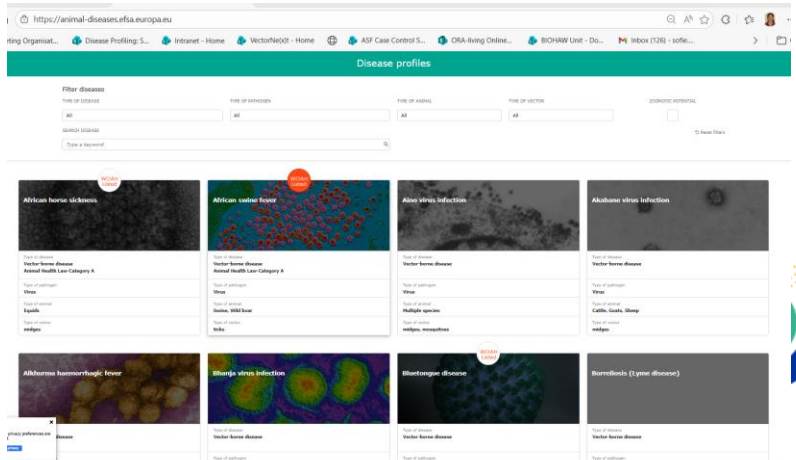
1. VBD REPORT: 25 VBD FACTSHEETS

Term of Reference (TOR) 1.1: providing a **structured overview of the main characteristics of vector-borne diseases (VBDs)**

TOR 1.1	Questions addressed
Disease overview	What type of pathogen causes the diseases? Is it listed in the EU AHL?
Agent	Taxonomy
Geographic distribution	Is the pathogen present in the EU? What is known about global distribution?
Animal hosts	Which animals are main hosts? Clinical signs? Morbidity/mortality? Zoonotic status?
Transmission	Through which transmission routes can VBD agents be transmitted?
Diagnostic tests	Which diagnostic tests are available? What is their performance
Vaccination	Which vaccines are used worldwide? Approved in EU?
Treatments	Specific treatments for affected animals?

Methodology agreed in protocol:

- 7 SLR reviews carried out for disease profiles (DP)
- Narrative summary in 25 fact sheets
- Online updated information in Disease profiles



1. VBDs REPORT: 25 VBD FACTSHEETS

Table 1. Vector borne diseases that met the eligibility criteria to be included in TOR 1.

	Disease -agent	Listed disease*	Data availability**	Vector group	Pathogen present in EU	Vector(s) present in EU	Zoonotic potential	Main amplifying hosts	Dead-end hosts	Clinical signs in animals
1	African Horse Sickness Virus (AHSV)	A, D, E	+++	Culicoides	✗	✓		Equids		✓
2	Akabane virus (AKAV)		+++	Culicoides	✗	✓		Domestic ruminants		✓
3	*Besnoitia besnoiti* (B. besnoti		+	*Stomoxys*, Tabanidae[M]	✓	✓		Cattle		✓
4	Bluetongue virus (BTV)	C, D, E	+++	Culicoides	✓	✓		Ruminants, camelids	Dogs	✓
5	*Borrelia burgdorferi* (B. burgdorferi)		+++	Ixodidae	✓	✓		Wide host range, rodents, birds	Dogs horses, humans	✓
6	Bovine ephemeral fever virus (BEFV)		++	Culicoides	✗	?		Cattle		✓
7	Cache Valley virus (CVV)		+	Culicidae	✗	✓		Deer	Ruminants, horses, humans	✓
8	*Coxiella burnetii* (C. burnetii)	E	+++	Ixodidae	✓	✓		Wide host range, ruminants	Humans	✗

- Sections that will be **updated annually** for each VBD:
  - Geographic distribution (maps)
  - Susceptible hosts
  - Clinical signs
  - Diagnostic test accuracy
- Other (more static) sections
  - Disease overview
  - Agent
  - Treatments vaccination> mitigation report
  - Transmission >vector report

AFRICAN HORSE SICKNESS

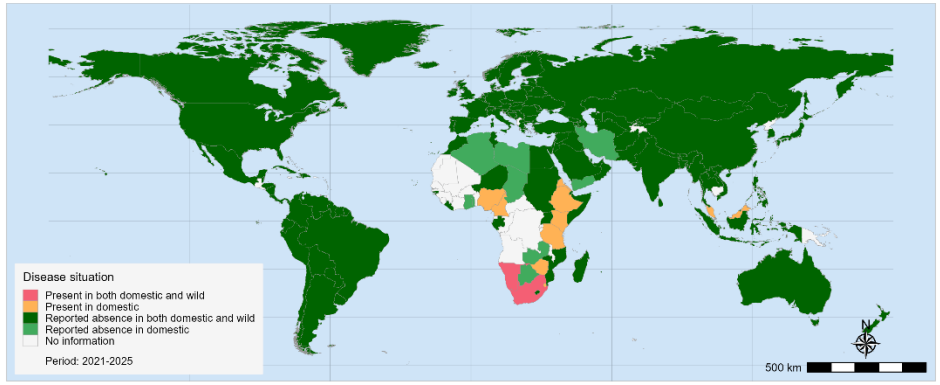


Figure 1. Geographical distribution of AHSV detected events (2021-2025), as reported to WOAH.

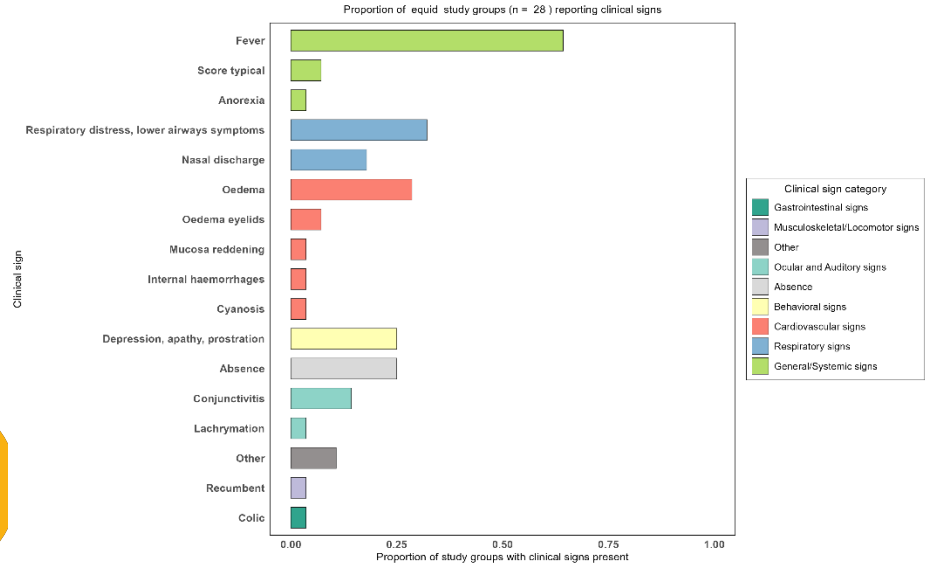


Figure 2. Clinical signs reported in equids for AHSV

The main hosts of AHSV are equids, however, other susceptible species have been identified in the SLR, with the summary provided in Table 1.

Table 1. Susceptible host species of African horse sickness virus

The systematic literature review reported in the AHSV disease profiles, identified the following susceptible species (updated until 31/12/2025, references see Annex A)
FIELD **Epidemiological studies carried out in the field** • **Pathogen was detected in the following animal species:** • Equidae: *Equus caballus, Equus quagga* • Canidae: *Canis lupus familiaris* • **Antibodies were detected in the following animal species:** • Equidae: *Equus caballus, Equus africanus asinus* • Canidae: *Canis lupus familiaris* **Outbreaks reported to WOAH included the following species:** • Equidae: *Equus quagga*
EXPERIMENTS • **Experimental studies demonstrated infection in:** • Equidae: *Equus caballus, Equus africanus asinus*

AFRICAN HORSE SICKNESS

Table 2. Median sensitivity and specificity of tests to detect AHSV/AHSV antibodies

Target	Test	Species	Specificity	N animal groups	Sensitivity	N animal groups	References
Antigen	ELISA	Horse	100%	3	100%	3	Rubio et al., 1998
Nucleic acid	Real Time RT-PCR	Horse	99.9%	1	97.8%	1	Guthrie et al., 2013
Virus	Virus isolation	Horse	100.0%	1	72.1%	2	Guthrie et al., 2013; Laviada et al., 1992
Antibody	Blocking ELISA	Horse	98.5%	2	99.2%	6	Durán-Ferrer et al., 2019
Antibody	Competitive ELISA (C-ELISA)	Horse	100%	3	100%	4	Rubio et al., 1998; Hamblin et al., 1992; Kweon et al., 2003
Antibody	ELISA	Horse	100%	3	100%	3	Rubio et al., 1998
Antibody	Sandwich ELISA	Horse	100%	1	97.4%	1	El Hasnaoui et al., 1998
Antibody	Immunofluorescence Assay	Ass	83.3%	1	98.0%	1	El Hasnaoui et al., 1998
Antibody	Immunofluorescence Assay	Horse	83.3%	1	98.0%	1	Laviada et al., 1992

REPORT 2:

THE VECTORS

2. VECTOR REPORT: UPDATE

Term of Reference (TOR) 1.2: providing a **knowledge-mapping** of **vectors competent to transmit vector-borne diseases (VBDs)**

TOR 1.2	Questions addressed
1.2.1	Which arthropod species are **likely competent vectors** with evidence of transmitting any of the 25 VBDs?
1.2.2	What is the **geographic distribution** in the EU and neighbouring countries of likely arthropods species?

Methodology agreed in protocol:

- 2 Systematic Literature Reviews (SLR) on **vector competence**
  - Field studies: pathogen detection in vectors
  - Laboratory studies: transmission experiments
- 1 living systematic literature review on **geographic distribution** of vector species

BIOLOGICAL TRANSMISSION

Arthropod species	AHSV	BTV	EHDV	AKAV	BEFV	SBV	VSV
C. chiopterus						*	
C. fulvus		*					
C. imicola		*		*		*	
C. insignis			*				
C. nubeculosus						*	
C. obsoletus						*	
C. obsoletus complex[1]	*	**	*			**	
C. obsoletus group[2]	*	**	*			***	
C. obsoletus s.l.	*	*	*				
C. orientalis		*				D	
C. oxystoma		*		*			
C. pulicaris		*				*	
C. obseletus/scoticus	*	*	*				
C. sonorensis		**	*		*	*	**
C. tainanus		*		*			

*	1-2 studies		No data or did not fit SLR criteria
**	3-4 studies		Potential vector
***	≥ 5 studies		Highly likely vector

Vectors status/competence classification using SLR results

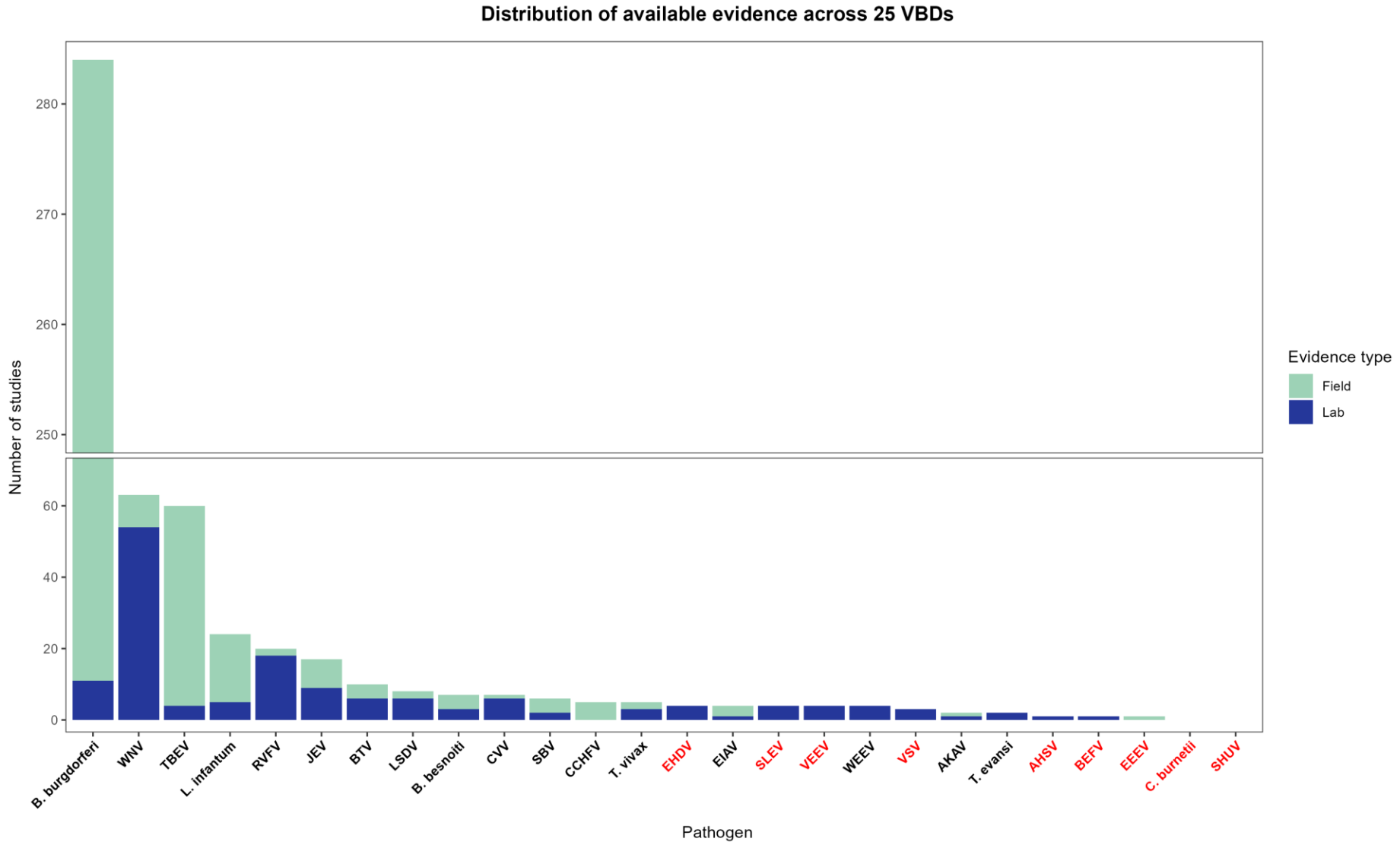
Biological transmission

- Potential = field detection OR laboratory detection
- Highly likely = field AND laboratory

Mechanical transmission

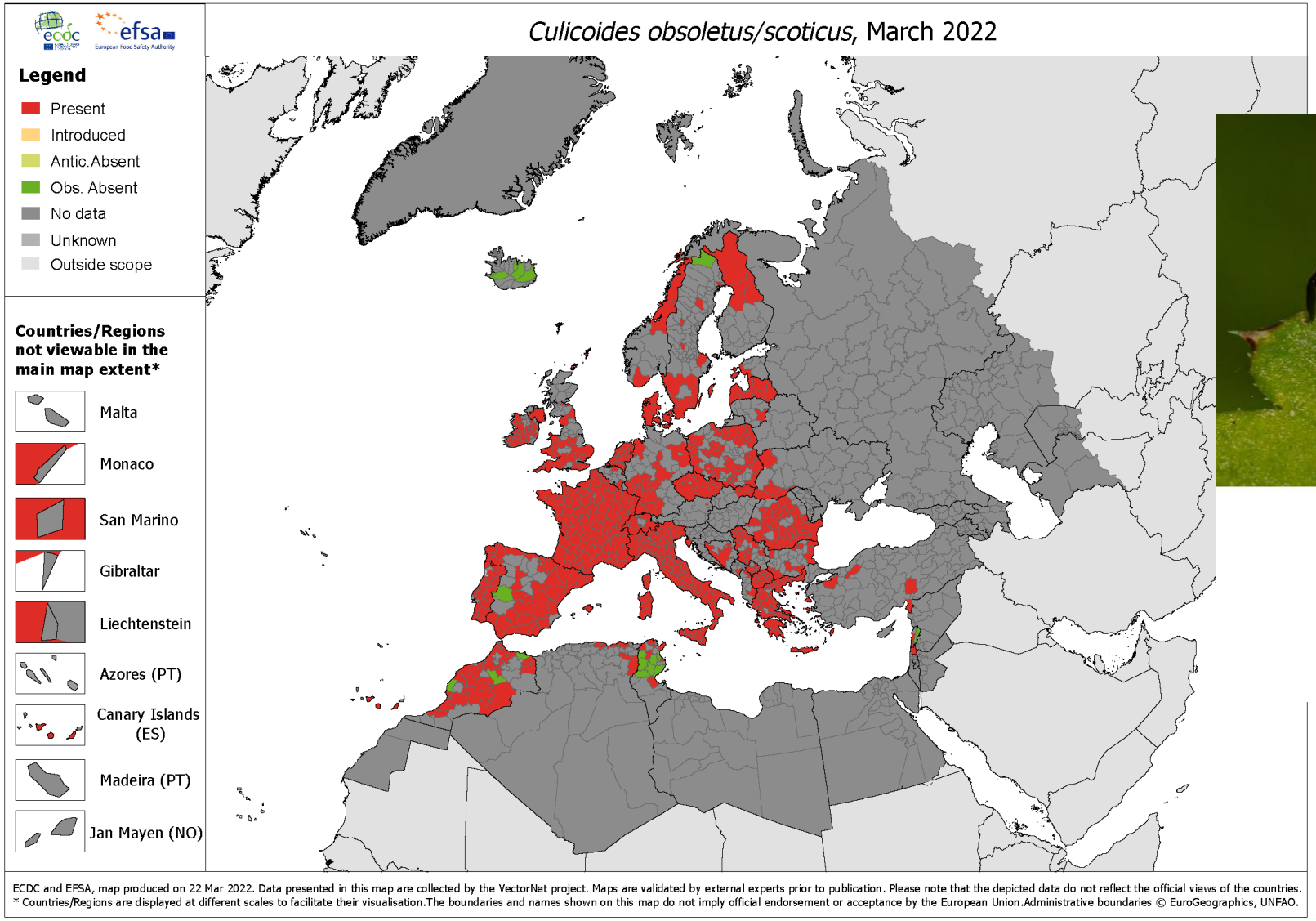
- Potential = field detection
- Highly likely = Laboratory confirmation of transmission

AVAILABLE EVIDENCE ON VECTOR COMPETENCE



*Pathogens in red required expert opinion

GEOGRAPHICAL DISTRIBUTION



ecdc
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

efsa

TAKE HOME MESSAGE OF VECTOR REPORT

- **Evidence is uneven across the 25 vector-borne diseases.**
  Research is heavily concentrated on few pathogens (Lyme borreliosis, West Nile virus, tick-borne encephalitis).
- **Strong evidence identifies highly likely vectors for several major diseases.**
  Including bluetongue, Japanese encephalitis, leishmaniasis, Rift Valley fever, Schmallenberg, West Nile, *B. burgdorferi*, and tick-borne encephalitis.
- **Potential vectors identified for multiple additional pathogens.**
  For diseases such as St. Louis encephalitis, epizootic haemorrhagic disease, African horse sickness, Akabane virus, and Q fever, evidence comes from either field data or lab studies, but not both.
- **Vector distribution maps are widely available.**
  Existing geographical maps cover the EU and neighbouring regions, supporting surveillance planning and spatial risk assessment.
- **Significant evidence gaps remain.**
  For many pathogens, experimental data are limited or absent, requiring expert judgement and reducing certainty in vector classification.
- **Key barriers to better evidence.**
  High biosafety requirements, limited understanding of field transmission for some pathogens, and insufficient methodological reporting in studies

REPORT 3:

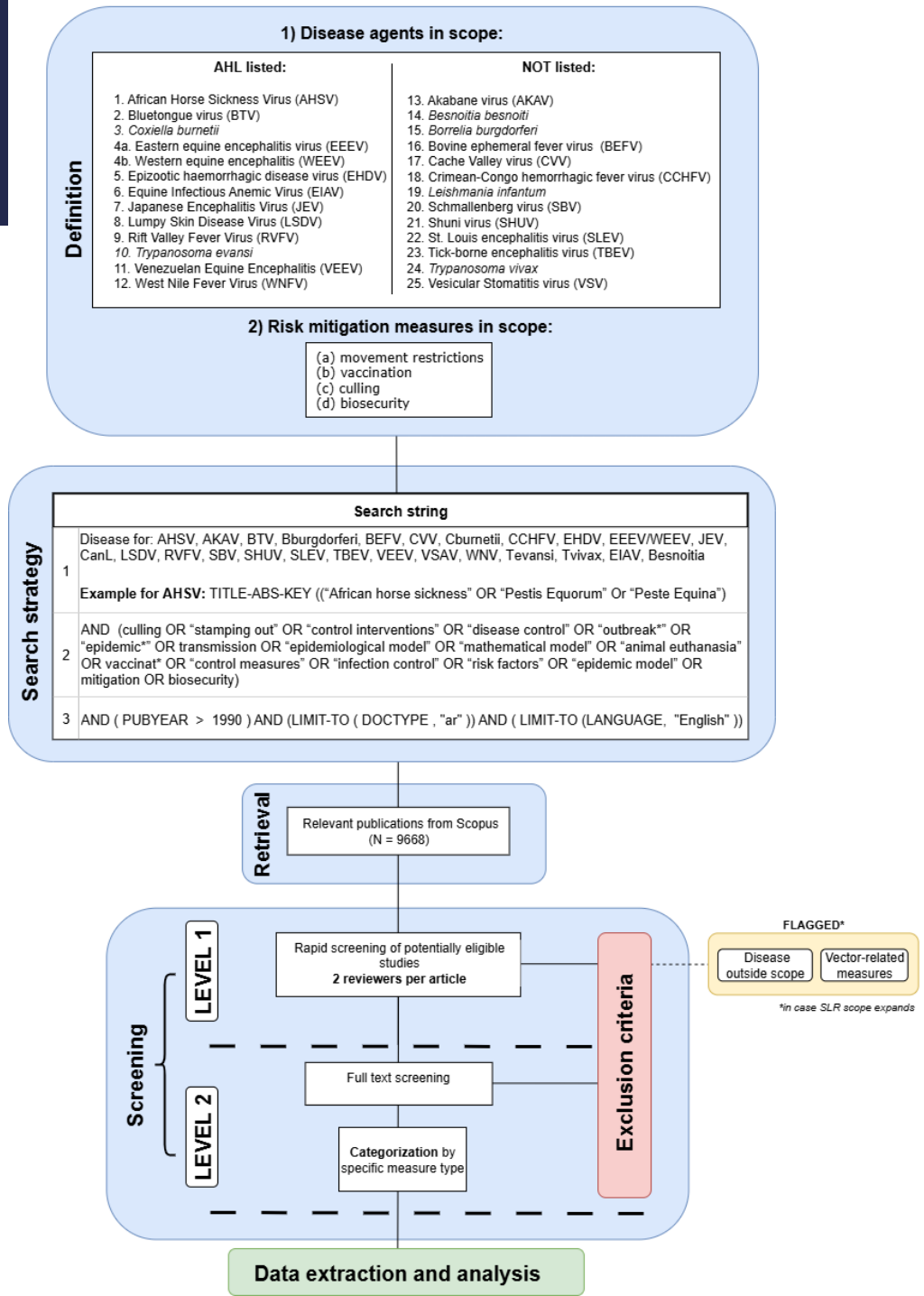
MITIGATION MEASURES

3. MITIGATION MEASURES REPORT

Term of Reference (TOR) 1.3: providing a **state-of-the-art overview of all available**

- **Surveillance**
- **Prevention and control measures** for listed and non-listed vector-borne diseases (VBDs)

TOR 1.3	Questions addressed
Movement restrictions	What is the **effectiveness** of movement restritions to reduce spread of any of the 25 VBDs?
On-farm biosecurity	What is the **effectiveness** of on-farm biosecurity measures to reduce spread of any of the 25 VBDs?
Culling	What is the **effectiveness** of culling to reduce the spread of each of the 25 VBDs?
Vaccination	What is the **effectiveness** of host vaccination to reduce the incidence of any of the 25 VBDs
Medical treatments	What is the **effectiveness** of host vaccination to reduce the incidence of any of the 25 VBDs



REPORT 4:

PATHWAYS

4. PATHWAYS REPORT: UPDATE

Term of Reference (TOR) 1.4: outlining the **pathways** how vector-borne diseases (VBDs), whether already present in the EU or not, could be introduced into free EU MSs.

TOR 1.4	Question
1.4.1 pathways related to vector movement	*Which **pathways** are potentially relevant for introduction of the 25 VBDs related to:* - ***Active** movement of competent vectors* - ***Passive** movement of competent vectors*
1.4.2 non-vectorial pathways	*Which animal species are **hosts** of the 25 VBDs?*
	*Which **pathways other than vectors movement** can be relevant for introduction/spread of 25 VBDs?*
	*Which **matrices can possibly contain infectious disease** agents for the 25 VBDs?*

- **Methodology agreed in protocol:**
  - Extensive literature reviews
    - Non-vectorial pathways: Supporting document has been delivered by **LORA** consortium
    - Vector pathways: Supporting Document has been delivered by **VectorNet**

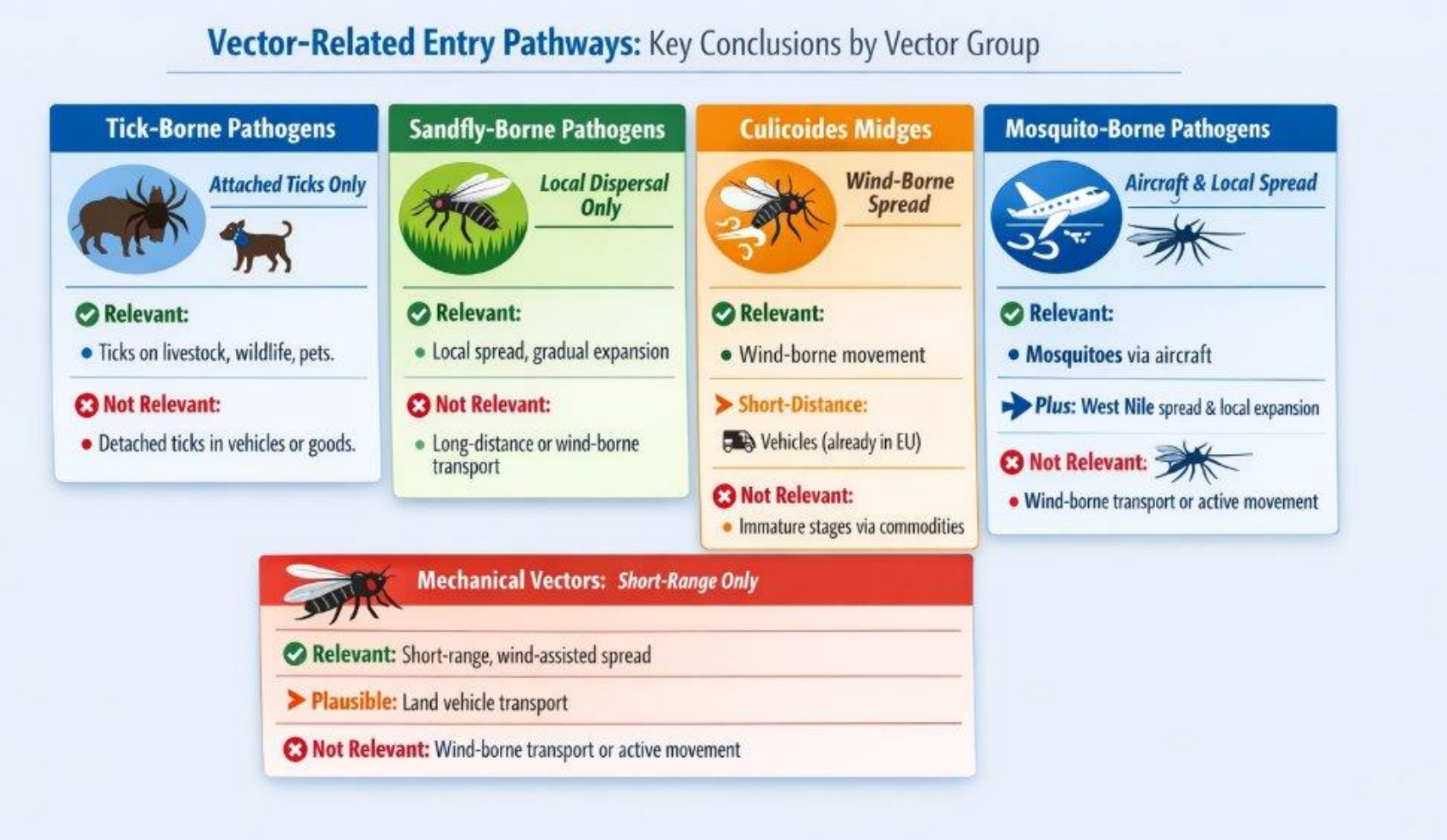
PATHWAY CLASSIFICATION

- Vector-related pathways
  - Naturally occurring pathways
    - Active movement of vectors
      - Range expansion
      - Local dispersal
    - Passive movement of vectors
      - Wind dispersal
      - On wild hosts
  - Human mediated
    - Vector in vehicle space (air/maritime /land)
    - Vector in- or on commodities (livestock/pts/plants/soil/tires)
- Not-vector related pathways
  - Live animal movements
    - Livestock, pets
    - Wildlife
  - Germinal products
    - Germplasm
    - Fertilised eggs
  - Products of animal origin (POAO
    - Meat/offal
    - Milk/colostrum
    - Hides
    - ...

VECTOR ENTRY PATHWAYS

		Vector group	T	T	T	T	Sf	C	C	C	C	C	C	C	C/M	M	M	M	M	M	M	M	M	Bf	Bf	Bf	Bf	Bf
		Pathogen:	Lyme	Q-fever	CCHFV	TBEV	CanL	AHSV	AKAV	BTV	BEFV	EHDV	SBV	VSV	SHUV	CVV	EEEV	JEV	RVF	SLEV	VEEV	WNV	WEEV	EIAV	LSD	SURRA	T. vivax	Besno
Natural	Active	Natural range	o	o	o	o	●	o	o	●	o	●	●	o	o	o	o	o	o	o	o	●	o	o	●	o	o	●
		Local	o	o	o	o	●	o	o	●	o	●	●	o	o	o	o	o	o	o	o	●	o	o	●	o	o	●
	Passive	Wind	o	o	o	o	o	●	●	●	●	●	●	●	●	o	o	o	o	o	o	●	o	o	●	o	o	●
		Wild host	●	●	●	●	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Human-mediated	Vehicles	Air	o	o	o	o	o	o	o	o	o	o	o	o	●	●	●	●	●	●	●	●	●	o	o	o	o	o
		Water	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
		Land	o	o	o	o	o	o	o	●	o	●	●	o	o	o	o	o	o	o	o	o	o	o	●	o	o	●
	Commodities	Animal Trade	●	●	●	●	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
		Pets	●	●	o	●	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
		Plan/Tires/Soil	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

VECTOR RELATED PATHWAYS: KEY CONCLUSIONS



NON-VECTORIAL ENTRY PATHWAYS

	Vector group	T	T	T	T	S f	C	C	C	C	C	C	C	C/ M	M	M	M	M	M	M	M	M	B f	B f	B f	B f	B f
Commodity Category	Pathway	Lyme	Q-fever	CCHFV	TBEV	CanL	AHSV	AKAV	BTV	BEFV	EHDV	SBV	VSV	SHUV	CVV	EEEV	JEV	RVF	SLEV	VEEV	WNV	WEEV	EIAV	LSD	SURRA	T. vivax	Besno
Live Animal	Livestock	●	●	●			●	●	●	●	●	●	●	●			●	●		●			●	●	●	●	●
	Pets[1]					●																				●	
	Wildlife	●		●		●						●			●	●	●		●		●	●					
Germinal Product	Germplasm		●						●			●						●					●		●		
	fertilised eggs																										
POAO	products for human consumption[3]		●	●														●						●	●		
	other animal products[4]		●	●									●					●						●	●		
	Unregistered imports[5]		●	●														●						●	●		

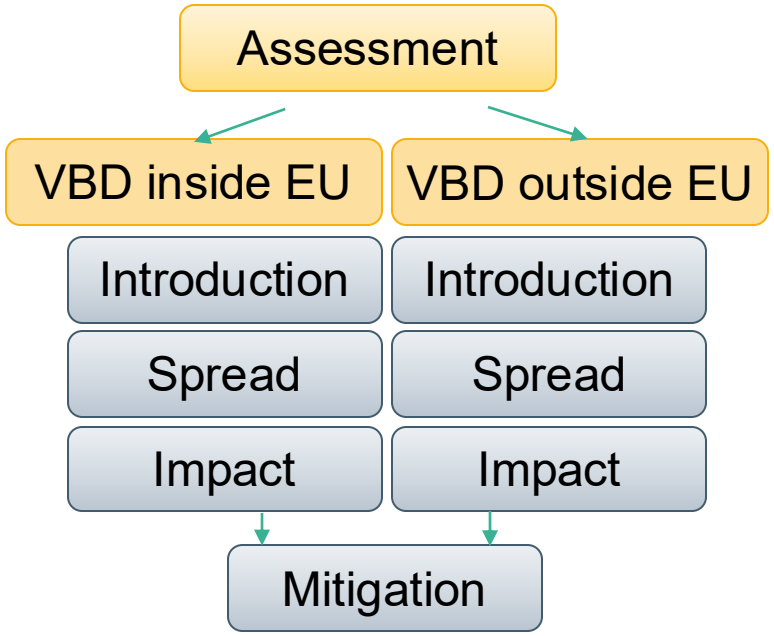
NON-VECTOR-RELATED PATHWAYS: KEY CONCLUSIONS

- **Live animal movements** are a relevant entry pathway for all pathogens except tick-borne encephalitis virus, when infected domestic or wildlife hosts enter areas with competent vectors.
- **Companion animals** may contribute to the introduction of *Leishmania infantum* and *Trypanosoma vivax*.
- The relevance of animal movements depends on the role of **species as main hosts**, not on susceptibility alone.
- **Germinal products** may represent a potential entry pathway for vector-borne diseases for which *vertical transmission* has been demonstrated, including Coxiella burnetii, bluetongue virus, Schmallenberg virus, Rift Valley fever virus, Trypanosoma evansi and equine infectious anaemia virus.
- **Products of animal origin**, such as chilled and frozen meat, processed meat, hides and dairy products, may constitute relevant entry pathways for a limited number of pathogens, notably *C. burnetii,* Crimean–Congo haemorrhagic fever virus, lumpy skin disease virus and *T. evansi*.

OPINION 1:

RISK ASSESSMENT

TOR 2: RISK ASSESSMENT 25 VBDS



Deadline:
31/12/2026

2.1. Assess the probability of introduction (i.e., the probability of entry, exposure and transmission to local host) of listed and not listed VBD-agents into free EU MSs, considering the relevant pathways identified in 1.4.

2.2. Assess the extent of spread of listed and not listed VBDs in the previously free EU MSs, after local transmission has taken place.

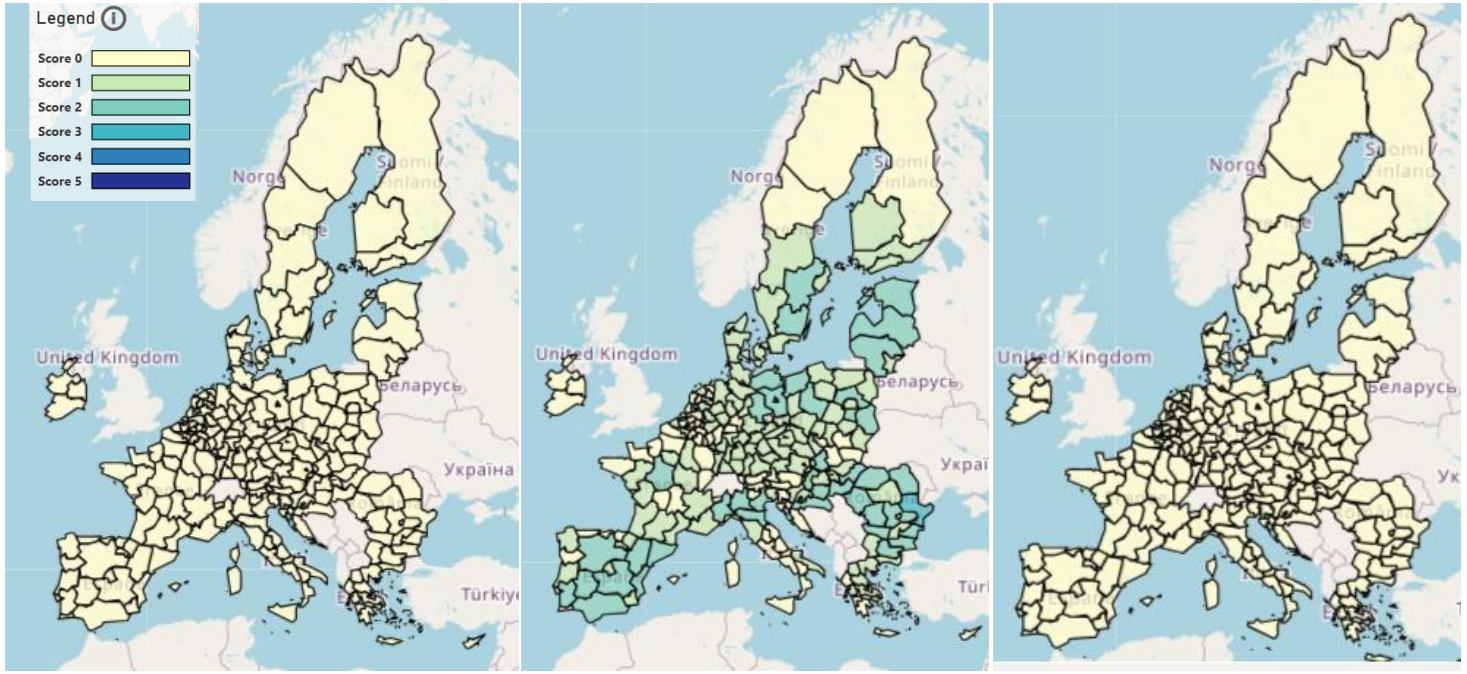
2.3. Assess the impact of the introduction and potential further spread of of listed and not listed VBD-agents during one year after the introduction.

2.4. Critically assess the effectiveness of the currently available risk mitigation measures for VBDs in the EU, in particular different biosecurity and surveillance systems, regionalisation, and vaccination tools; and

2.5. Assess the need for the development of these and further measures within the EU, notably to enable safe intra-EU movements of animals from affected or non-affected areas

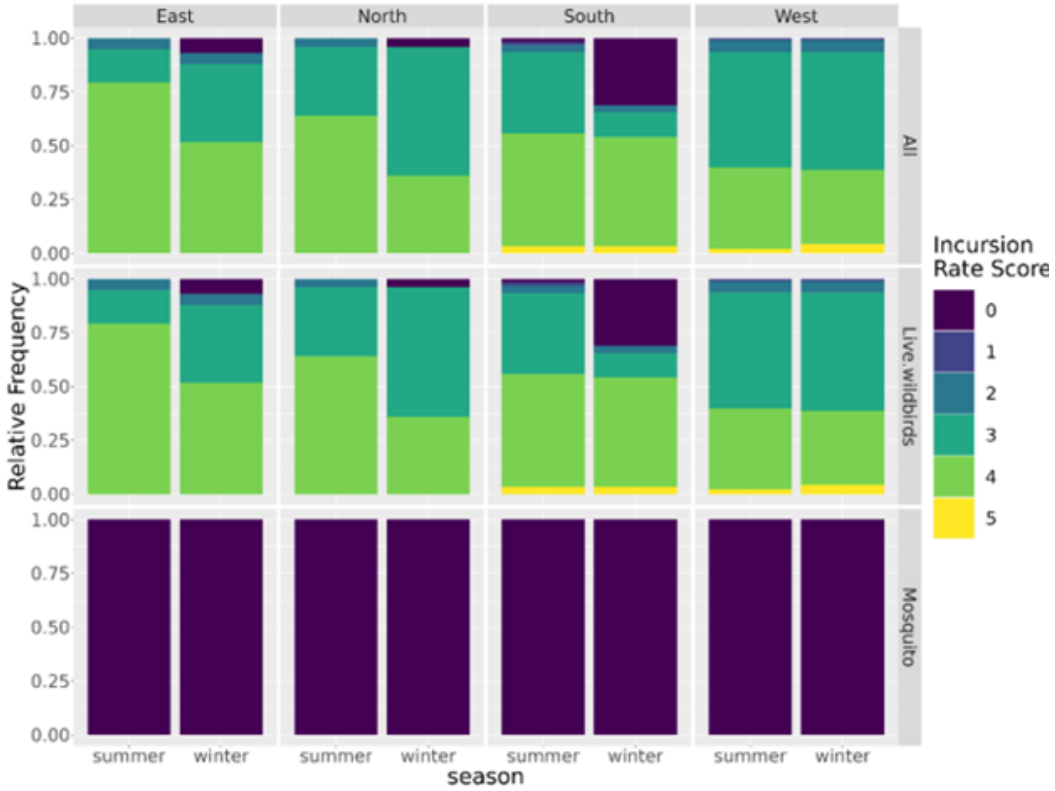
INTRODUCTION

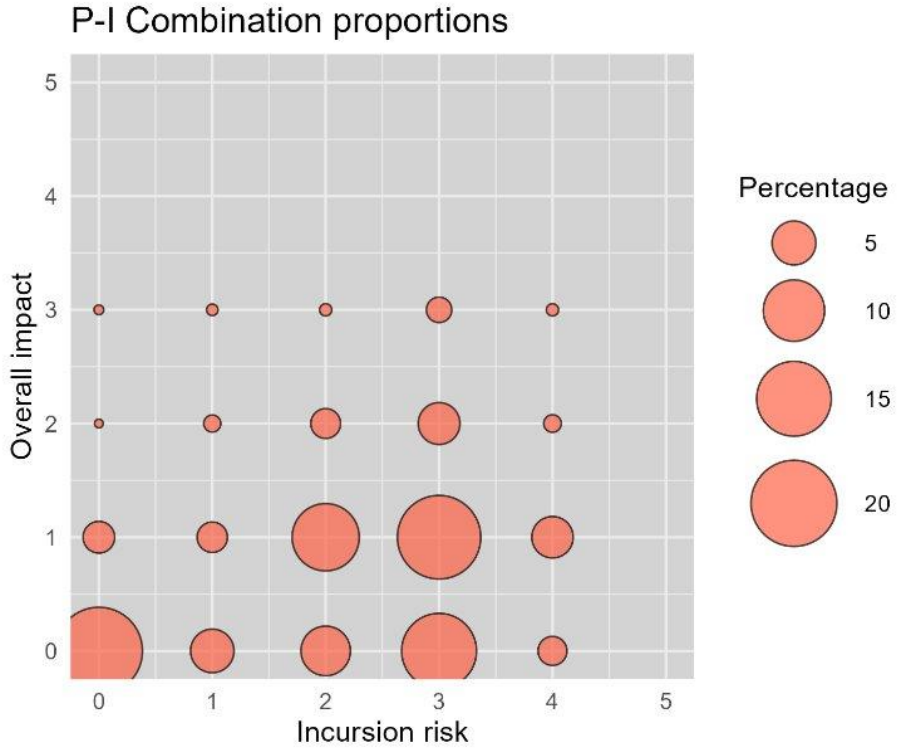
- Maps will show the annual **incursion rate** (sum of all months) per NUTS2 region per VBD.



Risk for JEV introduction in August 2023 via vectors (A); wild birds (B); Movements live animals (C)

INTRODUCTION AND IMPACT





- Proportion of EU NUTS2 areas with an **incursion rate** score of 0, 1, 2, 3, 4 and 5 of WNV during summer and winter

OPINION 2:

MITIGATION MEASURES

TOR 2.4-2.5: ASSESSMENT OF MITIGATION MEASURES

- Critically **assess the currently available risk mitigation** measures for VBDs in the EU, in particular different biosecurity and surveillance systems, regionalisation, and vaccination tools; and
- Assess the **need for the development of these and further measures** within the EU, notably to enable safe intra-EU movements of animals from affected or non-affected areas.

Deadline:
31/12/2026

FOCUS ON

- 1. Measures foreseen by the law (AHL listed VBDs), their effectiveness in minimizing the risk of introduction, occurrence and spread
- 2. If not regulated (not listed-VBDs), which rules or tools could be suggested
- 3. When rules or tools are not available, what could be developed
    - E.g. DIVA tests or DIVA vaccines if not available

PROPOSED WORKFLOW

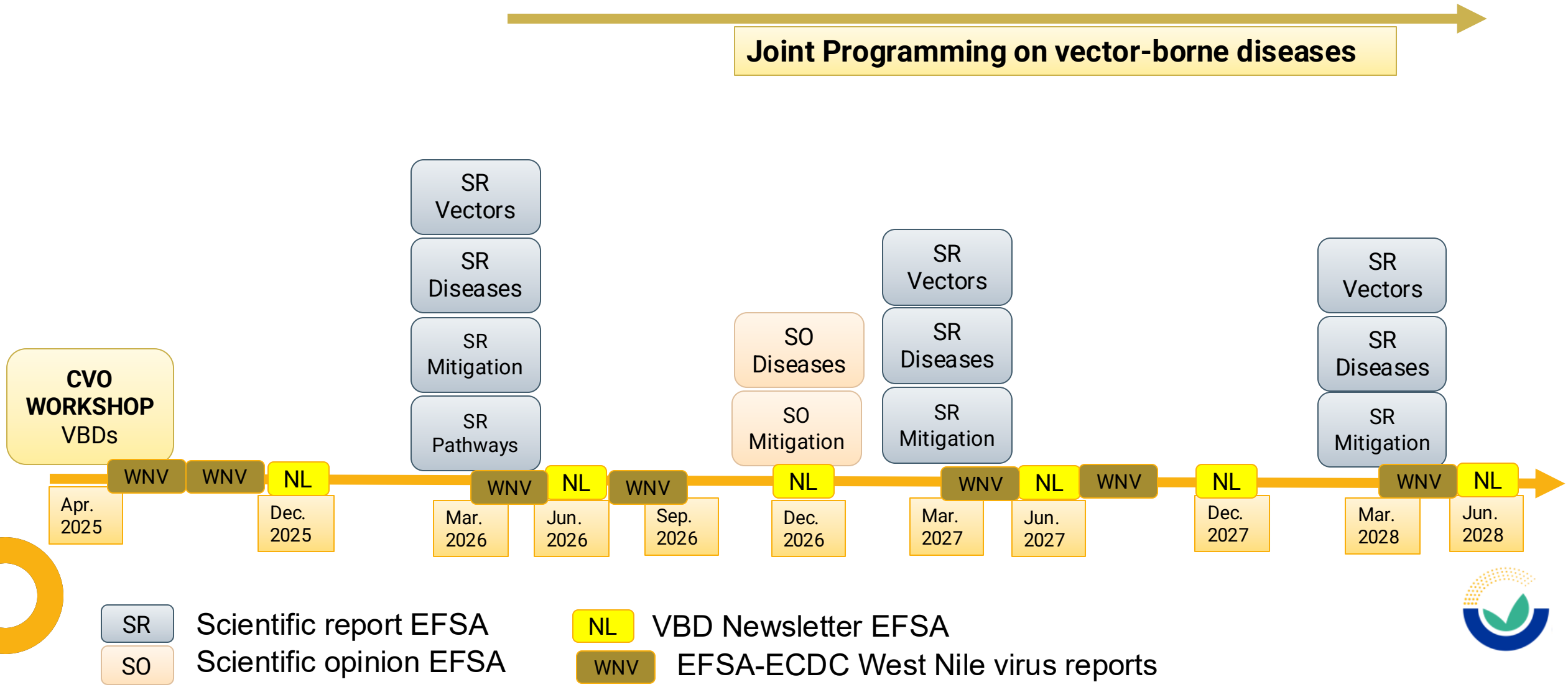
Define an assessment framework:

- Define **epidemiological scenarios** for each disease/ group or diseases
- Define **objectives** for the mitigation measures in each scenario (for surveillance and control measures)
- Define **control measures** for each disease
- **Evaluate effectiveness** of each measures in each scenario/objective and of measures combination (*methodology to be agreed*)
- **Compare** the effectiveness assessed with what foreseen in the Regulation and discuss **what should be added**/done differently

EPIDEMIOLOGICAL SCENARIOS AND OBJECTIVES

epidemiological scenario	risk of introduction	disease occurrence (outbreak or flare up)		endemicity	
Objectives for surveillance	early detection	case detection	evaluation of extent of spread	case detection	prevalence estimation
Objective for control	Prevention of introduction	confine spread	eradicate	reduce spread and (..) impact	eradicate

TIMELINE


Joint Programming on vector-borne diseases
CVO WORKSHOP VBDs
Apr. 2025
WNV
WNV
NL
Dec. 2025
SR Vectors
SR Diseases
SR Mitigation
SR Pathways
Mar. 2026
WNV
NL
Jun. 2026
WNV
Sep. 2026
SO Diseases
SO Mitigation
Dec. 2026
NL
SR Vectors
SR Diseases
SR Mitigation
Mar. 2027
WNV
NL
Jun. 2027
WNV
Dec. 2027
NL
SR Vectors
SR Diseases
SR Mitigation
Mar. 2028
WNV
NL
Jun. 2028
SR Scientific report EFSA
SO Scientific opinion EFSA
NL VBD Newsletter EFSA
WNV EFSA-ECDC West Nile virus reports

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