

# One Health Surveillance in Animals and the Environment

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### Outline

- Existing EU framework for OH
- EU4Health WP 2022
- Coordination and timeline



## Existing EU framework for OH



## Existing EU framework for OH

# COUNCIL DIRECTIVE of 26 June 1964 on animal health problems affecting intra-Community trade in bovine animals and swine (64/432/EEC) (OJ 121, 29.7.1964, p. 1977/64)



DG SANTE PRODUCTION CONCENTRATION CONCENTRAT

Animal Health Law legal framework

ANIMAL HEALTH LAW
Regulation (EU) 2016/429

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- Research
- Co-funding
- Eradication programmes (e.g. rabies)
- Food-borne zoonoses
- •



## EU4Health WP 2022

CP-g-22-04.01 Direct grants to Member States' authorities: setting up a coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union <a href="https://ec.europa.eu/assets/sante/health/funding/wp2022\_en.pdf">https://ec.europa.eu/assets/sante/health/funding/wp2022\_en.pdf</a>



### Financial support: EU4Health

2021-2027 – a vision for a healthier European Union

With €5.3 billion budget the EU4Health programme is an unparalleled EU financial support in the health area



Four overarching strands:

- Crisis preparedness;
- Health promotion & disease prevention;
- Health systems & healthcare workforce;
- Digital;



### Financial support: EU4Health

**EU4H WP 2021** – included surveillance activities

 COMMUNICABLE DISEASES – SURVEILLANCE AND EARLY DETECTION with the objective of fostering an integrated surveillance systems at Union and national level





#### OBJECTIVES, SCOPE AND ACTIVITIES



- support to Member States' authorities to contribute to the setting and scaling up of this animal and environmental surveillance system
- systematic ongoing collection & assessment of data by EFSA in coordination with ECDC

#### OBJECTIVES, SCOPE AND ACTIVITIES

- surveillance system for emerging and re-emerging zoonotic pathogens in
  - animals and the environment
  - Member States and third countries



#### OBJECTIVES, SCOPE AND ACTIVITIES

 capacity building in MS based on identified surveillance priorities and risks identified by EFSA/ECDC assessment



#### Pilot MS joining the initiative will need to:

- 1. identify the **sample collection modalities** (using existing sampling schemes or setting up new ones with a novel One Health approach);
- 2. carry out the **diagnostic procedures** (incorporating the equipment acquired as well as improved techniques);
- 3. organise the national data collection, collation and national data sharing;



#### Pilot MS joining the initiative will need to:

- 4. carry out a preliminary **national assessment** (across animal and public health and the environment in a One Health approach) in order to identify national risks and priorities for the future;
- 5. address residual **capacity building** needs not fully addressed in year one including awareness campaigns/events;
- 6. share data with EFSA and actively contribute to the yearly re-prioritisation exercise of EFSA/ECDC aimed at identifying the current and future health risks for the Union. This will contribute to the redesign of the surveillance system for the following year.

#### **Budget**:

Total envelope EU4H: **20 MIL EUR over 3 years** (co-financing principle of 60% or 80%)

Type of applicants targeted: Member States' authorities



## Promote Synergies

This action should build on and be in coordination with the actions carried out by the EC on human health surveillance, based on the report on "Lessons learnt from COVID-19 surveillance and other epidemics on integrated and real-time of surveillance in the EU/EEA" and on the Joint Action on Integrated surveillance, including the setting – up of human and animal health data integration [under the 2021 work programme (AWP 2021 - CP-g-02.1.1)]



## Coordination and timeline



## Risk Assessment by **EFSA**

#### SANTE provided a mandate to **EFSA** till 2026 to:

- Perform risk assessment to define surveillance priorities and modalities in coordination with ECDC and MS
- Collect data from MS every year
- Carry out updated risk assessments
- Foster the iterative process



#### OH Surveillance

**assessment** (refer to the full report for contextualising this information) -

Figure 3 Host populations and suggested surveillance components for each of the prioritized diseases which are not vector-borne. Domestic populations are shaded in purple, wild populations in green and humans in brown. The shading gradient represents disease progression and indicates on which stages surveillance may focus

Non vector-borne diseases   Ruminants   Surveillance component not eligible for funding (focus on food safety)			GENERAL	EXPOSED POPULATIO	INFECTE	INFECTIO	SYMPTOUS	GP/VD VISIT	DEAD	Component name
Echinococcus granulosus  Dogs  Adult parasite detection in domestic dogs  Adult parasite detection in wild canids  Human  Dogs  Rodents  Wildife (foxes, racoon dogs)  Human  Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Wildlife (wild boar, deer)  ENVIRONMENT  Poultry  Pathogen detection in hunted wildlife - Surveillance component not siligible for funding (focus on food safety)  Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Poultry  Pathogen detection in filtuents from farms and abattoirs in high-risk sites in high-risk seasons  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting burnan were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  Surveillance components targetting human were not in scope  No surveillance components targetting human were not in scope  Surveillance components targetting human were not in scope  Surveillance components targetting human were not in scope  Poultry  Pathogen detection and genetic characterization in pigs with clinical signs	Non vector-borne	diseases								
Echinococcus granulosus  Dogs  Wild canids  Human  Dogs  Rodents  Wildlife (foxes, racoon dogs)  Human  Pigs  Wildlife (wild boar, deer)  ENVIRONMENT  Human  Poultry  Wildlife (wild birds and mammals)  Wildlife (wild birds and mammals)  Poultry  Wildlife (wild birds and mammals)  Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  No surveillance components specifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance component specifically designed, as measures already covered under AHL and Union Surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  No Surveillance components targetting human were not in scope  No surveillance component specifically designed, as measures already covered under AHL and Usp provide flexibility to MS to include several components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  No surveillance components targetting human were not in scope  Pathogen detection in slaughter pigs - Surveillance tomponent not eligible for funding (focus on food safety)  Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Pathogen detection in slaughter pigs - Surveillance tomponents aready all the surveillance programmes  No surveillance components argetting human were not in scope  No surveillance component specifically designed, as already covered under AHL and USP  Surveillance components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs		Ruminants								
Branulosus   Dogs	Echinococcus	Wild ruminants						Ш		No surveillance component specifically designed
Human  Dogs Rodents Wildlife (foxes, racoon dogs) Human  Pathogen detection in pigs breeding stock Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Pathogen detection in hunted wildlife - Surveillance component not eligible for funding (focus on food safety)  ENVIRONMENT  Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  Poultry  Poultry  No surveillance components targetting human were not in scope  No surveillance components pacifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance components pecifically designed, as measures already covered under AHL and USP provide flexibility to MS to include several components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Pigs  Pathogen detection in pigs with clinical signs		Dogs						Ш		Adult parasite detection in domestic dogs
Echinococcus multilocularis    Dogs   Rodents   Wildlife (foxes, racoon dogs)   Human		Wild canids								Adult parasite detection in wild canids
Rodents   Wildlife (foxes, racoon dogs)   Human   Pathogen detection in pigs breeding stock   Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)   Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)   Pathogen detection in hunted wildlife - Surveillance component not eligible for funding (focus on food safety)   Pathogen detection in effluents from farms and abattors in high-risk sites in high-risk seasons   Pathogen detection in effluents from farms and abattors in high-risk sites in high-risk seasons   Surveillance components targetting human were not in scope   Poultry   No surveillance component specifically designed, as already covered under AHL and Using provide flexibility to MS to include several components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP Provide flexibility to MS to include several components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP Provide flexibility to MS to include several components already - if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP Provide flexibility to MS to include several components already carried out under the OH grant, it should not duplicate actions already carried out under AHL and USP Provide flexibility to MS to include several components already carried out under the OH grant, it should not duplicate actions already carried out under AHL and USP Provide flexibility to MS to include several components already carried out under AHL and USP Provide flexibility to MS to include several components already carried out under AHL and USP Provide flexibility to MS to include several components already carried out under AHL and USP Provide flexibility to MS to include several componen		Human								Surveillance components targetting human were not in scope
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Member States' authorities"    Pathogen detection in pigs breeding stock	Echinococcus	Rodents						$\sqcup$	_	Not aligible for funding in the initiative "CP.g.22.04 01 Direct grants to
Pathogen detection in pigs breeding stock  Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Wildlife (wild boar, deer)  ENVIRONMENT  Pathogen detection in hunted wildlife - Surveillance component not eligible for funding (focus on food safety)  Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  Human  Surveillance components targetting human were not in scope  No surveillance component specifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance component specifically designed, as measures already covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs										
Pathogen detection in slaughter pigs - Surveillance component not eligible for funding (focus on food safety)  Pathogen detection in hunted wildlife - Surveillance component not eligible for funding (focus on food safety)  ENVIRONMENT  Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  Buman  Poultry  Poultry  Poultry  No surveillance component specifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance component specifically designed, as measures already covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs		Human								
Hepatitis E  Wildlife (wild boar, deer)  ENVIRONMENT  Pathogen detection in hunted wildlife - Surveillance component not eligible for funding (focus on food safety)  Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  Human  Poultry  Poultry  No surveillance components targetting human were not in scope under AHL and Union Surveillance programmes  No surveillance component specifically designed, as already covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs		Pigs								Pathogen detection in slaughter pigs - Surveillance component not
Pathogen detection in effluents from farms and abattoirs in high-risk sites in high-risk seasons  Human  Poultry  Poultry  No surveillance components targetting human were not in scope  No surveillance component specifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance component specifically designed, as measures already covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs	Hepatitis E						Г	$\prod$	$\exists$	Pathogen detection in hunted wildlife - Surveillance component not
Poultry  No surveillance component specifically designed, as already covered under AHL and Union Surveillance programmes  No surveillance component specifically designed, as measures already covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs		ENVIRONMENT								Pathogen detection in effluents from farms and abattoirs in high-risk
HPAI  Wildlife (wild birds and mammals)  Wildlife (		Human								Surveillance components targetting human were not in scope
Wildlife (wild birds and mammals)  Covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL and USP  Human  Surveillance components targetting human were not in scope  Pathogen detection and genetic characterization in pigs with clinical signs		Poultry								
INFLUENZA IN  SWINF  Pigs  Pathogen detection and genetic characterization in pigs with clinical signs	HPAI									covered under AHL and USP provide flexibility to MS to include several components already – if such surveillance is to be undertaken under the OH grant, it should not duplicate actions already carried out under AHL
INFLUENZA IN Pigs signs		Human								Surveillance components targetting human were not in scope
Human Surveillance components targetting human were not in scope		Pigs								
	SANIAE	Human								Surveillance components targetting human were not in scope



#### OH Surveillance

**assessment** (refer to the full report for contextualising this information) -

Figure 4 Host populations and suggested surveillance components for the vector-borne prioritized diseases. Domestic populations are shaded in purple, wild populations in green, vectors in yellow and humans in brown. The shading gradient represents disease progression and indicates on which stages surveillance may focus

Link to EFSA report: <a href="https://doi.org/10.2903/j.efsa.2023.7882">https://doi.org/10.2903/j.efsa.2023.7882</a>

VECTOR-Dorne dis	eases						
	Ruminants						Serological surveillance of domestic ruminants in high-risk areas
Crimean Congo	Wild ruminants						Serological surveillance of wild ruminant in high-risk areas
	Hare						No surveillance component specifically designed
							Pathogen detection in ticks collected from domestic ruminants in high-risk areas
Hemorrhagic Fever (CCHF)	Hyalomma						Pathogen detection in ticks collected from wild ruminants in high-risk areas
	marginatum						Pathogen detection in ticks collected from <i>migratory birds</i> in high- risk areas and seasons
							Surveillance of ticks in areas at <i>risk of introduction</i> and establishment of the vector
	Human						Surveillance components targetting human were not in scope
	Dogs						Serological surveillance of dogs in high-risk areas
	Wild birds						No surveillance component specifically designed
1345-5-	Rodents						No surveillance component specifically designed
BORRELIOSIS	Ixodes ricinus						Pathogen detection in ticks in high-risk areas where the vector is endemic
							Pathogen detection in ticks collected from rodents in high-risk areas
	Human						Surveillance components targetting human were not in scope
	Ruminants						Serological surveillance of small ruminants can be used to identify high risk areas (to target other activities)
Q-FEVER						1	Indicator-based surveillance of abortions in ruminants
	Ticks				9		No surveillance component specifically designed
	ENVIRONMENT		Ш	4			Environmental sampling in high-risk areas
	Human						Surveillance components targetting human were not in scope
Rift Valley Fever (RVF)	Ruminants						Indicator-based surveillance of abortions and increased mortality in young stock in ruminants
							Bulk milk surveillance in ruminants in high-risk areas and season
	Mosquitoes						Pathogen detection in mosquitoes in areas of introduction risk
	Human						Surveillance components targetting human were not in scope
	Ruminants						Serological surveillance in domestic ruminants in high-risk areas
Tick-borne	Wild and and						Pathogen detection in raw milk samples from domestic ruminants in high-risk areas
encephalitis	Wild ruminants				$\sqcup$		No surveillance component specifically designed
(TBE)	Rodents			$\vdash$	$\sqcup$		No surveillance component specifically designed
	Ixodes ricinus						Pathogen detection in ticks in high-risk areas
	Human						Surveillance components targetting human were not in scope
	Equidae						Clinical surveillance in Equidae (horses and donkeys) in endemic areas
WEST NILE FEVER (WNF)	Domestic birds						Sentinel surveillance in chickens
	Wild birds						Pathogen detection in wild birds with neurological symptoms or sudden death
	Mosquitoes						Pathogen detection in mosquitoes in endemic areas
	iviosquitues						Pathogen detection in mosquitoes in non-endemic areas bordering to endemic ones
	Human						Surveillance components targetting human were not in scope

#### OH Surveillance

**assessment** (refer to the full report for contextualising this information) -

**Figure 5** Host populations and suggested surveillance components **for Disease Y**. Domestic populations are shaded in purple, wild populations in green, vectors in yellow and humans in brown. The shading gradient represents disease progression and indicates on which stages surveillance may focus

		GENERAL	EXPOSED	INFECTED	INFECTIO	SYMPTON	GPANDING	DEAD	Component name
Disease X	Human								Surveillance components targetting human were not in scope
	Livestock								Detection of new infectious agent causing disease (Disease Y) in livestock
	Companion animals								Detection of new infectious agent causing disease (Disease Y) in companion animals
Disease Y	Exotic animals								Detection of new infectious agent causing disease (Disease Y) in exotic animals
	Wildlife								Detection of new infectious agent causing disease (Disease Y) in wildlife
	Effluents and waste water								Detection of new infectious agent (Disease Y) in effluents and wastewater

Link to EFSA report: <a href="https://doi.org/10.2903/j.efsa.2023.7882">https://doi.org/10.2903/j.efsa.2023.7882</a>



## Management of the grants with MS

HaDEA will lead the management of the grants

- 23 MS applied
- Assessment
- Signatures by the end of 2023



## Provisional timeline of CP-g-22-04.01 next milestones:

15 Dec 2022 HaDEA opens call for proposals

Jan 2023

EFSA identification of surveillance modalities with support of ECDC & MS

15 March 2023 Deadline for MS to Submit to HaDEA proposals

End 2023

Signature of grants and start of 3 y surveillance activity

Jan 2024

Start of capacity building and surveillance activities by MSs



## Thank you



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