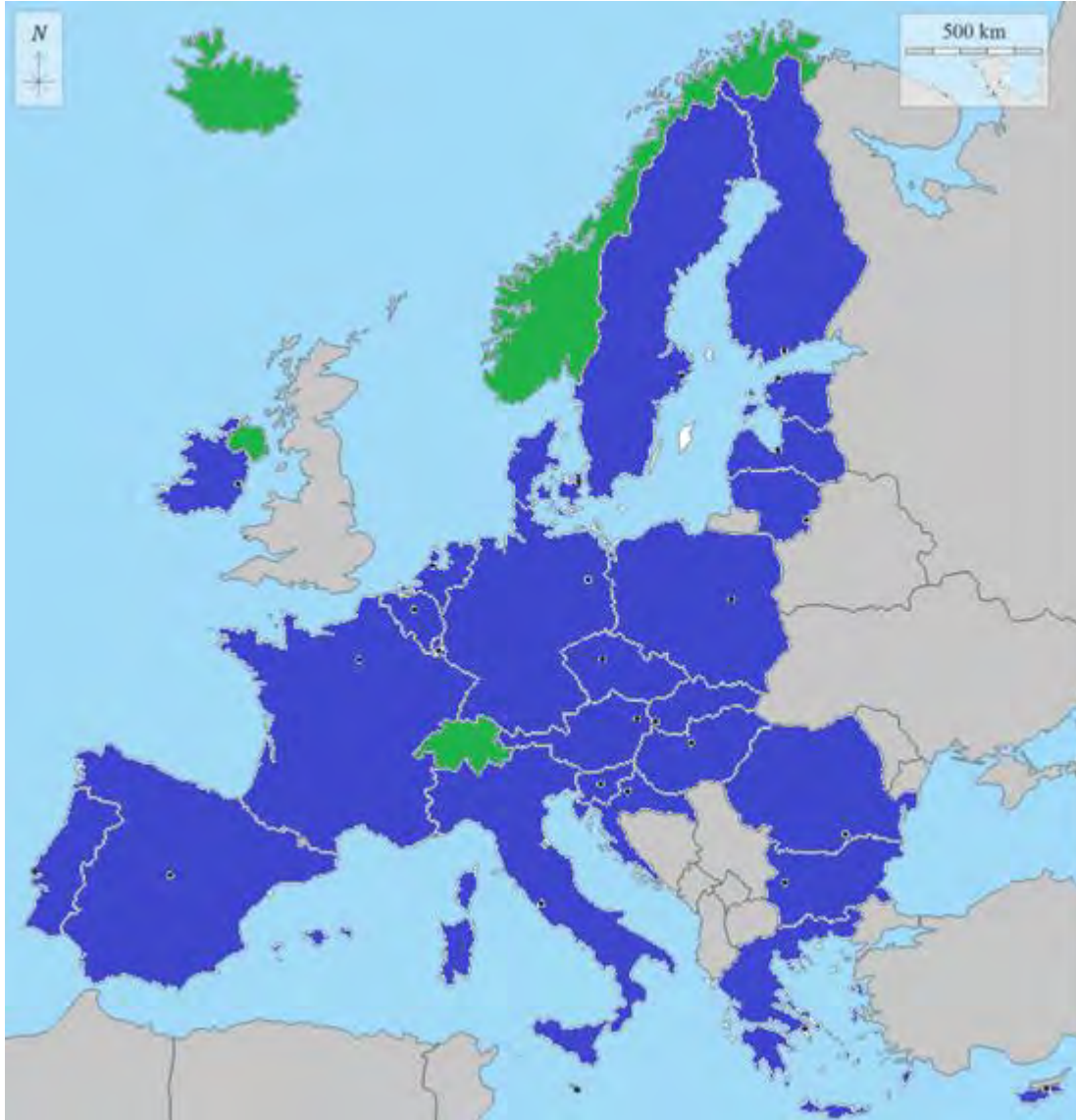


AHW.A.06.EFSA

AVIAN INFLUENZA SURVEILLANCE 2022

Gabriele ZANCANARO / Scientific Officer
BIOHAW unit
Animal Health Team

REPORTING COUNTRIES



REPORTING COUNTRIES

- 27 Member States
- Iceland, Norway, Switzerland & UK (Northern Ireland)



POULTRY

22,171 poultry establishments (PEs *) visited

- 18,490 serological tests → 15 (0.08%) A(H5) sero-positive
 - 2 PCR HP
 - 1 PCR LP (H5N3)
 - 12 PCR neg

- 3,755 virological tests → 74 (1.96%) viro-positive A(H5)

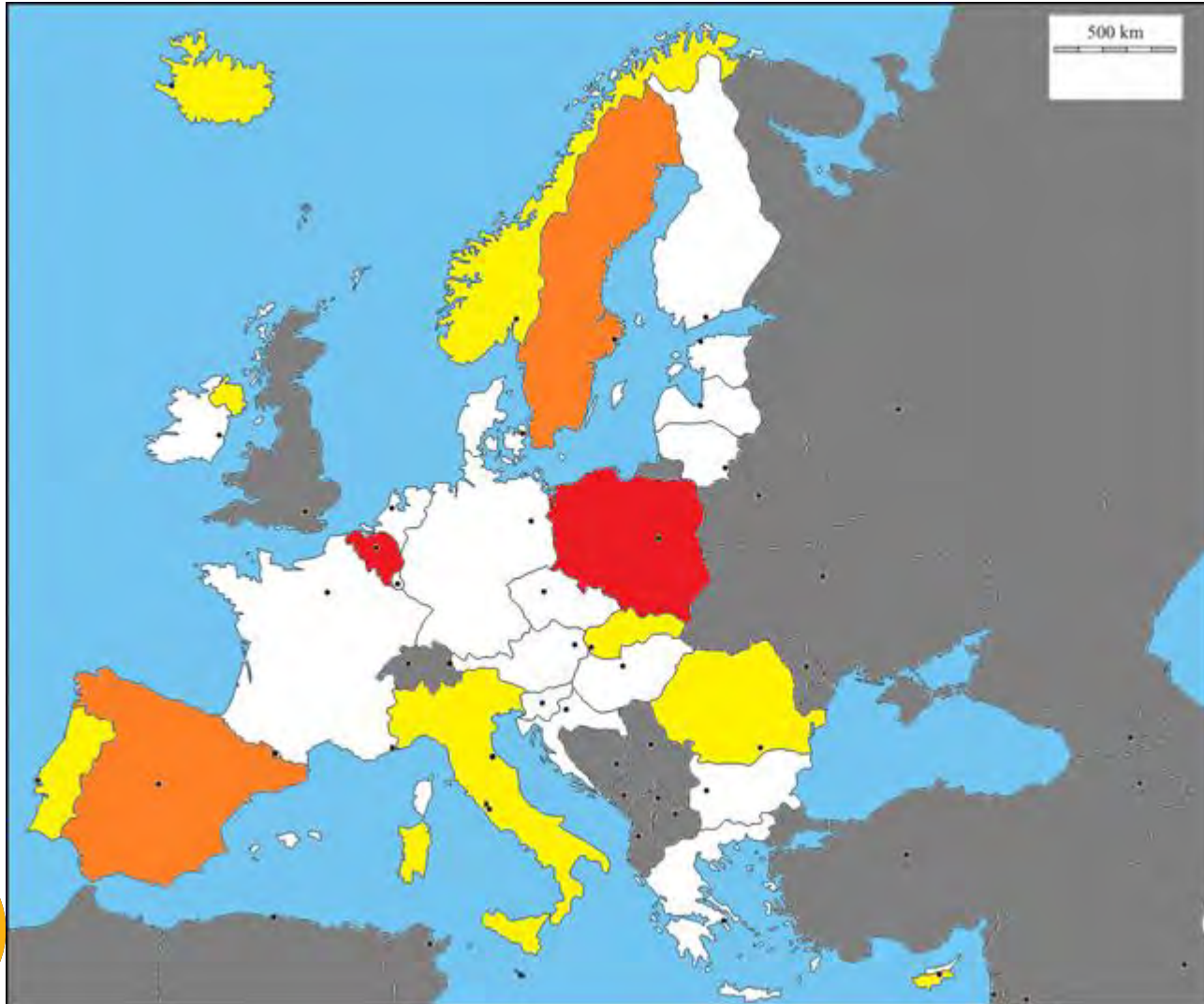
- (94 PE tested with serological & virological tests)



- 54 HP A(H5N1)
- 17 HP A(H5N8)
- 2 ?P A(H5N1)
- 1 LP A(H5N3)



POULTRY



Serology (red)

- Breeding geese
- Waterfowl game birds
- Other...

Virology (yellow)

- 12 poultry categories

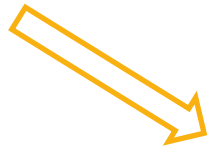
Serology & Virology (orange)



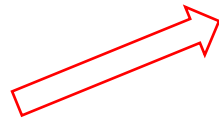
WILD BIRDS

32,143 wild birds tested

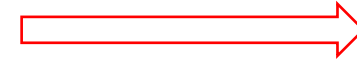
26,996
neg



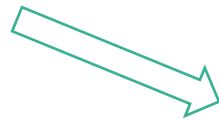
5,147
AIV pos



4,163
Highly
Pathogenic



- 3,942 A(H5N1)
- 221 A(H5)



984
Low
Pathogenic



- 660 **not**-(H5/H7)
- 260 H5 OR H7
- 64 other H-types (e.g., H10, H11, ...)





POULTRY

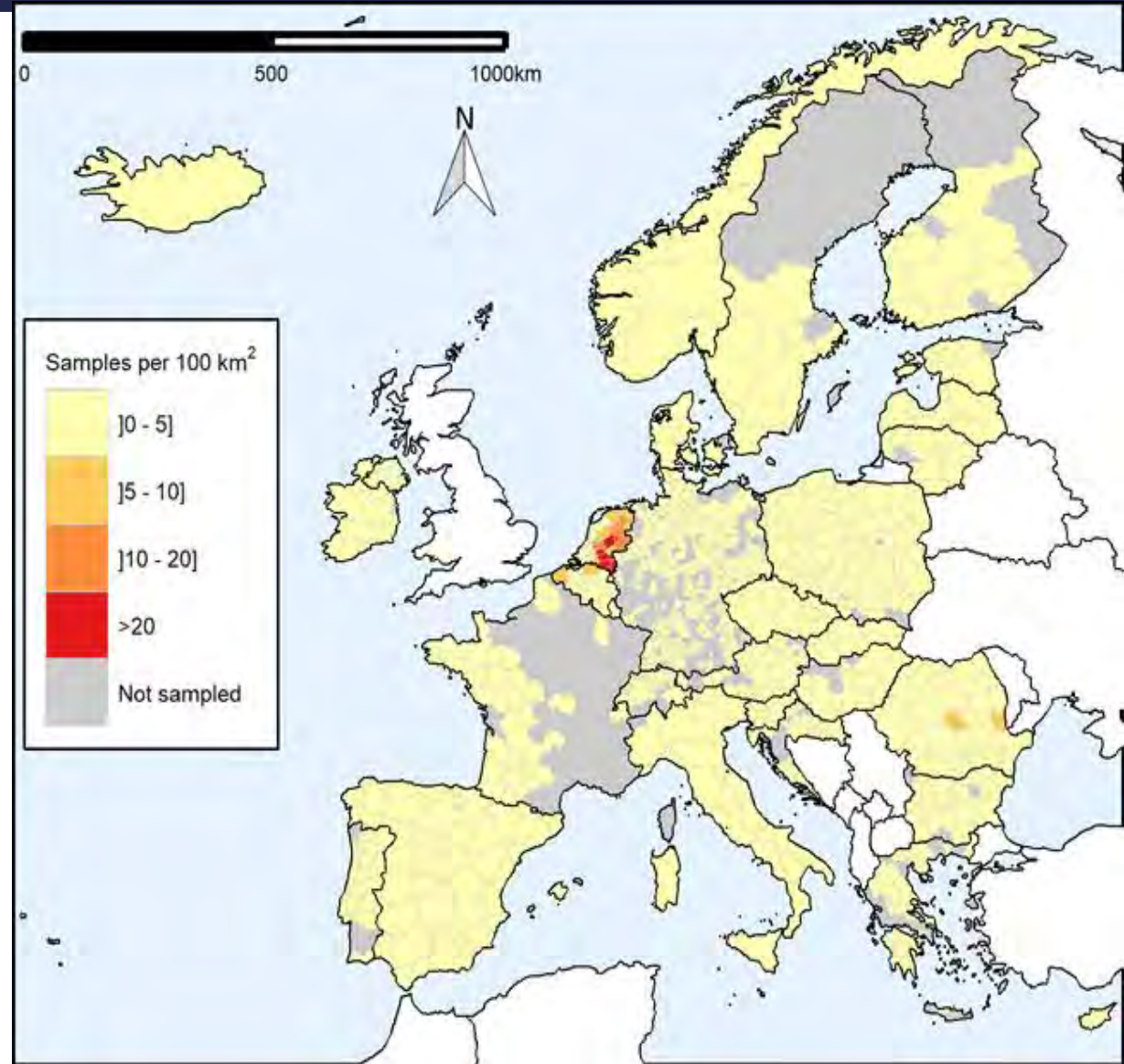


SAMPLING DENSITY

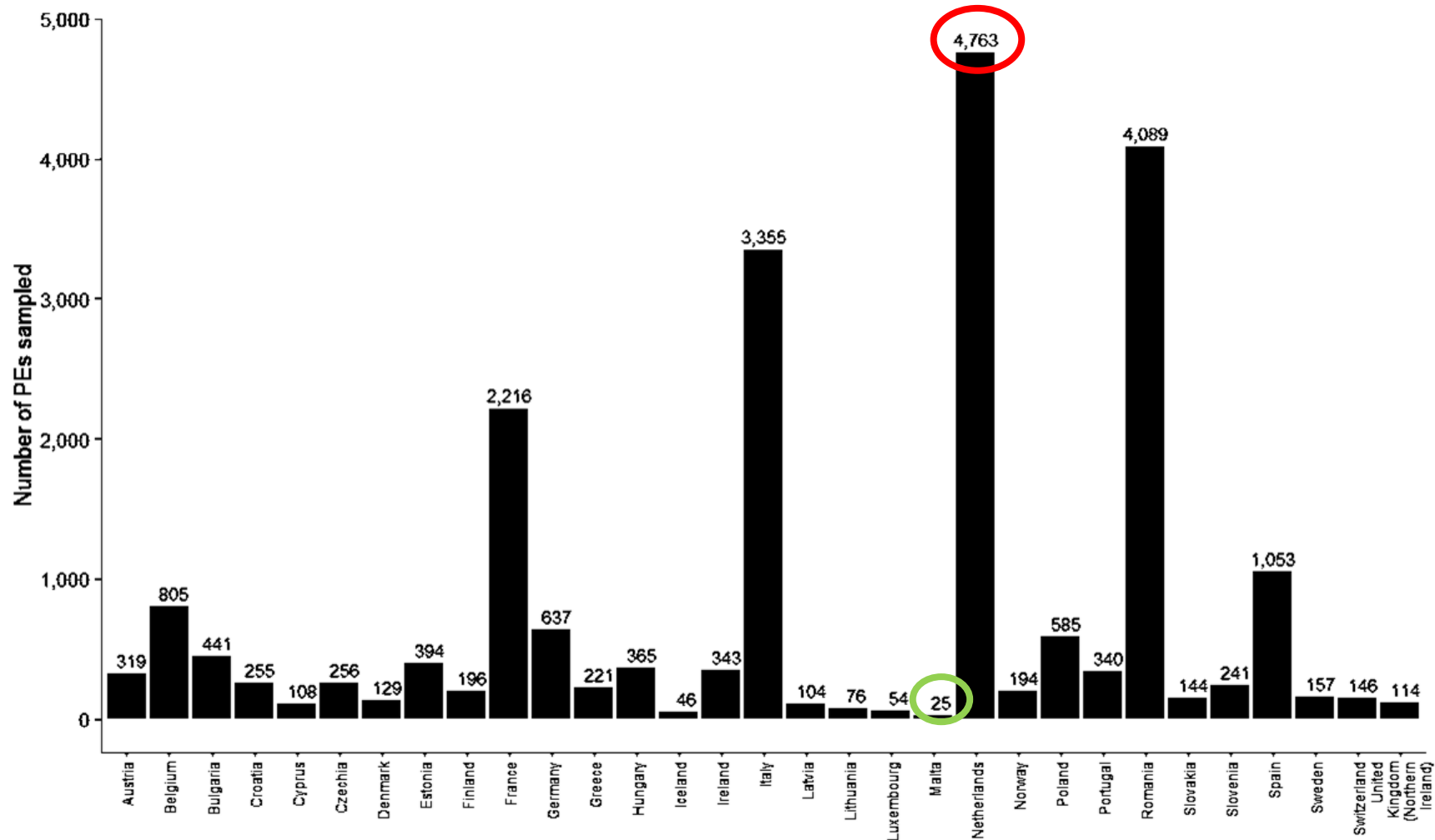
Even spatial distribution of the sampling.

Higher intensity in The Netherlands

Sampling density does **not** give information on the representativeness of the sampling



POULTRY ESTABLISHMENTS VISITED



Note: the plot represents absolute numbers of establishments visited.

To calculate the proportion of visited establishment, **the total number of establishments per country is needed.**

Starting from 2024 there is the opportunity to provide poultry population data to EFSA for scientific purposes

(SIGMA project)



POULTRY CATEGORIES - SEROLOGY

	Laying Hens	Free-Range Laying Hens	Breeding Chickens	Broilers (Heightened Risk)	Breeding Turkeys	Fattening Turkeys	Breeding Ducks	Fattening Ducks	Breeding Geese	Fattening Geese	Growers	Backyard Flocks	Game Birds Gallinaeocous	Game Birds (Waterfowl)	Ratites	Others
Austria	74	60	40			55		31		52					7	
Belgium	164	294	197			45		12				76	16			
Bulgaria	62			4								3	5			248
Croatia	39	40	15		1	13						143				
Cyprus	22	13	9	2		3						47	4			
Czechia	53	28				40				17			32			
Denmark	29		23			3										
Estonia	6												1			3
Finland	51	38	40	3	4	47			1				11	1		
Germany	59	107	17	26	8	114	12	125	8	111			36		14	
Greece	52	42	36	19	3	23					18		2			9
Hungary	78		48		17	60			22	40			20	3	11	68
Iceland	7		16		3	3								4		
Ireland	15	54	90	85	3	69	3	20					4			
Italy	570	124	164		10	404					1,801		13		12	
Latvia	35											30				35
Lithuania	18															47
Luxembourg	3	10		3											6	
Malta	24			1												
Netherlands	1,160	1,639	842	958		112	15	37								
Norway			21			26	1			1						87
Poland	79	43	61		20	60	28	86	73	87			27		16	
Portugal	118	60				67										
Romania	565		154			109						3,237	17		4	3
Slovakia	75		13		13	12							9		3	10
Slovenia	48	56	7			33		94					3			
Spain	142	62	180	8	9	58	3	39	4	14		89	224	47	1	
Sweden	50	47	31		3	15				1			1	8		
Switzerland	31	79		8		28										

The plot represents **absolute numbers** of samples taken per poultry category.



POULTRY CATEGORIES - VIROLOGY

	Laying Hens	Free-Range Laying Hens	Breeding Chickens	Broilers (Heightened Risk)	Breeding Turkeys	Fattening Turkeys	Breeding Ducks	Fattening Ducks	Breeding Geese	Fattening Geese	Growers	Backyard Flocks	Game Birds (Gallinae)	Game Birds (Waterfowl)	Ratites	Others
Belgium		1										1				
Bulgaria	12			7								1				99
Croatia							2		1							1
Cyprus				5						1						1
Czechia							27	44	8				1	7		
Denmark				6		2		19	1	4				42		
Estonia	149	199										4	5			28
Finland									1					1		
France	607		139	816	4	76	55						135		1	383
Germany						1	1						2		2	
Greece											3		14			
Iceland				1												12
Italy	2		1	27		1	9	85	6	3	1	118	3			1
Latvia																7
Lithuania	2			1											1	7
Luxembourg	7	4										22				
Malta				1												
Norway												29				29
Poland									5							
Portugal							4	42					43	6		
Slovakia			2			1						6				
Spain	28	2	22	41		53	2	23	2	3		37	23	4	3	1
Sweden														8		
United Kingdom (Northern Ireland)												111	3			

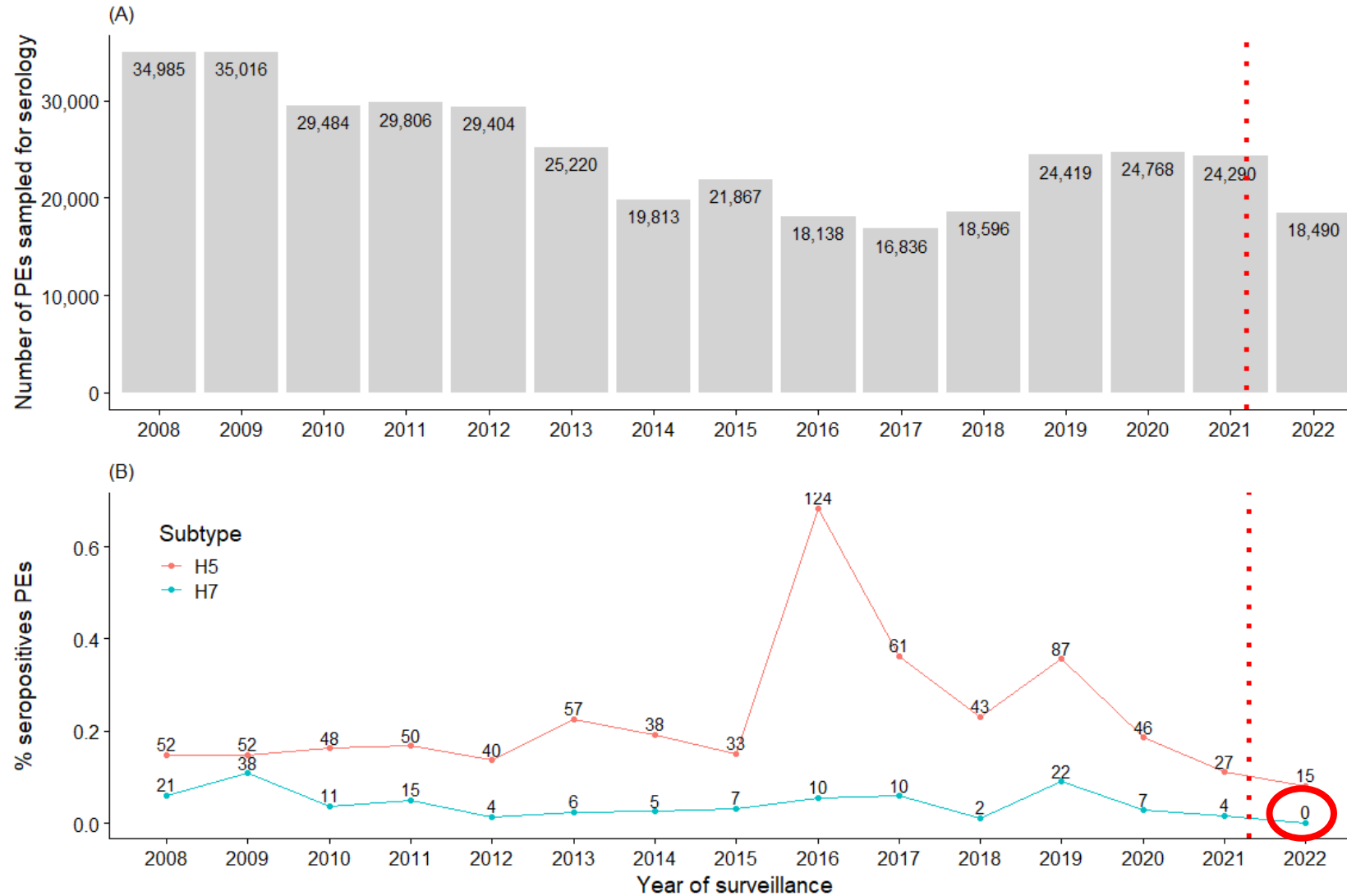
The category “other” is the most “targeted” by the countries and records the highest number of samples.

The two tables suggest an association between the methodology and the poultry category.

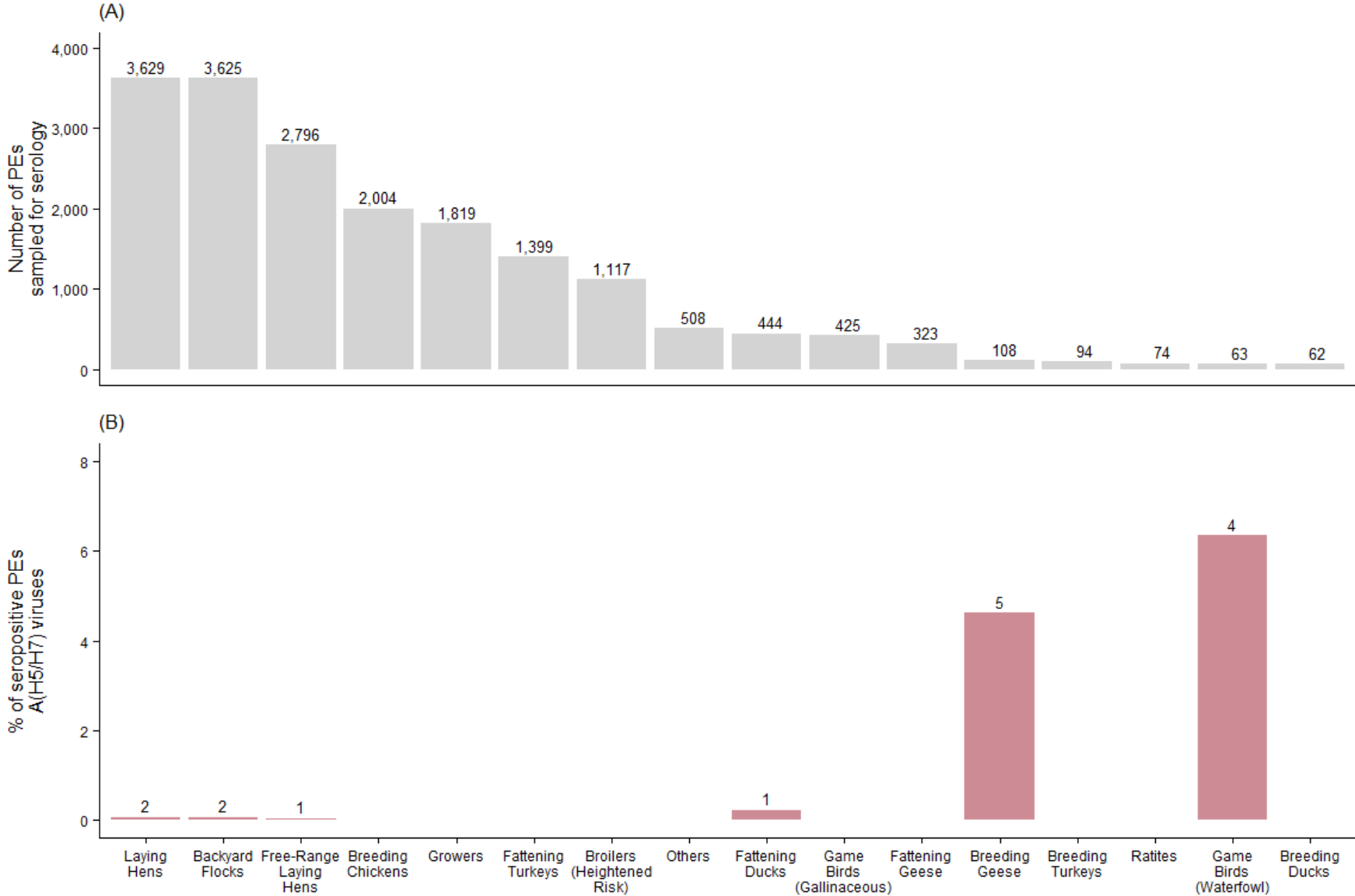
Need to capture more detailed information on the “other” category



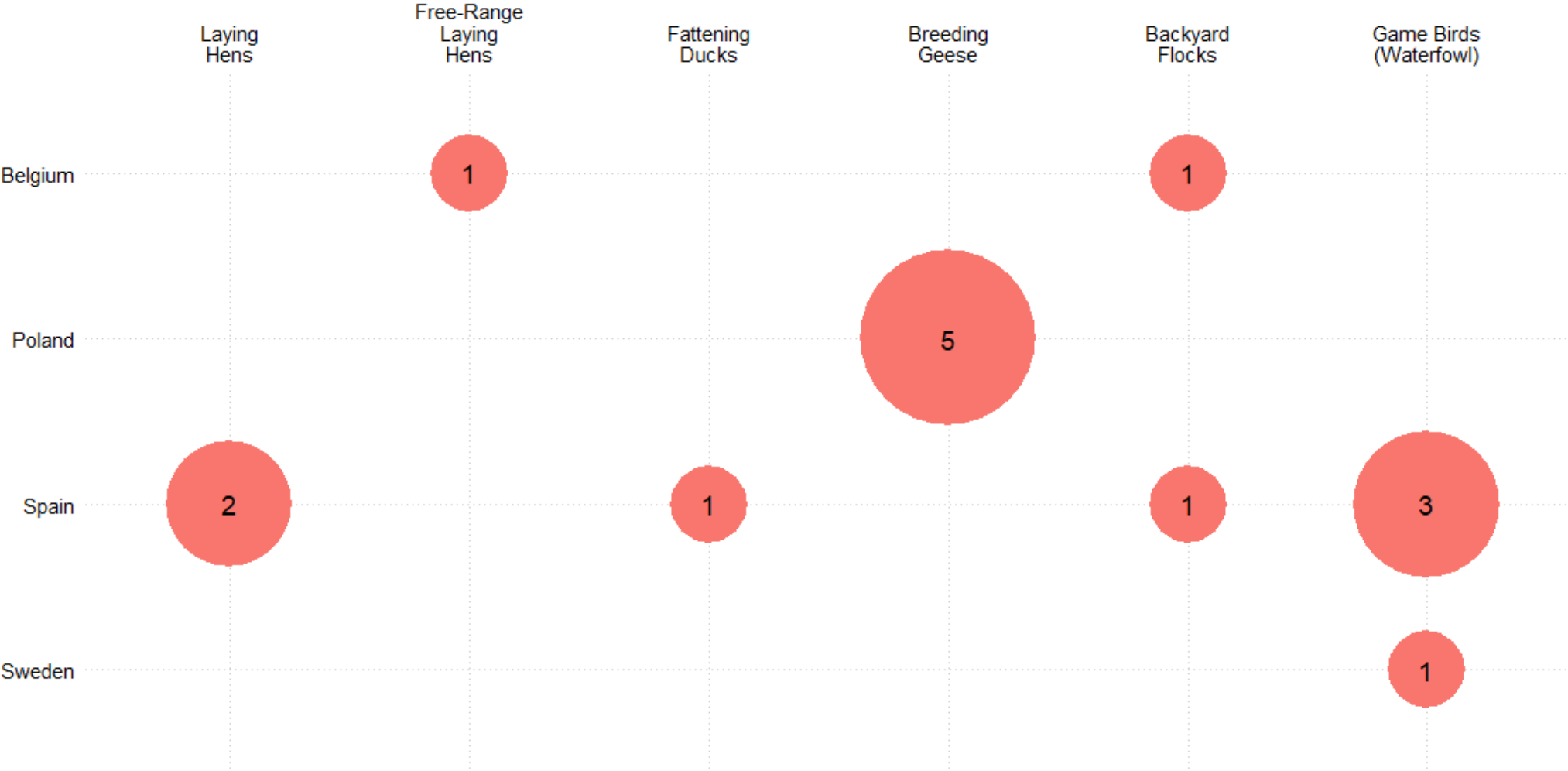
SEROLOGICAL TEST RESULTS



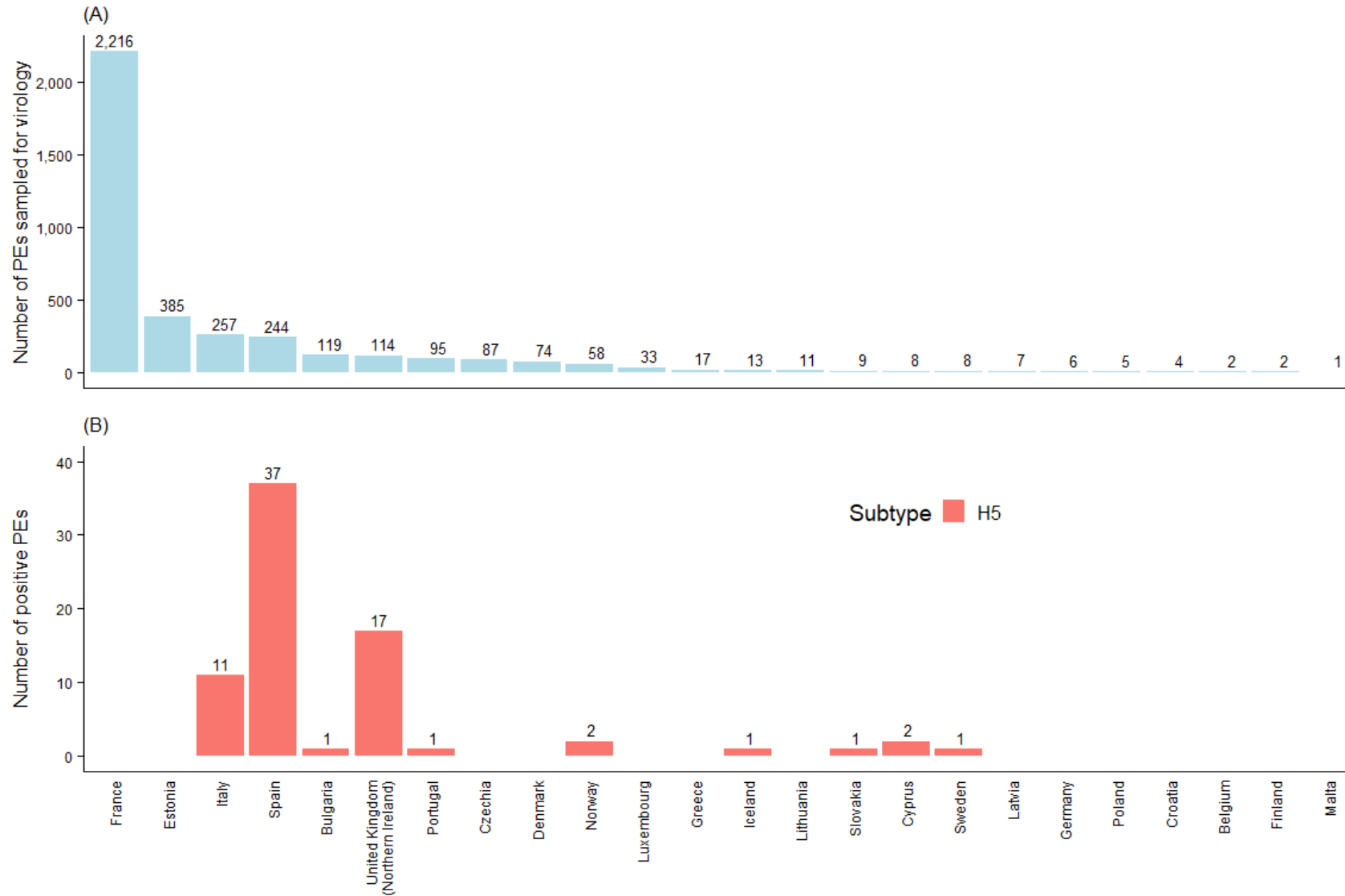
SEROLOGICAL TEST RESULTS



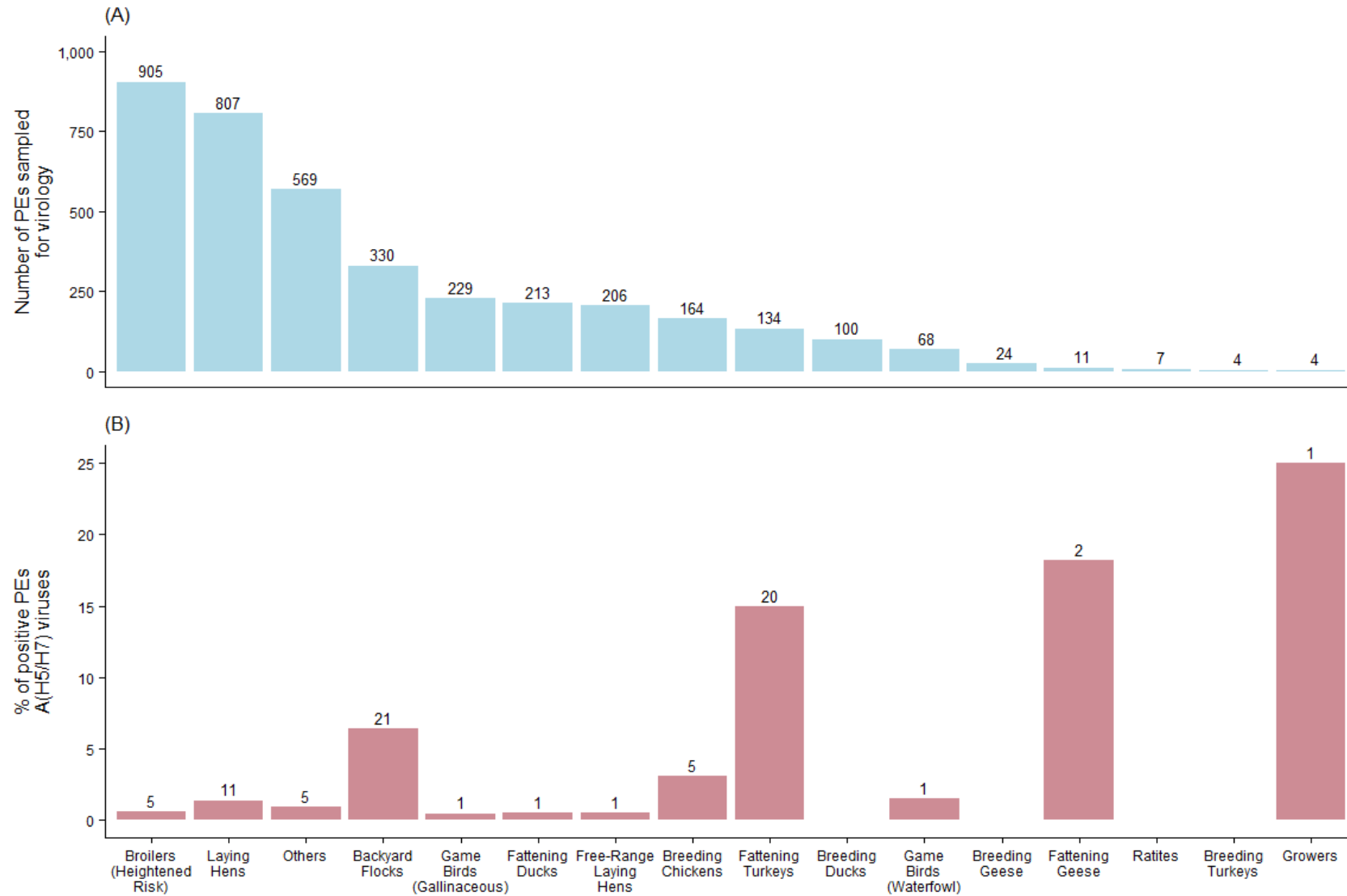
SUMMARY POSITIVITY A(H5) - SEROLOGY



VIROLOGICAL TEST RESULTS



VIROLOGICAL TEST RESULTS



SUMMARY POSITIVITY - VIROLOGY



POULTRY

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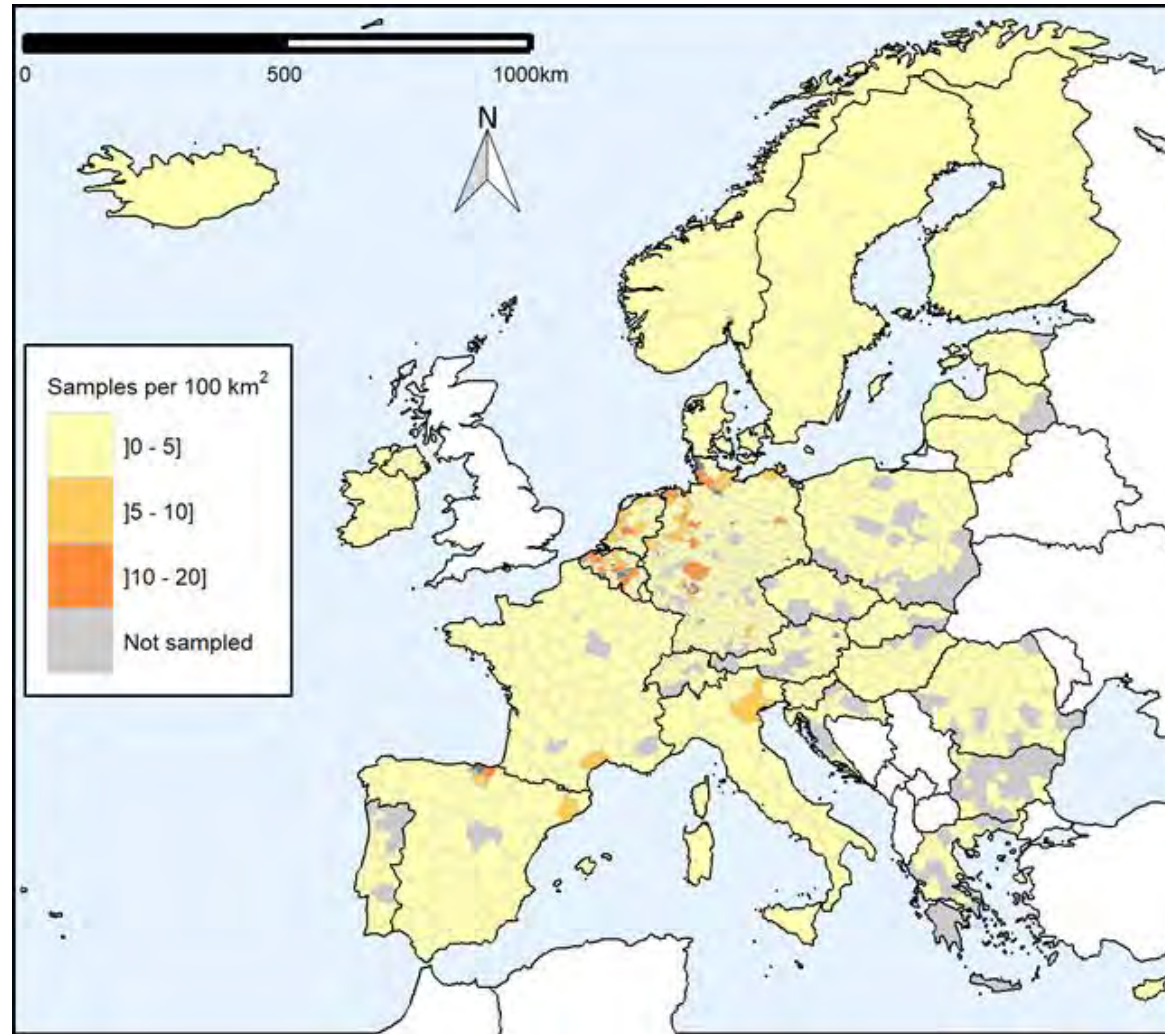


WILD BIRDS

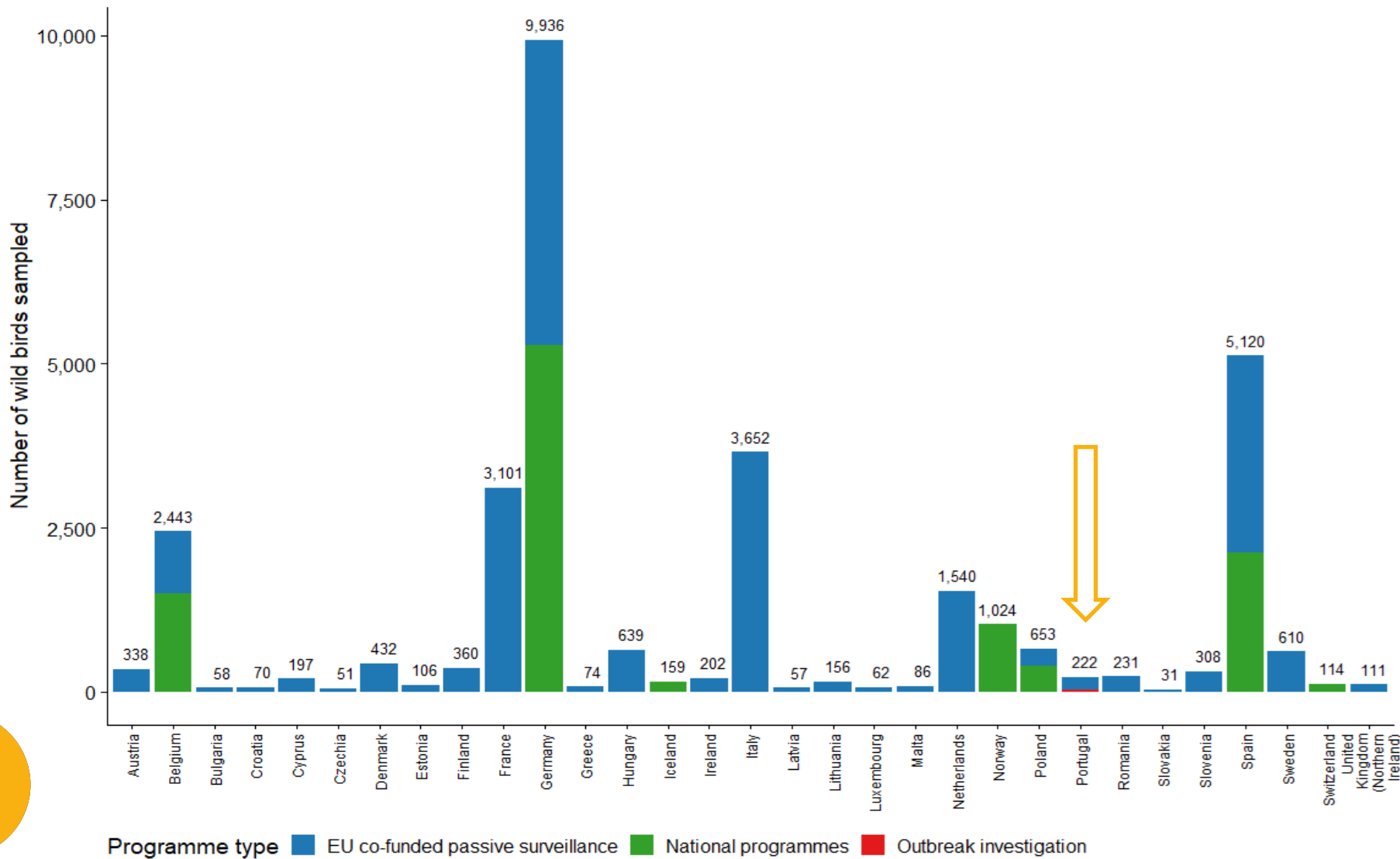


SAMPLING DENSITY

- Evenly distributed sampling
- Higher intensity in Northern Europe



NR. WILD BIRDS SAMPLED / COUNTRY

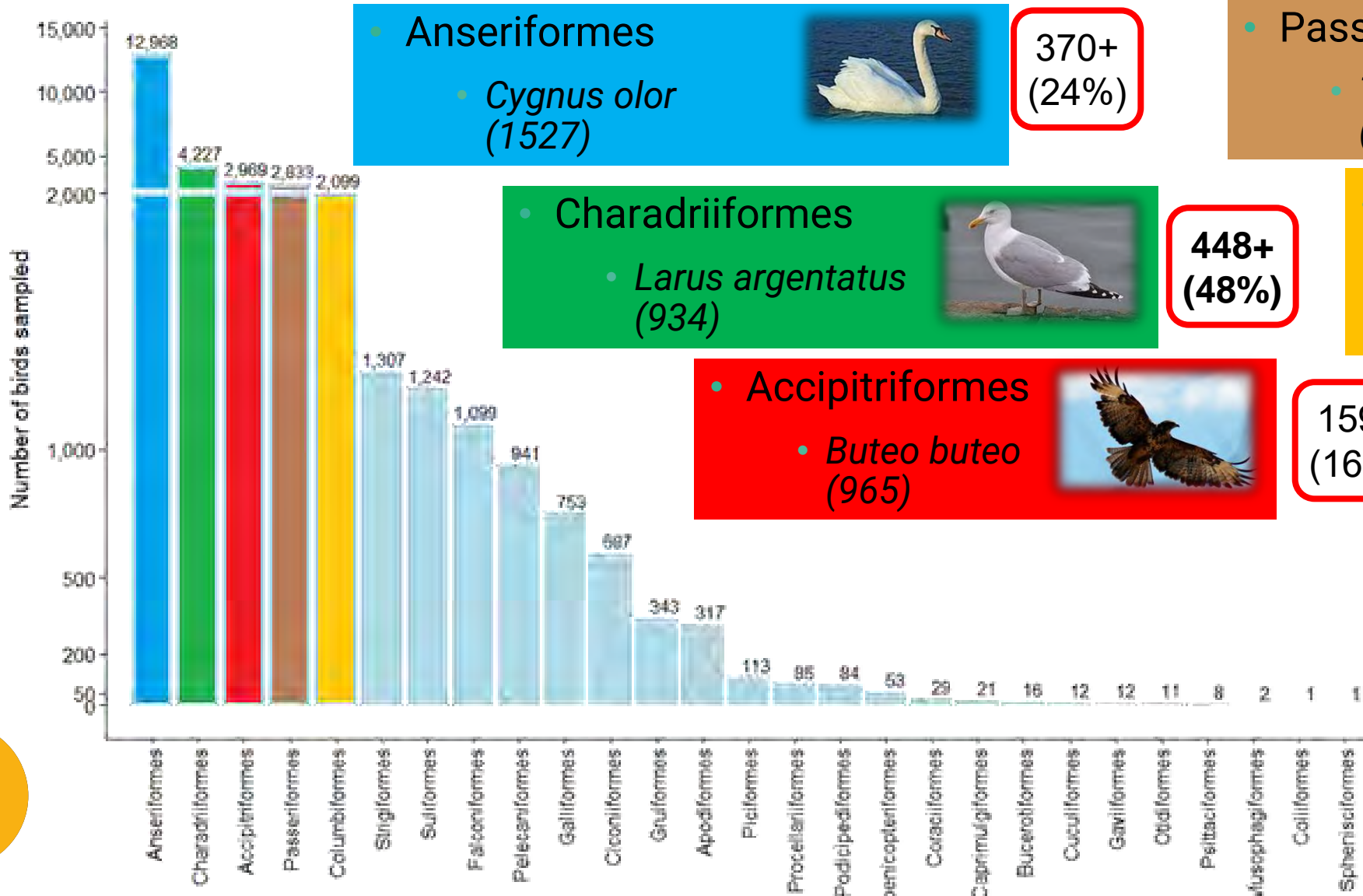


From 2024


Possibility of a more detailed description of the activity (more combinations)



SAMPLED SPECIES – ACTIVE & PASSIVE SURVEILLANCE (HPAI POS)



- Anseriformes
 - Cygnus olor* (1527)



370+
(24%)

- Passeriformes
 - Turdus spp.* (402)




8+
(2%)

- Charadriiformes
 - Larus argentatus* (934)



448+
(48%)

- Columbiformes
 - Columba livia* (698)



5+
(0.7%)

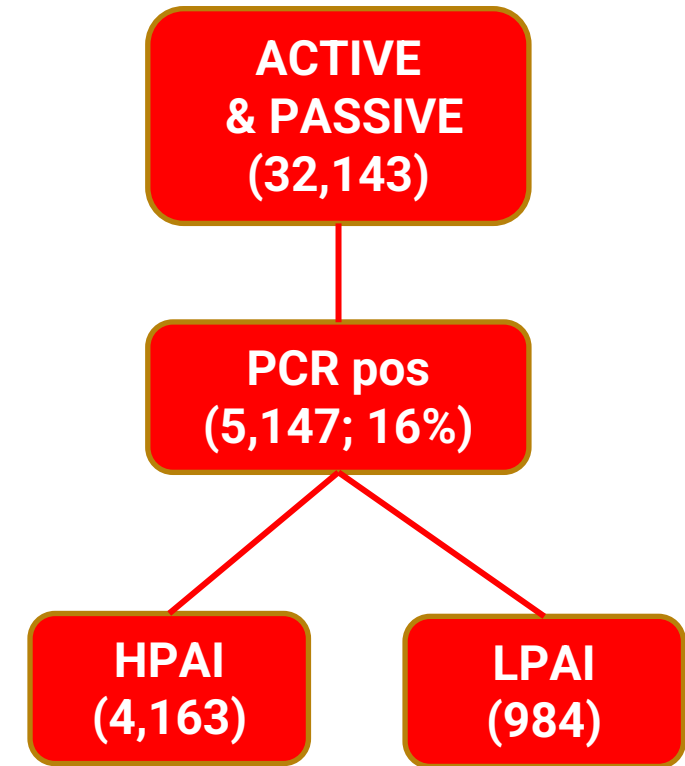
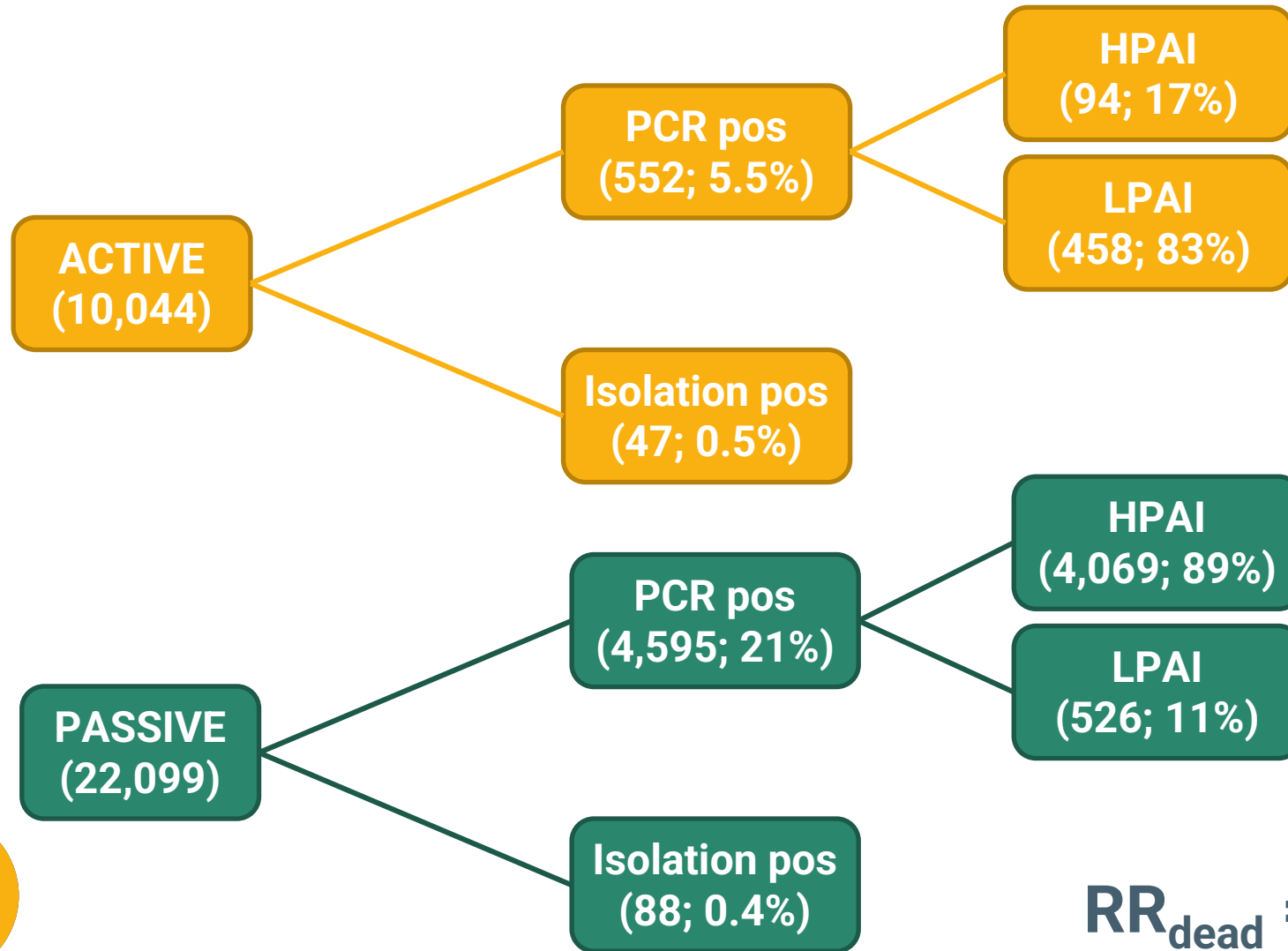
- Accipitriformes
 - Buteo buteo* (965)



159+
(16%)



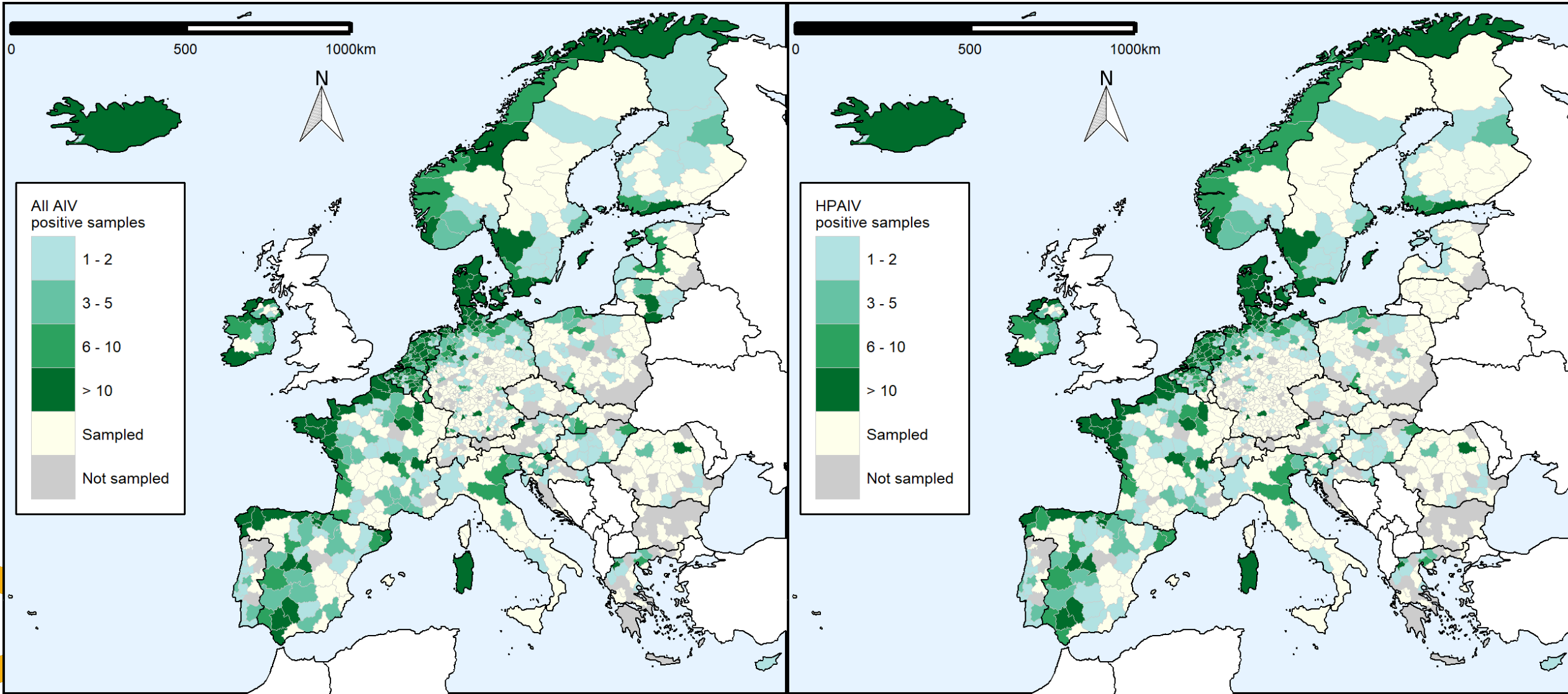
VIRO-POSITIVE SAMPLES



$$RR_{\text{dead}} = 4.6 (4.13-5.1)$$



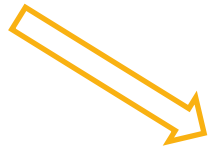
GEO-POSITIVITY (AIV VS. HPAIV)



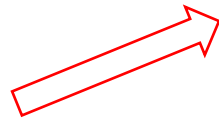
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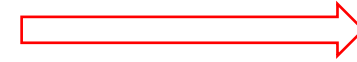
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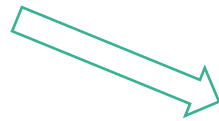
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CONCLUSIONS & FINAL REMARKS



CONCLUSIONS & FINAL REMARKS



First report reflecting the full implementation of the new legal framework →
More variety in the approaches (PCR / Virology)



Increasing complexity → Surveillance and Monitoring evaluated together ?



Evolving scenario → Need for smarter data collection strategy (flexibility & speed)



New data collection in 2024 (Pilot ongoing)





THANKS

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