



submitted for obtaining EU financial contribution

Annex I.a: Programme for the eradication of Rabies

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).

If encountering difficulties:

- concerning the information requested, please contact HADEA-VET-PROG@ec.europa.eu.
- on the technical point of view, please contact SANTE-BI@ec.europa.eu, include in your message a printscreen of the complete window where the problem appears and the version of this pdf:

Protection of Your Personal Data:

For consultation about the processing and the protection of your personal data, please click to follow this link

Instructions to complete the form:

[Privacy Statement](#)

- 1) You can attach documents (.docx, .xlsx, .pdf, etc) to complete your report.
Using the button "Add attachments" on the last page of the form.
- 2) Before submitting this form, please use the button "Verify form"(bottom right of each page).
If needed, complete your pdf document as indicated.
- 3) When you have finished completing this pdf document, save it on your computer.
- 4) Verify that your internet connection is active and then click on the "Submit notification" button and your pdf document will be sent to our server. A submission number will appear on your document.
Save this completed document on your computer for your record.
- 5) For simplification purposes you are invited to submit multi-annual programmes.
- 6) You are invited to submit your programmes in English.

Document version number: 2022 1.0

Member state :

Disease

Species :

This program is multi annual :

Request of Union co-financing from beginning of : To end of:

Year for request

Contact data

Name : Phone :

Email : Your job type
within the CA :

Submission Date
30/11/2022

Submission Number
1669810900195-18899



Standard requirements for the submission of programme for eradication, control and surveillance

A. Technical information

1. Submitted programme

1.1 Provide a concise description of

- the programme with its main objective, overall strategy and timeframe. In case of a long time strategy, interim objectives for each year should be specified.
- target population for vaccination, surveillance and monitoring
- main measures: vaccination scheme, surveillance, monitoring and other measures
- areas of implementation of the programme
- areas you envisage to continue vaccinating from 2020 onwards

(max. 32000 chars) :

The objective of the programme is to prevent rabies from entering Finland through foxes and raccoon dogs moving across the Eastern border of Finland from Russia.

Finland has been rabies free since 1991. In order to prevent rabies from spreading across the national border, oral rabies vaccination has been carried out annually since 1991. From 2004 to 2013, the vaccination was carried out twice a year. In 2011 the vaccination area was enlarged due to the announcement of rabies in Russian Karelia. In 2014 the vaccination frequency was reduced to once per year, in the autumn, since that was considered sufficient due to the favourable epidemiological situation and to reduce the cost of vaccination. In 2021, vaccination area was reduced by excluding the most Northern part of the area, but keeping the same width (40 km, except in the very south part 20 km). This was done without reducing the effectiveness of the program, based on the following:

1) Reported rabies cases in Russia have occurred in the areas that are located more to south-east from Finland and therefore we consider that the risk of introducing rabies from Russia is more severe from the South-East part of our country. The new area is similar to the area where vaccination was conducted before 2011. In 2011, Russia informed of rabies cases in cows in Karelia and based on this information, the vaccination area in Finland was expanded. No suspected or confirmed cases of rabies have been reported in Karelia since 2011.

2) The density of raccoon dogs and foxes is lower in the Northern part of the vaccination area than in the South. This is also suggested by the annual hunting bag statistics which show that the hunting bag for both foxes and raccoon dogs is significantly lower in the Northern part of the vaccination area.

The target population for the vaccination scheme are foxes and raccoon dogs. Surveillance and monitoring is carried out in foxes and raccoon dogs, as well as in other wild carnivores.

The oral vaccination campaign will be carried out once a year, in the autumn (September -October). In Finland the total area covered will be 10 000 square km (9000 sqkm land area) and the total amount of vaccines delivered will be 180 000 by aerial distribution. The purchase of vaccines and the aerial distribution will be tendered with regular intervals.

Standard requirements for the submission of programme for eradication, control and surveillance

1.2. Benefits of the programme

Describe

- progress expected compared to the situation of the disease in the previous years, in line with the objectives and expected results
- cost efficiency of the programme including management costs

(max. 32000 chars) :

The objective of the programme is to prevent rabies from entering Finland and to maintain Finland rabies-free, as it has been since 1991.

The programme is cost-efficient, since the vaccination is carried out only once a year. Should rabies be reintroduced, the cost of eradication would be higher since it would be necessary to start vaccinating twice a year and perhaps in a larger area.

2. Description and demarcation of the geographical and administrative areas in which the programme is to be implemented

Provide the name and surface of the areas where the following activities are implemented (if administrative areas are not used, describe the natural or artificial boundaries used to determine the geographical areas)

- vaccination and monitoring
- surveillance

Attach maps

(max. 32000 chars) :

Finland : The vaccination zone is 40 km wide at the Southeastern border facing Russia, between the Gulf of Finland (part of the Baltic Sea) and Värtsilä in Tohmajärvi municipality. The area covers 9000 sqkm land area (ie. excluding lakes and rivers). A map is attached, where the vaccination zone is marked with red line and the unmarked areas in the vaccination zone are lakes. Monitoring of the effectiveness of the oral vaccination is carried out in the vaccination area. Passive surveillance is carried out in the whole territory of Finland.

3. Description of the disease control strategy of the eradication programme in accordance with Article 32 of Commission Delegated Regulation (EU) 2020/689

3.1. Notification of the disease

(max. 32000 chars) :

Rabies is a notifiable disease in Finland according to the Regulation (EU) 2016/429 of the European Parliament and of the Council (Carnivora, Bovidae, Suidae, Equidae, Cervidae, Camelidae), Animal Disease Act 76/2021 and Decree No 325/2021 of the Ministry of Agriculture and Forestry (other animals).

Standard requirements for the submission of programme for eradication, control and surveillance

Any operator or other natural person, including hunters and other wildlife specialists, who suspects rabies must as soon as practicable notify the suspicion to the competent authorities. Similarly, all veterinarians and diagnostic laboratories suspecting or confirming rabies must as soon as practicable notify the competent authority.

3.2. Target animals and estimation of the animal population

(max. 32000 chars) :

Foxes (*Vulpes vulpes*) and raccoon dogs (*Nyctereutes procyonoides*)

The population sizes of foxes and raccoon dogs in Finland have been estimated by Kauhala (2007) using multiple methods and data, including radio tracking of individual animals, hunting bag statistics, annual snow-track counts and knowledge on reproductive potential of each species. The estimated sizes of the total raccoon dog and fox population in Finland in the autumn were 230 000 individuals and 150 000 individuals, respectively. The average annual national hunting bags of raccoon dogs and foxes in 2011-2020 were 165 600 and 47 700 animals, respectively. In the vaccination zone, fox densities varied between 0.1-0.45 individuals per sqkm and raccoon dog densities between 0.2->0.75 individuals per sqkm according to the 2007 study by Kauhala. The considerable variation in habitat along the latitude affects the densities. Foxes and raccoon dogs are most abundant in regions with the highest human population density, which is the southern part of Finland.

3.3. Tests used and sampling schemes

Describe :

- a. the tests used for surveillance and monitoring, when are to be used and in which animals
- b. the sampling schemes in each area of the programme for surveillance and monitoring and details on the collection of dead animals

(max. 32000 chars) :

Foxes and raccoon dogs from the vaccination area are used for monitoring of the efficacy of the oral rabies vaccination programme (bait uptake and herd immunity). The intention is to sample 360 animals in all in Finland, i.e. at least 4 animals per 100 sqkm.

From the vaccination area in Finland, all submitted wild carnivores will be tested for the presence of rabies virus with emphasis on two key species, the red fox and the raccoon dog. The target amount is altogether 360 small carnivores with an intention to sample at least four animals per 100 square kilometers in the vaccination areas.

From the rest of the country, only indicator wild animals (animals found dead including road-kills and animals showing clinical signs or abnormal behavior) will be tested for rabies virus. Domestic animals from the whole country with rabies-like symptoms will be tested for rabies virus.

In conclusion active rabies surveillance (hunting) will be conducted only in vaccination area and passive surveillance (dead and ill animals) will cover entire Finland vaccination area included.

Tests used:

- for serological test: ELISA-test
- for microbiological or virological tests: Antigen-test (FAT), cultivation (MNA cells) of positive cases and negative cases of human exposure

Standard requirements for the submission of programme for eradication, control and surveillance

- a description of the other used tests: DNA/RNA-test (RT-PCR), sequencing of positive cases. FAT and/or RTCIT positive samples will be analysed with RT-PCR and positive RT-PCR samples will be further sequenced.
- FAT positives or samples with human and/or domestic animals exposure will be analysed in cell culture test RTCIT.
- for testing of bait marker (tetracycline): fluorescence microscopy of mandible and tooth sections
- age determination

3.4. Vaccines used and vaccination schemes

Describe

- vaccination of kept animals in the framework of the eradication programme
 - vaccine(s) to be used
 - targeted population
- vaccination of wild animals:
 - definition/demarcation of the vaccination area
 - frequency and expected dates of the vaccination campaigns
 - vaccine bait(s) to be used
 - vaccine bait distribution method and designed vaccine bait density
 - vaccination of stray dogs with the vaccine(s) to be used and the targeted population

(max. 32000 chars) :

The vaccine to be used in Finland in 2023 will be Rabitec (SPBN GASGAS), manufactured by Ceva. The vaccine has been selected through a public tendering procedure.

The baits will be distributed in the Finnish vaccination area in the autumn, in September - October. They will be distributed by an aircraft at a density of 20 baits per sqkm. The distance between the flight lines is 700-800 m. The flight speed is 100-160 km/h and the altitude is 60-90 m. A total of 180000 baits are distributed during one campaign. The flight lines are recorded in the GPS system. In addition the route is recorded into a separate GPS logger system and this data is then electronically transformed into flight lines on a map.

3.5. Measures in case of a positive result

Please describe the measures taken and if reinforced vaccination, surveillance or monitoring are foreseen.

(max. 32000 chars) :

Measures to be taken on positive rabies cases are defined in Commission Delegated Regulations (EU) 2020/687 and 2020/689 and in Finland's national legislation (Animal Disease Act (76/2021) and Decree of Ministry of Agriculture and Forestry 327/2021). Public health authorities are notified in all cases where a human exposure is possible. If a positive case of rabies is found in Finland, the competent authority will take the necessary measures to destroy the carcass and carry out an epidemiological investigation to find other animals and people who might have come in contact with the infected animal. The measures taken in regard of those animals depend on the nature of the contact and on whether the animal had been vaccinated against rabies or not. The Finnish Food Authority, who is responsible for carrying out the oral vaccination campaign in wild animals, will decide on whether there is a need to enlarge the area

Standard requirements for the submission of programme for eradication, control and surveillance

or increase the frequency of the vaccination campaign.

3.6 Awareness campaigns and other measures

- *Awareness campaigns :*
 - *Please describe the awareness raising campaigns to be implemented*
- *Other measures :*
 - *Please describe measures to be implemented to reduce the contact with infected animals*
 - *Please describe coordinated measures with other Member States or third countries, where relevant*

(max. 32000 chars) :

Information is distributed on the webpages of the Finnish Food Authority (www.ruokavirasto.fi), for example instructions on sending samples and information on rabies and vaccines. Press release is published every autumn before starting the oral vaccination campaign. No co-financing is requested for the awareness campaign.

B. General information

1. Organisation, supervision and role of all stakeholders involved in the programme

Describe :

- competent authorities (CA) involved in the implementation of the programme and their responsibilities
- other stakeholders involved in the implementation of the programme, their role and their communication channels with the CA.

(max. 32000 chars) :

The competent authority for implementing the programme in Finland is the Finnish Food Authority. The distribution of the vaccine is done by a private company which has been selected through a public tendering procedure.

Locally the control and monitoring of rabies is carried out by regional veterinary officers and municipal veterinary officers in Finland. Furthermore, all other veterinarians and also animal owners are responsible for notifying immediately official veterinarians when they suspect rabies.

Samples for the monitoring of the success of the vaccination campaign are collected in cooperation with the Finnish Wildlife Agency and local hunters and hunters' associations.

Standard requirements for the submission of programme for eradication, control and surveillance

2. Legal basis for the implementation of the programme

(max. 32000 chars):

The legal basis for programme in Finland are 15 § and 23 § in the Animal Disease Act (76/2021). In accordance with 15 § the Finnish Food Authority may carry out bait vaccinations of wild animals in order to prevent a category b disease. In accordance with 23 § the Finnish Food Authority shall monitor the general health of animals and the occurrence of animal diseases based on the notifications, laboratory examinations carried out by it, information and microbial and parasite strains sent by other laboratories, and statistical information on the cases of disease treated by veterinarians. The Finnish Food Authority may also conduct disease monitoring programmes on wild animals.

3. Historical data on the epidemiological situation, including:

a. a concise description of the following indicators:

- number of confirmed cases by listed animal species (excludes bat cases), during at least the past 5 years
- maps indicating the distribution of confirmed cases referred before per year, during at least the past 5 years
- disease control strategy and results of control measures, during at least the past 5 years
- number of rabies cases in previously (last year) free areas compared to previous year
- % of seroconversion in target species (juveniles/adult separately) compared to previous year
- % of vaccine uptake in target species (juveniles/adult separately) compared to previous year

b. an assessment of the evolution of the indicators along the years is requested as well as obstacles and constraints identified that hamper the progress of eradication.

(max. 32000 chars):

Rabies was common in Finland at the beginning of the 20th century, but it was eradicated through vaccination of the dog population in the 1950s. In April 1988, a local spot of essentially sylvatic rabies was discovered in southeastern Finland. The disease was eradicated by an oral bait vaccination campaign. No rabies cases have been found in wild carnivores since 1989. Rabies has been found in an imported horse in 2003, an imported dog in 2007, in a Daubenton's bat in 2009 (EBLV-2) and in 2016 (EBLV-2). In 2017, a novel lyssavirus was detected in Brandt's bat and was designated as Kotalahti bat lyssavirus (KBLV). Finland has been declared free of rabies since March 1991. In accordance with the Commission Implementing Regulation (EU) 2021/620 Finland has a disease-free status from infection with rabies virus.

Since the rabies outbreaks in 1988-1989, the reintroduction of rabies into Finland has been prevented by oral bait vaccination along the Southeastern border with Russia.

The vaccination was carried out once a year each autumn between 1991 and 2003. From 2004 to 2013 vaccinations were carried out twice a year, in the spring and in the autumn. In 2014 it was again decided to move to vaccination once a year, in the autumn, due to the favourable rabies situation in the area.

Standard requirements for the submission of programme for eradication, control and surveillance

4. Control on the implementation of the programme and Intermediate targets

4.1 Control on the implementation of the programme

Describe the system to control the implementation of the programme:

- flight tracks
- methods to be used to assess the correct vaccine bait distribution
- strategy to monitor the effectiveness of the vaccination as regards serology and vaccine bait uptake in the targeted animal population, the sampling schemes, with details on the collection of dead animals, and diagnostic methods
- measures to ensure the maintenance of the quality of the vaccine bait before it is distributed particularly as regards titration of the vaccine baits and controls of the cold chain (official controls to be performed on the vaccine)

4.2 Intermediate targets of the eradication programme:

- expected annual decrease of the number of outbreaks
- expected number of confirmed outbreaks in areas with outbreaks during the previous year
- expected percentage of sero-conversion in targeted animal populations
- expected percentage of vaccine uptake in animals of the targeted species

(max. 32000 chars):

In Finland, the flight lines are recorded in the GPS system. In addition the route is recorded into a separate GPS logger system and this data is then electronically transformed into flight lines on a map. The geographical position of release for each bait is recorded. The Finnish Food Authority controls the recorded flight routes and bait dropping data sent by the bait distributor.

The Finnish Food Authority is responsible for ensuring the cold chain. The manufacturer of the baits organises the cold transport from the manufacturer's storage to the premises of the Finnish Food Authority in Helsinki. There is a temperature logger within one of the parcels which is sent back to the manufacturer in order to ensure the cold chain during the transportation. In Helsinki, the baits are kept in a freezer at a temperature of -20 degrees C, this temperature is monitored twice a week. The baits are transferred to the airport in a van and the maximum time of transportation is 3 hours. At the airport, the baits are kept in a freezer at -20 degrees C, usually for less than 24 hours before the delivery of the baits. The titre of the vaccine virus is tested after the arrival of the baits in Helsinki with an accredited method before the batch is released to be used.

Monitoring the effectiveness of the vaccination is carried out by examining foxes and raccoon dogs from the oral vaccination area. Samples for the monitoring are collected in cooperation with the Finnish Wildlife Agency and local hunters and hunters' associations. The Finnish Food Authority prepares guidance for sampling. The Finnish Food Authority monitors the number of samples every 1-2 weeks. If necessary, hunters are contacted several times during the year to get enough samples. The intention is to sample 360 animals (raccoon dogs and foxes) from the oral vaccination area, i.e. at least 4 animals per 100 sqkm. The samples are tested serologically (ELISA-test) and for bait marker (tetracycline, fluorescence microscopy). Expected percentage of sero-conversion in targeted animal populations is 50 % and expected percentage of vaccine uptake in animals of the targeted species is 70 %.

Standard requirements for the submission of programme for eradication, control and surveillance

C. Targets

1. Tests to be carried out for the monitoring of the vaccination effectiveness

Targets for year: **2023**

Country	Region	Animal Species	Type of test	Test description	Number of tests	Expected number of positive results	% positive	
SUOMI / FINLAND	vaccination area	Fox	serological test	ELISA	100	50	50	X
SUOMI / FINLAND	vaccination area	Raccoon dogs	serological test	ELISA	260	130	50	X
SUOMI / FINLAND	vaccination area	Fox	presence of biomarker	Tetracycline in bones	100	70	70	X
SUOMI / FINLAND	vaccination area	Raccoon dogs	presence of biomarker	Tetracycline in bones	260	182	70	X
Totals :					720	432		
					Add a new row			
					Total tests Serological (FAVN) in MS	0		
					Total tests Serological (FAVN) in TC	0		
					Total tests Serological (ELISA) in MS	360		
					Total tests Serological (ELISA) in TC	0		
					Total tests Serological (Other) in MS	0		
					Total tests Serological (Other) in TC	0		
					Total tests presence of biomarker (Tetracycline in bones) in MS	360		
					Total tests presence of biomarker (Tetracycline in bones) in TC	0		
					Total tests presence of biomarker (Other) in MS	0		

Standard requirements for the submission of programme for eradication, control and surveillance

Total tests presence of biomarker (Other) in TC

0

2. Surveillance tests to be carried out

Targets for year : **2023**

Country	Region	Animal Species	Category	Test description	Number of tests	Expected number of positive results	
SUOMI / FINLAND		Fox	Suspect or dead animals	FAT	20	0	X
SUOMI / FINLAND		Raccoon dogs	Suspect or dead animals	FAT	20	0	X
SUOMI / FINLAND		Dogs	Suspect or dead animals	FAT	30	0	X
SUOMI / FINLAND		cats	Suspect or dead animals	FAT	10	0	X
SUOMI / FINLAND		cattle	Suspect or dead animals	FAT	1	0	X
SUOMI / FINLAND		sheep	Suspect or dead animals	FAT	1	0	X
SUOMI / FINLAND		goat	Suspect or dead animals	FAT	1	0	X
SUOMI / FINLAND		other wild carnivor	Suspect or dead animals	FAT	60	0	X
SUOMI / FINLAND		suspect animals, h	Suspect or dead animals	Virus isolation test	20	0	X
				Total	163	0	
Add a new row							

Standard requirements for the submission of programme for eradication, control and surveillance

Total tests FAT in MS	143
Total tests FAT in TC	0
Total PCR tests in MS	0
Total PCR tests in TC	0
Total tests Virus characterisation tests in MS	0
Total tests Virus characterisation tests in TC	0
Total tests Virus isolation tests in MS	20
Total tests Virus isolation tests in TC	0
Total other tests MS	0
Total other tests TC	0

3

Wildlife oral vaccination to be carried out

Targets for year: **2023**

Country	Region / area	Products used	Number of doses	Size of the vaccination area (km ²)	
SUOMI / FINLAND	southeast border	SPBN GASGAS	180000	9 000	X
Total			180 000		
				Add a new row	
Oral vaccine and baits made of SAD Bern strain in MS			0		
Oral vaccine and baits made of SAG2 strain in MS			0		
Oral vaccine and baits made of SAD B19 strain in MS			0		

Standard requirements for the submission of programme for eradication, control and surveillance

Oral vaccine and baits made of SAD Clone attenuated in MS	0	
Oral vaccine and baits made of SPBN GASGAS strain in MS	180 000	
Total Vaccines distributed	180 000	
Purchase and distribution of oral vaccine and bait in neighbouring TC	0	

(max. 32000 chars) :

4 Official control of oral vaccines to be carried out

Targets for year: **2023**

Country	Number of batches distributed	Number of batches controlled by the CA	Number of virus titrations performed	
SUOMI / FINLAND	1	1	3	X
Total	1		3	
			Add a new row	
Vaccine titration tests in MS			3	
Vaccine titration tests in TC			0	

2. 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 performs 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):

In Finland, hunters and other individuals send samples to the Finnish Food Authority. The Finnish Food Authority pays for delivery of foxes and raccoon dogs from the vaccination area to the laboratory using a special budget line.

Standard requirements for the submission of programme for eradication, control and surveillance

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):

All tests in Finland are performed at the National Reference Laboratory for rabies which is part of the Finnish Food Authority. The testing costs are paid from budget funds allocated to the reference laboratory as part of the annual Finnish Food Authority budget.

c) Implementing entities - **compensation**

(max. 32000 chars):

Normally no compensation is paid for wild animals. It is in principle possible to pay compensation for domestic animals which are killed as official suspects based on orders from the competent authority. In that case the compensation would be paid by the Finnish Food Authority from a special budget line. No co-financing is requested.

d) Implementing entities - **vaccination**: who provides the vaccine and who performs the vaccination? Who pays the vaccine? Who pays the vaccinator?

(max. 32000 chars):

In Finland, the vaccine is provided by a private company which is selected through a public tendering procedure. The distribution of the vaccine is done by another private company which is selected through a public tendering procedure. The vaccination is paid by the Finnish Food Authority from a special budget line.

Standard requirements for the submission of programme for eradication, control and surveillance

e) Implementing entities - **other essential measures**: who implements this measure? Who provides the equipment/service? Who pays?

(max. 32000 chars):

No other 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.

yes

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:

Standard requirements for the submission of programme for eradication, control and surveillance

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 :	