

#### EUROPEAN HEALTH AND DIGITAL EXECUTIVE AGENCY (HaDEA)

Department A Health and Food Unit A2 EU4Health/SMP

Food Programmes for eradication, control and surveillance of animal diseases and zoonoses

#### submitted for obtaining EU financial contribution

### Annex IV: Programme for the surveillance of Avian Influenza in poultry and wild birds

Member States seeking an EU financial contribution for national programmes for eradication, control and surveillance of animal diseases and zoonosis shall submit online this document completely filled out by the 31 May of the year preceding its implementation (part 2.1 of Annex I to the Single Market Programme Regulation).

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- 6) You are invited to submit your programmes in English.

Document version number: 2022 1.0

Member state :	SUOMI / FINLAND			
Disease	Avian Influenza			
This program is	multi annual : no			
Request of Unio	on co-financing from beginning :	2023	To end of	2023
	Request y	ear for multianr	nual programme :	2023
1. Contact data				
Name		Phone		
Email		Your job type within the CA		

**Submission Date** 

09/12/2022 14:25:08

**Submission Number** 

1670588708806-19249

- 2. Description and implementation of the surveillance programme in poultry
- 2.1.1 Designation of the authorities in charge of supervising coordinating and implementing the programme. Please describe in details who designs, who implements, and who monitors the programme in poultry. (Roles of central authority, local authorities, vets, farmers, labs, hunting associations, etc.)

(max. 32000 chars):

The Central Authority in charge of supervising and coordinating the departments responsible for implementing the programme is the Ministry of Agriculture and Forestry, Department of Food. Also the Animal Health and Medication Unit of the Finnish Food Authority is in charge of supervising and coordinating the programme and reporting to the Ministry of Agriculture and Forestry.

The Animal Health Diagnostic Unit of the Finnish Food Authority is in charge of performing the laboratory assays. Eventually the European Union Reference Laboratory (EURL) for Avian Influenza and Newcastle Disease Istituto Zooprofilattico Sperimentale delle Venezie (IZSVe) is consulted.

Regional State Administrative Agencies are responsible for the local coordination of the programme. Local official veterinarians are taking the samples from birds which are sampled on establishments.

Official veterinarians working for the Finnish Food Authority are taking the samples at slaughterhouses. The Finnish Food Authority monitors the progress of the programme. All samples are sent to the Finnish Food Authority, so it is possible to have a list of establishments which have been sampled. If necessary, targeted requests for sampling are sent to the Regional State Administrative Agencies or official veterinarians at slaughterhouses.

### 2.1.2 Description of System in place for the registration of holdings

(max. 32000 chars):

All establishments of poultry and captive birds have to be registered on a central holding data base, regardless of the number of birds (also those who have one or just few birds in backyards) (Regulation (EU) 2016/429 of the European Parliament and of the Council). Also, hatcheries must be registered.

2.1.3 Design (risk based surveillance, or surveillance based on representative sampling taking into account criteria in Annex II of Commission Delegated Regulation (EU) 2020/689.

Provide justification for the choice of the design. Please refere also explicitly to the objectives of the surveillance programme as mentioned in section 2 of Annex II Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars):

Avian influenza surveillance system in poultry in Finland is risk based. The risk-based surveillance for infection with HPAI in poultry establishments keeping ducks, geese and mallards and the risk-based surveillance for the detection of LPAIV in poultry establishments will be carried out. Sampling is carried out throughout the whole territory of Finland taking the population densities into account.

In addition, early detection system for of HPAI in poultry is part of the general surveillance system and implemented throughout the poultry sector.

2.1.3.1 Short description of predominant poultry population and types of poultry production.

Please provide also a table with the number of poultry holdings and birds existing for each poultry type, and map with the geographic distribution and density of poultry holdings.(If not available, please explain)

(max. 32000 chars):

The poultry business in Finland is concentrated in the south-western and western part of Finland. However, the aim is to include in the surveillance establishments also from other parts of the country. Please find enclosed a table with the number of poultry holdings and birds.

Gallus gallus: There are both broiler production and laying hen farms in Finland. However, broiler production flocks are excluded from the surveillance due to their short life span, except establishments with broilers for organic production. There are 316 laying hen establishments with more than 500 hens. There are 44 establishments with chicken breeders, 3 establishments with broilers for organic production and 62 establishments with free range laying hens or laying hens for organic production. Of these, 13 are establishments with free range laying hens; one establishment in areas FI1B and FI1D, 2 establishments in area FI19 and 9 establishments in area FI1C.

The total number of establishments with turkey breeders is 3. The number of commercial fattening turkey establishments is around 60.

There are 14 establishments with at least 40 ducks and/or geese in Finland. There are 21 breeding establishments with at least 40 pheasants and 10 establishments with at least 40 mallards. The number of quail and guinea fowl establishments is not significant in Finland. Quails are not released into the wild in Finland.

2.1.3.2 Criteria and risk factors for risk based surveillance (1) Please describe the risk factors as regard the criteria set in Annex II of Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars):

The risk-based surveillance for infection with HPAI in poultry establishments keeping ducks, geese and mallards and the risk-based surveillance for the detection of LPAIV in poultry establishments will be carried out. In addition, early detection system for of HPAI in poultry is part of the general surveillance system and implemented throughout the poultry sector.

Production of ducks, geese and mallards is mainly small-scale production in Finland and the number of establishments is low. Therefore, all establishments with at least 40 ducks, geese or mallards are included

in the HPAI and LPAIV surveillance.

Risk factors for risk-based surveillance of LPAIV are

- the kept species
- the cycle and duration of production
- presence of long-lived poultry
- geographic distribution of establishments, areas with a higher density of establishments
- biosecurity practices and housing conditions, keeping of poultry outdoors.

(1) Including maps showing target sampling sites identified as being particularly at risk for the introduction of avian influenza virus, taking into account criteria set out in Annex II of Commission Delegated Regulation (EU) 2020/689.

### 2.2 Target populations

### Please explain:

- 1) The strategy of selection of the holdings to be sampled. (Random, risk based, geographic distribution)
- 2) The number of holdings sampled, with regard to the minimum requirements set in Annex II section 9 to Commission Delegated Regulation (EU) 2020/689.
- 3) The number of samples taken in each holding with regard to the minimum requirements set in Annex II section 9 to Commission Delegated Regulation (EU) 2020/689.

(max. 32000 chars):

Target populations are in accordance with the Annex II to Commission Delegated Regulation (EU) 2020/689.

Target populations for risk-based complementary surveillance for HPAI

- ducks and geese
- farmed game birds, Anseriformes (mallards)

Target populations for risk-based surveillance for LPAIV

- chicken (Gallus gallus) breeders
- laying hens, including organic and free-range laying hens
- organic broilers
- turkey breeders
- fattening turkeys
- ducks and geese
- farmed game birds, Anseriformes (mallards)
- farmed game birds, Galliformes (pheasants) breeders

The latest available numbers of establishments from the central database of animal keepers and establishments are used for calculations.

#### Ducks and geese

All establishments with at least 40 ducks and/or geese will be included in the survey, a total of 14 establishments. 20 blood samples will be taken for serological testing and 20 tracheal/oropharyngeal and 20 cloacal swabs for virological testing from each establishment. Swab samples will be pooled into groups up to five swabs, cloacal and tracheal swabs separately.

#### Farmed game birds (Anseriformes)

All establishments with at least 40 mallards will be included in the survey, a total of 10 establishments. 20 blood samples will be taken for serological testing and 20 tracheal/oropharyngeal and 20 cloacal swabs for virological testing from each establishment. Swab samples will be pooled into groups up to five swabs, cloacal and tracheal swabs separately.

#### Gallus gallus

The number of poultry establishments to be sampled is defined so as to ensure the identification of at least one infected poultry establishment where the prevalence of infected poultry establishments is at least 5 %, with a 95 % confidence interval. A total of 60 establishments with more than 500 laying hens will be selected from the register. 42 establishments with free range laying hens or laying hens for organic production will be selected from the register and included in the surveillance. Sampling of laying hens will be targeted to areas with a higher density of poultry establishments, South-Western and Western Finland.

All establishments with Gallus gallus adult breeding flocks will be included in the surveillance, a total of 44 establishments.

Broiler production flocks are excluded from the survey due to their short life span. However, organic broiler flocks will be included in the survey, a total of 3 establishments.

Number of samples: Five blood samples from each shed and 10 samples per establishment as a minimum will be collected to ensure 95 % probability of identifying at least one positive bird if the prevalence of seropositive birds is  $\geq$  30%.

#### Turkeys

All establishments with turkey breeders (3 establishments) will be included in the surveillance. All commercial fattening turkey establishments which send turkeys to a slaughterhouse will be included in the surveillance, a total of 60 establishments. 10 blood samples as a minimum per farm will be collected to ensure 95 % probability of identifying at least one positive bird if the prevalence of seropositive birds is  $\geq$  30 %.

#### Farmed game birds (Galliformes)

All of the breeding establishments with at least 40 pheasants will be included in the surveillance, a total of 21 establishments. 10 blood samples will be taken for serological testing from each establishment.

The total number of establishments to be sampled in Finland for avian influenza will be 257 in 2023.

2.2.1 POULTRY HOLDINGS <sup>(a)</sup> (except ducks, geese and farmed game birds (waterfowl e.g. mallards) to be sampled

Serological investigation according to Annex I to Commission Decision 2010/367/EU

Targets for year

2023

Category: chicken breeders

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C	20	20	15	300	300	HI-test (H5)	X
FI1C	20	20	15	0	300	HI-test (H7)	X
FI19	24	24	15	360	360	HI-test (H5)	X
FI19	24	24	15	0	360	HI-test (H7)	X
Total					1 320		

Add a new row

- (a) Holdings or herds or flocks or establishments as appropriate.
- Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested
- (c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category: laying hens

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C	164	34	15	510	510	HI-test (H5)	X
FI1C	164	34	15	0	510	HI-test (H7)	X
FI19	113	23	15	345	345	HI-test (H5)	X
FI19	113	23	15	0	345	HI-test (H7)	X
FI1D	32	3	15	45	45	HI-test (H5)	X
FI1D	32	3	15	0	45	HI-test (H7)	X
Total					1 800		

Add a new row

Category: free range laying hens

delete this category

<sup>(</sup>a) Holdings or herds or flocks or establishments as appropriate.

Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

Total number of holdings of one category of poultry in concerned NUTS 2 region.

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1B	4	1	10	10	10	HI-test (H5)	X
FI1B	4	1	10	0	10	HI-test (H7)	X
FI1C	32	25	10	250	250	HI-test (H5)	X
FI1C	32	25	10	0	250	HI-test (H7)	X
FI19	20	14	10	140	140	HI-test (H5)	X
FI19	20	14	10	0	140	HI-test (H7)	X
FI1D	6	2	10	20	20	HI-test (H5)	X
FI1D	6	2	10	0	20	HI-test (H7)	X
Total					840		

Add a new row

Category: broilers (only when at risk)

delete this category

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled		Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C	1	1	10	10	10	HI-test (H5)	X
FI1C	1	1	10	0	10	HI-test (H7)	X

<sup>(</sup>a) Holdings or herds or flocks or establishments as appropriate.

b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

Total number of holdings of one category of poultry in concerned NUTS 2 region.

						Add a new row	
Tota					60		
FI19	2	2	10	0	20	HI-test (H7)	X
FI19	2	2	10	20	20	HI-test (H5)	X

- (a) Holdings or herds or flocks or establishments as appropriate.
- (b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested
- (c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category: turkey breeders

delete this category

NUTS	S (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C		1	1	10	10	10	HI-test (H5)	X
FI1C		1	1	10	0	10	HI-test (H7)	X
FI19		2	2	10	20	20	HI-test (H5)	X
FI19		2	2	10	0	20	HI-test (H7)	X
	Total					60		
							Add a new row	

- (a) Holdings or herds or flocks or establishments as appropriate.
- b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested
- (c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category: fattening turkeys

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C	19	19	10	190	190	HI-test (H5)	X
FI1C	19	19	10	0	190	HI-test (H7)	X
FI19	38	38	10	380	380	HI-test (H5)	X
FI19	38	38	10	0	380	HI-test (H7)	X
FI1D	3	3	10	30	30	HI-test (H5)	X
FI1D	3	3	10	0	30	HI-test (H7)	X
Total					1 200		

Add a new row

(a) Holdings or herds or flocks or establishments as appropriate.

Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

(c) Total number of holdings of one category of poultry in concerned NUTS 2 region.

Category: farmed game birds (gallinaceous)

delete this category

ANNEX 4: Standard requirements for the submission of surveillance programmes for avian influenza in poultry and wild birds

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1B	3	3	10	30	30	HI-test (H5)	Х
FI1B	3	3	10	0	30	HI-test (H7)	X
FI1C	11	11	10	110	110	HI-test (H5)	X
FI1C	11	11	10	0	110	HI-test (H7)	X
FI19	5	5	10	50	50	HI-test (H5)	X
FI19	5	5	10	0	50	HI-test (H7)	X
FI1D	2	2	10	20	20	HI-test (H5)	X
FI1D	2	2	10	0	20	HI-test (H7)	X
Total					420		

Add a new row

Category: poultry

delete this category

NUTS (2) (b)	Total number of holdings(c)	Total number of holdings to be sampled		Total number of samples	Total number of tests	Method of laboratory analysis	
Finland	509	2	20	40	40	PCR test	X
Finland	509	2	20	0	20	Virus isolation test	X

<sup>(</sup>a) Holdings or herds or flocks or establishments as appropriate.

b) Refers to the location of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member States is requested

Total number of holdings of one category of poultry in concerned NUTS 2 region.

Total		60
		Add a new row
	or flocks or establishments as appropriate. ion of the holding of origin. In case NUTS (Nomenclature of Territorial Units for Statistics) can n	ot be used, region as defined in the programme by the Member States is requested
(c) Total number of h	oldings of one category of poultry in concerned NUTS 2 region.	

### Add a category

Totals	Total number of tests	Total number of samples
Total poultry 2023	5 760	2 890

2.2.2 DUCKS, GEESE AND FARMED GAME BIRDS (WATERFOWL e.g. MALLARD) HOLDINGS (a) to be sampled.

Serological investigation according to Annex I to Commission Decision 2010/367/EU

Targets for year

2023

Category: ducks and geese

delete this category

In the column "Total number of samples", please put 0 if the same samples have already been counted for another laboratory analysis (example : for HI-H5 and HI -H7 test, only 1 sample should be counted)

NUTS (2) (b)	Total number of duck and geese holdings	Total number of duck and geese holdings to be sampled	Number of samples per holding	Total number of samples	Total number of tests	Method of laboratory analysis	
FI1C	3	3	20	60	120	HI-test (H5)	X
FI1C	3	3	20	0	60	HI-test (H7)	X
FI1C	3	3	40	120	24	PCR test	X
FI19	7	7	20	140	280	HI-test (H5)	X
FI19	7	7	20	0	140	HI-test (H7)	X
FI19	7	7	40	280	56	PCR test	X
FI1D	4	4	20	80	160	HI-test (H5)	X
FI1D	4	4	20	0	80	HI-test (H7)	X
FI1D	4	4	40	160	32	PCR test	X
Total					952		
					Δ	dd a new row	

Holdings or herds or flocks or establishments as appropriate.

(b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

Category: farmed game (waterfowl e.g. mallards)

delete this category

NUTS (2) (b)	Total number of duck and geese holdings	Total number of duck and geese holdings to be sampled	Number of samples per	Total number of samples	Total number of tests	Method of laboratory analysis	
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					A	dd a new row	
Total					680		
FI1D	1	1	40	40	8	PCR test	X
FI1D	1	1	20	0	20	HI-test (H7)	X
FI1D	1	1	20	20	40	HI-test (H5)	X
FI19	6	6	40	240	48	PCR test	X
FI19	6	6	20	0	120	HI-test (H7)	X
FI19	6	6	20	120	240	HI-test (H5)	X
FI1C	2	2	40	80	16	PCR test	X
FI1C	2	2	20	0	40	HI-test (H7)	X
FI1C	2	2	20	40	80	HI-test (H5)	X
FI1B	1	1	40	40	8	PCR test	X
FI1B	1	1	20	0	20	HI-test (H7)	X
FI1B	1	1	20	20	40	HI-test (H5)	X

<sup>(</sup>a) Holdings or herds or flocks or establishments as appropriate.

### Add a category

Totals	Total number of tests	Total number of samples
Total ducks and geese and farmed game birds 2023	1 632	1 440

<sup>(</sup>b) Refers to the location of the holding of origin. In case NUTS (2) code can not be used, region as defined in the programme by the Member State is requested

<b>TOTALS for Poultry</b>	(2.2.1) + Ducks and	Geese (2.2.2)	and farmed go	ame birds for year:
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2023	
ZUZO	

Poultry + Ducks/Geese /farmed game birds	Total number of tests
Grand Total	7 392
Grand Total ELISA	0
Grand Total agar	0
Grand Total HI tests (H5)	3 810
Grand Total HI tests (H7)	3 330
Grand Total Virus Isolation test	20
Grand Total PCR test	232
Grand Total Samplings	4 330

2.3 Sampling procedures, sampling periods and frequency of testing taking into account criteria set out in Annex II of Commission Delegated Regulation (EU) 2020/689.

For each poultry category please detail the place of sampling (holding or slaughterhouse), the period and frequency of the testing, and who is in charge of the sampling.

#### (max. 32000 chars):

In all kind of establishments samples are collected once a year. Sampling period is the whole year, 1 January – 31 December. The municipal veterinary officer is in charge of the sampling on establishments and the official veterinarian at slaughterhouses.

Gallus gallus: Blood samples will be taken by a municipal veterinary officer on establishments except samples from broiler breeding flocks and organic broiler flocks are collected at slaughterhouses.

Turkeys: Samples are collected at slaughterhouses.

Ducks and geese: Samples are taken by municipal veterinary officer on establishment.

Farmed game birds (Galliformes): Samples are taken by municipal veterinary officer on establishment. Sample may be taken also at a slaughterhouse. Farmed game birds (Anseriformes): Samples are taken by municipal veterinary officer on establishment.

### 2.4. Laboratory testing: description of the laboratory tests used.

Please describe the tests to be used and their purpose (screening test or confirmatory test or follow-up investigations) for each category of poultry.

Please explain the number of tests calculation for each poultry category, and if it is in line with Annex II to Commission Delegated Regulation (EU) 2020/689.

Description of the used serological tests: (max 32000 chars)

The surveillance in poultry is carried out by haemagglutination-inhibition (HI) test for H5- and H7- subtypes in accordance with the guidance from EURL for avian influenza and the European Commission. Samples of ducks, geese and mallards are tested also with an additional third antigen H5N8 as recommended by the European Commission. The HI test is used as a screening test.

Swab samples from ducks, geese and mallards are tested by M-gene RT-PCR in accordance with the guidance from EURL for avian influenza and the European Commission.

The laboratory responsible for the testing is the Finnish Food Authority.

In case of positive samples official veterinarian collects new samples on the establishment for virological testing. M-gene RT-PCR is done in accordance with the guidance from EURL. In case of a positive finding H5- and H7-RT-PCRs and subsequent sequence analysis of the cleavage site are undertaken. Virus isolation may be needed in some cases. The establishment is also investigated for signs of avian influenza including production losses.

### 3. Description and implementation of the surveillance programme in wild birds

3.1.1 Designation of the authorities in charge of supervising, coordinating, and implementing the programme and relevant collaborating partners (e.g. epidemiologists, ornithologists, nature bird observation and hunter organisations).

Please describe in detail who designs, who implements, and who monitors the programme in wild birds.

Please detail the system in place to detect the dead wild birds; please explain who delivers the wild birds to the laboratory.

(max. 32000 chars):

The Ministry of Agriculture and Forestry and the Finnish Food Authority are in charge of supervising, coordinating and monitoring as described earlier in point 4.1. The Natural Resources Institute Finland and the Finnish Museum of Natural History is consulted in population matters.

Dead wild birds are sent to the Finnish Food Authority by ordinary citizens, hunters, veterinarians and officials.

In case of suspicion of highly pathogenic avian influenza in wild birds the official veterinarian sends the samples.

3.1.2 Description and delimitation of the geographical and administrative areas in which the programme is to be applied

max. 32000 chars):

In principle the sampling covers the whole country. It is difficult to anticipate where the dead birds are found but based on previous experience most samples come from coastal areas in particular Uusimaa (FI1B) and Oulu (FI1D6).

### 3.1.3 Estimation of the local and/or migratory wildlife population

Please provide main species, number of birds, migratory routes, geographic distribution or risk areas.

(max. 32000 chars):

About 250 species of birds and over 50 million pairs breed in Finland. Most of the Finnish birds are migratory. Finland's coastline, the shallow inland lakes, and arable lands are important foraging and resting areas to millions of ducks, geese and waders that winter in Europe or Africa and breed in Russia but migrate through Finland twice a year. The distribution of bird species has been studied in three atlas surveys in Finland. The newest, third atlas was conducted in 2006-10. Most abundant of the target species (according to EFSA 2017) are Anas platyrhynchos (about 200 000 breeding pairs), Anas crecca (about 200 000 breeding pairs), Bucephala clangula (170 000 – 220 000 breeding pairs), Pica pica (140 000 - 200 000 breeding pairs), Tringa ochropus (about 150 000 breeding pairs), Somateria mollissima (about 110 000 breeding pairs), Chroicocephalus ridibundus (95 000 - 110 000 breeding pairs) and Larus canus (about 80 000 breeding pairs). There are various bird monitoring schemes going on in Finland. For example the Natural Resources Institute Finland and the Finnish Museum of Natural History carry out annual monitoring of waterfowl population.

In Finland, bird migration is particularly focused on the coastal lines of the Gulf of Finland and Gulf of Bothnia. The migratory route for Arctic waterfowl and geese, mainly located in the Gulf of Finland, is particularly important internationally. The coast of the Gulf of Bothnia is followed, for example, by the main migration of the whooper swan and the bean goose. In addition to the coasts, main migration routes are abundant in eastern and southeastern Finland. In the inland areas of southern and central Finland and northern Finland, there are fewer main migratory routes for birds. The main migration routes for bird species are often different in spring and autumn. For example, the migration of Arctic waterfowl and geese condenses in spring to the northern coast of the Gulf of Finland but passes through the Gulf of Finland mostly in the outer sea and off the coast of Estonia in the autumn. On the other hand, this migration extends to a wider area of eastern Finland in the autumn than in the spring. (Lintujen päämuuttoreitit Suomessa, Tero Toivanen, Timo Metsänen ja Teemu Lehtiniemi, BirdLife Suomi ry, 14.5.2014)

Breeding areas are situated across the country also along the many lakes and rivers.

### 3.2 Design, criteria, risk factors and target population(3)

(max. 32000 chars):

Flyways of migratory birds go along the southern and western coast of Finland. Breeding areas are situated across the country also along the many lakes

and rivers. No special risk areas are defined at the moment. Surveillance for avian influenza in wild birds is opportunistic, conducted as part of general wildlife disease surveillance which is based on examining animals found dead or euthanized due to illness. Sample birds are sent to the Finnish Food Authority from all over the country by ordinary citizens, hunters, veterinarians and officials. The Animal Health Diagnostic Unit of the Finnish Food Authority takes samples for AI testing from wild birds which have been sent for necropsy. Local veterinary officers have been asked to notify and collect samples of unexpected mortality events of wild birds. At least cloacal and oropharyngeal swabs and preferably organ samples as well will be taken from these birds.

Sampling is targeted on species which are listed as target species by EFSA. Small passerines are excluded. Most commonly sampled species include gulls (Laridae), raptors (Accipitridae), swans, ducks and geese (Anatidae) and owls (Strigidae). Samples are analyzed in the Animal Health Diagnostic Unit of the Finnish Food Authority.

(3) Areas at risk (wetlands in particular where links with high density poultry populations), previous positive findings as referred to in Annex II to Commission Delegated Regulation (EU) 2020/689 should be taken into account and if possible complemented by a map.

### 3.2.1 WILD BIRDS focussed on target species

Investigations according to the surveillance programme set out in conformity with Annex II to Commission Delegated Regulation (EU) 2020/689

Targets for year

2023

NUTS (2) code/region (a)	Total number of wild birds to be sampled	Estimated total number of wild birds to be samples for passive surveillance		Number of tests	
Finland	250	250	PCR test	500	X
Finland	250	0	Virus isolation test	40	X
Total	500	250		540	

#### Add a new row

(a) Refers to the place of collection of birds/samples. In case NUTS 2 (Nomenclature of Territorial Units for Statistics) can not be used, region as defined in the programme by the Member State is requested. Please fill-in these values directly in the field.

	Total number of tests
Total number of tests	540
Total Virus isolation tests	40
Total PCR tests	500
Total Other tests	0
Total number of wild birds to be sampled for passive surveillance	250

# 3.3 Sampling procedures and sampling periods Please also explain which samples are taken from wild birds

#### max 32000 chars:

The Finnish Food Authority is responsible for the implementation of the avian influenza surveillance programme for wild birds in Finland. The sampling procedure is in accordance with the Commission Delegated Regulation (EU) 2020/689 and the guidance from EURL. In passive surveillance, the Animal Health Diagnostic Unit of the Finnish Food Authority takes samples from individual necropsied birds. The samples are cloacal and oropharyngeal swabs, two swabs/bird. The samples are examined in the Animal Health Diagnostic Unit of the Finnish Food Authority. Sampling period is the whole year. Target is that a total of 250 wild birds are sampled.

### 3.4 Laboratory testing: description of the laboratory tests used.

Please explain also which laboratory do the tests for the wild birds, and which, and how many tests are planned for each wild bird

#### max 32000 chars:

The virological surveillance in wild birds will be carried out individually by M-gene RT-PCR in accordance with the guidance from EURL for avian influenza and the European Commission. Two M-gene RT-PCR tests are done for each wild bird. In case of a positive finding H5- and H7-RT-PCRs and subsequent sequence analysis of the cleavage site are undertaken. Virus isolation may be needed in some cases.

The laboratory responsible for the testing is the Finnish Food Authority.

### 4. Short description of the epidemiological situation of the disease in poultry during the last five years

#### max 32000 chars:

Highly pathogenic avian influenza has been detected only once in poultry in Finland. HPAI H5N8 outbreak was detected in pheasants in a game bird establishment in January 2021. H5 antibodies were detected in three poultry establishments in 2021 and in one establishment in 2020 but the H5/H7-virus could not be found. All the other results of the avian influenza surveillance have been negative 2017-2021.

Surveillance for avian influenza in poultry 2017-2021

Year	Samples	Estab <b>l</b> ishments	Positive establishments (H5 antibodies)
2017	1961	181	0
2018	1999	193	0
2019	1977	185	0
2020	1719	162	1
2021	1817	181	3

### 5. Short description of the epidemiological situation of the disease in wild birds during the last five years

#### (max. 32000 chars):

A total of 15 outbreaks of highly pathogenic avian influenza H5N8/H5 were detected in wild birds in Finland during November 2016 - April 2017. This was the first time that highly pathogenic avian influenza was found in Finland. Before that only low pathogenic strains of the virus have been detected in some wild ducks and gulls. Since then HPAI H5N6 was detected in three wild birds in 2018 and in 2021 a total of 66 HPAI outbreaks were detected. The virus types were HPAI H5N8, HPAI H5N1 and HPAI H5 in 2021.

In addition, non-H5/H7 avian influenza viruses have been detected in a few sporadic cases.

Avian influenza in wild birds 2017-2021

Year	Number of wild birds	•	Virus type
		(PCR/virus isolation*)	
2016	208	15/1	HPAI H5N8
2017	316	7/0	HPAI H5N8
2018	195	4/3	HPAI H5N6, non-H5/H7
2019	174	3/0	non-H5/H7
2020	222	3/1	non-H5/H7
2021	560	110/0	HPAI H5N8, HPAI H5N1, HPAI H5, non-H5/H7
* Viru	s isolation is not done	from every PCR positive	e samples

# 6. Measures in place as regards the notification of the disease Please explain also briefly the measures implemented in case of suspicion or confirmation of the disease

#### (max. 32000 chars):

Avian influenza is a compulsorily notifiable disease in Finland in accordance with the Regulation (EU) 2016/429 of the European Parliament and of the Council and the Animal Disease Act 76/2021. Owners and keepers of animals and any other persons involved in the examination, care, treatment, transport, kill, slaughter, hunting or observation of animals are under an obligation to immediately notify a municipal veterinary officer or regional veterinary officer if they detect any signs of avian influenza. In addition, any major disease event or mass death among animals or any essential change in

the behaviour or productivity of animals that may indicate the occurrence of avian influenza, must be reported. All veterinarians must report to the official veterinarian immediately if avian influenza is suspected. Municipal veterinary officer must report to the regional veterinary officer and regional veterinary officer must report to the Finnish Food Authority. Notifications shall be made immediately. Official veterinarians must take immediate steps to ensure the diagnosis and prevent spreading of the disease. The animal establishment is placed under restrictions. The measures in case of confirmation of highly pathogenic avian influenza are in accordance with the Commission Delegated Regulation (EU) 2020/687.

#### 7. Costs

### 7.1 Detailed analysis of the costs

### 7.1.1 Poultry including ducks, geese and farmed game birds

Please also check the consistency between the numbers mentioned in tables 2.2.1, 2.2.2, 7.2.1, and the information provided in box 2.3 and 2.4. Please comment also the cost-efficiency aspects of the programme

(max. 32000 chars):

As the number of samples to be taken will depend on the number of sheds per holding, the maximum numbers of samples are described. Samples of ducks, geese and mallards are tested also with an additional third antigen H5N8 as recommended by the Commission. The estimated number of PCR and virus isolation tests for confirmation is 40. Information regarding the estimated costs is in Table 7.2.1 below.

Samples will be taken at slaughterhouses whenever it is possible, which is the most cost-efficient way. On poultry holdings sampling will be combined with sampling for other purposes, whenever possible, such as within the framework of Salmonella control programme.

#### 7.1.2 Wild birds

Please also check the consistency between the numbers mentions in tables 3.2.1, 7.2.2 and the information provided in box 3.3 and 3.4.

(max. 32000 chars):

A total of 250 birds (2 samples/bird, a total of 500 samples) will be analysed. No co-financing is requested for the costs of sampling.

### C. Financial information

1. Identification of the implementing entities - financial circuits/flows

Identify and describe the entities which will be in charge of implementing the eligible measures planned in this programme which costs will constitute the reimbursement/payment claim to the EU. Describe the financial flows/circuits followed.

Each of the following paragraphs (from a to e) shall be filled out if EU cofinancing is requested for the related measure.

a) Implementing entities - **sampling**: who perform the official sampling? Who pays? (e.g. authorised private vets perform the sampling and are paid by the regional veterinary services (state budget); sampling equipment is provided by the private laboratory testing the samples which includes the price in the invoice which is paid by the local state veterinary services (state budget))

(max. 32000 chars):

Local official veterinarians will take the samples from birds (poultry) which are sampled on establishments. Official veterinarians working for the Finnish Food Authority are taking the samples at slaughterhouses. Sampling for poultry is paid by state budget.

- b) Implementing entities testing: who performs the testing of the official samples? Who pays?
- (e.g. regional public laboratories perform the testing of official samples and costs related to this testing are entirely paid by the state budget)

(max. 32000 chars):

The Finnish Food Authority performs the testing of samples and costs related to this testing are entirely paid by state budget.

- c) Implementing entities compensation: who performs the compensation? Who pays?
- (e.g. compensation is paid by the central level of the state veterinary services, or compensation is paid by an insurance fund fed by compulsory farmers contribution)

(max. 32000 chars):

Compensation is paid by the Finnish Food Authority from a budget line specifically allocated for this purpose. The legal basis for the compensation is in the Animal Diseases act 76/2021, 83 §.

- d) Implementing entities **vaccination**: who provides the vaccine and who performs the vaccination? Who pays the vaccine? Who pays the vaccinator?
- (e.g. farmers buy their vaccine to the private vets, send the paid invoices to the local state veterinary services which reimburse the farmers of the full amount and the vaccinator is paid by the regional state veterinary services)

(max. 32000 chars):

No vaccination is performed.

e) Implementing entities - <b>other essential measures</b> : who implements this measure? Who provides the equipment service? Who pays?
(max. 32000 chars):
No other essential measures.
2. Source of funding of eligible measures
All eligible measures for which cofinancing is requested and reimbursement will be claimed are financed by public funds.
⊠ <i>yes</i>
$\square$ no
3. Additional measures in exceptional and justified cases
In the "Guidelines for the Union co-funded veterinary programmes", it is indicated that in exceptional and duly justified cases, additional necessary measures can be proposed by the Member States in their application.
If you introduced these type of measures in this programme, for each of them, please provide detailed technical justification and also justification of their cost:

#### **Attachments**

#### **IMPORTANT**:

- 1) The more files you attach, the longer it takes to upload them .
- 2) This attachment files should have one of the format listed here: jpg, jpeg, tiff, tif, xls, xlsx, doc, docx, ppt, pptx, bmp, pna, pdf.
- 3) The total file size of the attached files should not exceed 2 500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
- 4) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD** ALL THE ATTACHED FILES. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
- 5) Only use letters from a-z and numbers from 1-10 in the attachment names, otherwise the submission of the data will not work.

### List of all attachments

	Attachment name	File will be saved as (only a-z and 0-9 and) :	File size
		Total size of attachments :	