



**EUROPEAN COMMISSION**  
HEALTH & CONSUMERS DIRECTORATE-GENERAL  
Unit 04 - Veterinary Control Programmes

**SANCO/3933/2008**

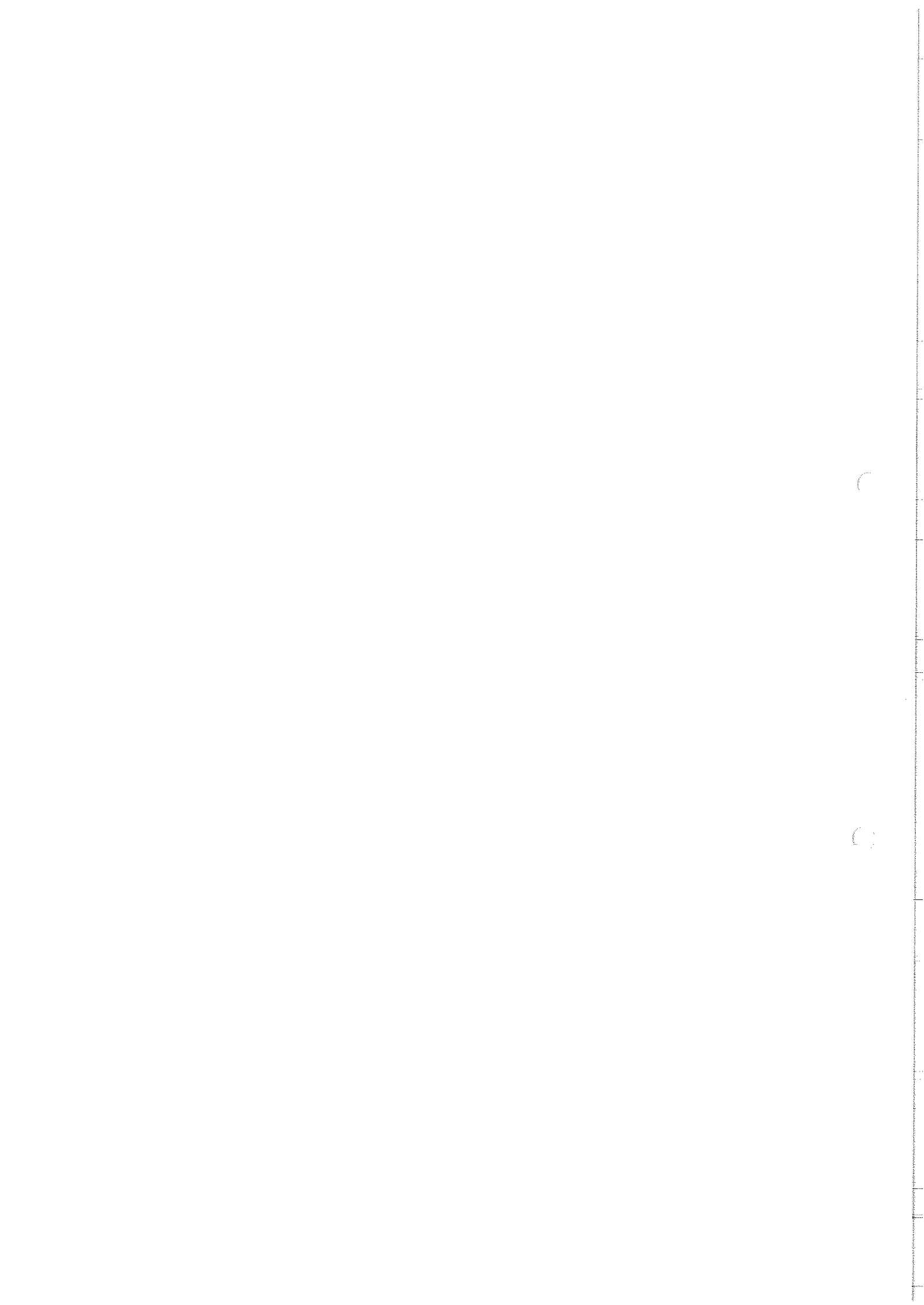
*Programmes for the eradication, control and monitoring of certain  
animal diseases and zoonoses*

## **Multi-annual programme for the eradication of Rabies**

**Approved\* for 2009 by Commission Decision 2008/897/EC**

**Estonia**

\* in accordance with Commission Decision 90/424/EEC



**Application from Estonia for Community financing for program for the eradication, monitoring and control of Rabies for years 2009 – 2011**

**1. Identification of the programme**

Member State: ESTONIA

Disease(s)<sup>1</sup>: RABIES

Request of Community co-financing for<sup>2</sup>: 2009 - 2011

Reference of this document: State Program on Monitoring and Surveillance of Animal Infectious Diseases

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<sup>1</sup> One document per disease is used unless all measures of the programme on the target population are used for the monitoring, control and eradication of different diseases.

<sup>2</sup> Indicate the year(s) for which co-financing is requested.

## 7. Targets

### 7.1. Targets related to testing

#### 7.1.1. *Targets on diagnostic tests*

##### Disease<sup>(a)</sup>: rabies 2009 Animal species: wild and domestic animals

Region <sup>(b)</sup>	Type of the test <sup>(c)</sup>	Target population <sup>(d)</sup>	Type of sample <sup>(e)</sup>	Objective <sup>(f)</sup>	Number of planned tests
Estonia	FAT	all animals with suspicion	brain tissue	confirmation of suspected cases	400
Estonia	PCR	all animals with suspicion	brain tissue	confirmation of suspected cases	100
Estonia	CC	all animals with suspicion	brain tissue	confirmation of suspected cases	100
Estonia	FAT	red fox, raccoon dog	brain tissue	monitoring of campaigns	3478
Estonia	TC detection	red fox, raccoon dog	mandibula, tooth	monitoring of campaigns	3478
Estonia	ELISA	red fox, raccoon dog	sera	monitoring of campaigns	3478
Estonia	PCR (sequencing)	red fox, raccoon dog	brain tissue	virus strain genotyping	10
Total					

##### Disease<sup>(a)</sup>: rabies 2010 Animal species: wild and domestic animals

Region <sup>(b)</sup>	Type of the test <sup>(c)</sup>	Target population <sup>(d)</sup>	Type of sample <sup>(e)</sup>	Objective <sup>(f)</sup>	Number of planned tests
Estonia	FAT	all animals with suspicion	brain tissue	confirmation of suspected cases	200
Estonia	PCR	all animals with suspicion	brain tissue	confirmation of suspected cases	70
Estonia	CC	all animals with suspicion	brain tissue	confirmation of suspected cases	70
Estonia	FAT	red fox, raccoon dog	brain tissue	monitoring of campaigns	3478
Estonia	TC detection	red fox, raccoon dog	mandibula, tooth	monitoring of campaigns	3478
Estonia	ELISA	red fox, raccoon dog	blood sera	monitoring of campaigns	3478
Estonia	PCR (sequencing)	red fox, raccoon dog	brain tissue	virus strain genotyping	10
Total					

**Disease<sup>(a)</sup>: rabies 2011**

**Animal species: wild and domestic animals**

Region <sup>(b)</sup>	Type of the test <sup>(c)</sup>	Target population <sup>(d)</sup>	Type of sample <sup>(e)</sup>	Objective <sup>(f)</sup>	Number of planned tests
Estonia	FAT	all animals with suspicion	brain tissue	confirmation of suspected cases	100
Estonia	PCR	all animals with suspicion	brain tissue	confirmation of suspected cases	50
Estonia	CC	all animals with suspicion	brain tissue	confirmation of suspected cases	50
Estonia	FAT	red fox, raccoon dog	brain tissue	monitoring of campaigns	3478
Estonia	TC detection	red fox, raccoon dog	mandibula, tooth	monitoring of campaigns	3478
Estonia	ELISA	red fox, raccoon dog	blood sera	monitoring of campaigns	3478
Estonia	PCR (sequencing)	red fox, raccoon dog	brain tissue	virus strain genotyping	10
Total					

- (a) Disease and species if necessary
- (b) Region as defined in the approved eradication programme of the Member State
- (c) Description of the test (for instance SN-test, AB-Elisa, RBT, ...)
- (d) Specification of the targeted species and the categories of targeted animals (for instance sex, age, breeding animal, slaughter animal, ...).
- (e) Description of the sample (for instance blood, serum, milk, ...)
- (f) Description of the objective (for instance qualification, surveillance, confirmation of suspected cases, monitoring of campaigns, seroconversion, control on deleted vaccines, testing of vaccine, control of vaccination, ...)

### 7.3. Targets on vaccination or treatment

#### 7.3.1. Targets on vaccination or treatment<sup>3</sup>

Pursuant to the Minister of Agriculture Regulation No. 67 "Rabies Control Rules" of 20.11.2000 (RTL 2000, 120, 1876) an animal owner is required to ensure that the cats and dogs belonging to him or her are vaccinated. The first vaccination of dogs and cats takes place when animal is 3-4 months old, onwards animals should be given booster vaccination once a year, preferably after 12 months of the last vaccination. The vaccination of farm animals that graze on woodland pastures and pastures adjacent to forests is recommended. Animals are vaccinated by veterinary supervisory officials, authorised veterinary surgeons or licensed veterinarians. In case we had obtained rabies free status the vaccination of pet animals remain compulsory, the vaccine and vaccination will not be covered by the state budget anymore but the animal owner will bear all the costs. For vaccination inactivated adjuvanted vaccine (Rabism) against rabies is used mainly.

Disease <sup>(a)</sup> : rabies	Animal species: domestic animals								
	Region <sup>(b)</sup>	Total number of herds <sup>(c)</sup> in vaccination or treatment programme	Total number of animals in vaccination or treatment programme	Targets on vaccination or treatment programme					
				Number of herds <sup>(c)</sup> in vaccination or treatment programme	Number of herds <sup>(c)</sup> expected to be vaccinated or treated	Number of animals expected to be vaccinated or treated	Number of doses of vaccine or treatment expected to be administered	Number of adults <sup>(d)</sup> expected to be vaccinated	Number of young <sup>(d)</sup> animals expected to be vaccinated
	Estonia 2009					120000	120000		
	Estonia 2010					120000	120000		
	Estonia 2011					120000	120000		
	Total								

- (a) Disease and species if necessary  
 (b) Region as defined in the approved eradication programme of the Member State  
 (c) Herds or flocks or holdings as appropriate  
 (d) Only for Bovine brucellosis and Ovine, Caprine brucellosis (*B. melienseis*) as defined in the programme

### 7.3.2. Targets on vaccination or treatment<sup>4</sup> of wildlife

Vaccine baits for oral vaccination of wild animals (reservoirs animals of rabies infection, red foxes and raccoon dogs) against rabies are distributed in the total territory (45 227 sq km) of vaccination approximately 20 baits per km (area suitable for distribution ~ 43 000 sq km). Vaccine used must be registered in Estonian State Agency of Medicine and/or registered at the European Community Register of veterinary medicinal products. Vaccine baits should be in compliance with European Pharmacopoeia no. 0746 "European monograph for live oral rabies vaccine for foxes". Vaccine should consist of bait casing attractive for the foxes and raccoon dogs and containing a capsule or a sachet consisting of live vaccine against rabies. The bait should contain a biomarker tetracycline (~150 mg/bait). The baits must fulfil WHO recommended criteria of efficacy, pathogenicity and stability. The minimum titer of the baits at the reception to Estonia must be  $10^{8.0}$  TCID per dose or equal. Rabies strain used in vaccine must be non pathogenic for target and non target species and must fulfil all safety criteria of recommendations formulated by the World Health Organization and of the recent scientific data. The rabies strain must have been tested for inocuity on several wild rodents species. The long lasting immunity should be guaranteed.

**Disease<sup>(a)</sup>: rabies**      **Animal species: red fox and raccoon dog**

Region <sup>(b)</sup>	Square km	Targets on the vaccination or treatment programme		
		Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered
ESTONIA 2009	43 000	860 000	2	1 720 000
ESTONIA 2010	43 000	860 000	2	1 720 000
ESTONIA 2011	43 000	860 000	2	1 720 000
Total				

(a) Disease and species if necessary

(b) Region as defined in the approved eradication programme of the Member State

8. **Detailed analysis of the cost of the programme (one table per year of implementation)**

Year 2009 Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
<b>1. Testing</b>					
<b>1.1. Cost of the analysis</b>					
	Test: FAT(fox, raccoon dog)	3478	29,97	104 236	yes
	Test: ELISA (fox, raccoon dog)	3478	21,54	74 916	yes
	Test: TC detection (fox, raccoon dog)	3478	17,00	59 126	yes
	Test: FAT (all suspected animals)	400	29,97	11 988	yes
	Test: PCR (all suspected animals)	100	39,86	3986	yes
	Test: cell culture (all suspected animals)	100	36,64	3664	yes
	Test :PCR (sequencing - in the case of positive result)	10	127,82	1278	yes
<b>1.2. Cost of sampling</b>	Hunting of foxes and raccoon dogs	3478	7,05	24 520	yes
<b>1.3. Other costs</b>	Taking of blood sample	3478	7,05	24 520	yes
	Transportation of samples	3478	5,42	18 851	yes
	Autopsy (fox, raccoon dog)	3478	5,82	20 242	yes
	Autopsy (all suspected animals)	400	19,56	7824	yes
<b>2. Vaccination or treatment</b>					
<b>2.1. Purchase of vaccine/treatment</b>	Vaccine baits for wild animals	1 720 000	0,89	1 530 800	yes
<b>2.2. Distribution costs</b>	Aerial distribution	90 454 km <sup>2</sup>	4,48/km <sup>2</sup>	405 234	yes



<i>2.3. Administering costs</i>							
<i>2.4. Control costs</i>							
<i>3. Slaughter and destruction</i>							
<i>3.1. Compensation of animals</i>							
<i>3.2. Transport costs</i>							
<i>3.3. Destruction costs</i>							
<i>3.4. Loss in case of slaughtering</i>							
<i>3.5 Costs from treatment of products (milk, eggs, hatching eggs, etc)</i>							
<i>4. Cleaning and disinfection</i>							

5. Salaries (staff contracted for the programme only)						
6. Consumables and specific equipment						
7. Other costs	Awareness campaign concerning OV	2	27 081	54 162		yes
<b>TOTAL</b>				<b>2 345 347</b>		

Year 2010 Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
<b>1. Testing</b>					
<b>1.1. Cost of the analysis</b>					
	Test: FAT(fox, raccoon dog)	3478	32,97	114 670	yes
	Test: ELISA (fox, raccoon dog)	3478	23,69	82 394	yes
	Test: TC detection (fox, raccoon dog)	3478	18,70	65 039	yes
	Test: FAT (all suspected animals)	200	32,97	6594	yes
	Test: PCR (all suspected animals)	70	43,85	3070	yes
	Test: cell culture (all suspected animals)	70	40,30	2821	yes
	Test :PCR (sequencing - in the case of positive result)	10	140,60	1406	yes
<b>1.2. Cost of sampling</b>					
	Hunting of foxes and raccoon dogs	3478	7,59	26 398	yes
	Taking of blood sample	3478	7,59	26 398	yes
<b>1.3. Other costs</b>					
	Transportation of samples	3478	5,96	20 729	yes
	Autopsy (fox, raccoon dog)	3478	6,40	22 259	yes
	Autopsy (all suspected animals)	200	21,52	4304	yes
<b>2. Vaccination or treatment</b>					
<b>2.1. Purchase of vaccine/treatment</b>					
	Vaccine baits for wild animals	1 720 000	0,98	1 685 600	yes
<b>2.2. Distribution costs</b>					
	Aerial distribution	90 454 km <sup>2</sup>	4,93/km <sup>2</sup>	445 938	yes



<i>5. Salaries (staff contracted for the programme only)</i>							
<i>6. Consumables and specific equipment</i>							
<i>7. Other costs</i>	<i>Awareness campaign concerning OY</i>	<i>2</i>	<i>29 789</i>	<i>59 578</i>	<i>yes</i>		
<b>TOTAL</b>						<b>2 567 198</b>	

<i>Year 2011 Costs related to</i>	<i>Specification</i>	<i>Number of units</i>	<i>Unitary cost in €</i>	<i>Total amount in €</i>	<i>Community funding requested (yes/no)</i>
<i>1. Testing</i>					
<i>1.1. Cost of the analysis</i>					
	<i>Test: FAT(fox, raccoon dog)</i>	3478	36,27	126 147	yes
	<i>Test: ELISA (fox, raccoon dog)</i>	3478	26,06	90 637	yes
	<i>Test: TC detection (fox, raccoon dog)</i>	3478	20,57	71 542	yes
	<i>Test: FAT (all suspected animals)</i>	100	36,27	3627	yes
	<i>Test: PCR (all suspected animals)</i>	50	48,24	2412	yes
	<i>Test: cell culture (all suspected animals)</i>	50	44,33	2217	yes
	<i>Test :PCR (sequencing - in the case of positive result)</i>	10	154,66	1547	yes
<i>1.2. Cost of sampling</i>	<i>Hunting of foxes and raccoon dogs</i>	3478	8,18	28 450	yes
	<i>Taking of blood sample</i>	3478	8,18	28 450	yes
<i>1.3. Other costs</i>	<i>Transportation of samples</i>	3478	6,56	22 816	yes
	<i>Autopsy (fox, raccoon dog)</i>	3478	7,04	24 485	yes
	<i>Autopsy (all suspected animals)</i>	100	23,67	2367	yes
<i>2. Vaccination or treatment</i>					
<i>2.1. Purchase of vaccine/treatment</i>	<i>Vaccine baits for wild animals</i>	1 720 000	1,08	1 857 600	yes
<i>2.2. Distribution costs</i>	<i>Aerial distribution</i>	90 454 km <sup>2</sup>	5,42/km <sup>2</sup>	490261	yes

<i>2.3. Administering costs</i>					
<i>2.4. Control costs</i>					
<i>3. Slaughter and destruction</i>					
<i>3.1. Compensation of animals</i>					
<i>3.2. Transport costs</i>					
<i>3.3. Destruction costs</i>					
<i>3.4. Loss in case of slaughtering</i>					
<i>3.5. Costs from treatment of products (milk, eggs, hatching eggs, etc)</i>					
<i>4. Cleaning and disinfection</i>					

5. Salaries (staff contracted for the programme only)								
6. Consumables and specific equipment								
7. Other costs								
Awareness campaign concerning OV							2	32 768
<b>TOTAL</b>							<b>65 536</b>	<b>2 818 094</b>
							yes	

