About this dossier

Output on: 2021/02/01 15:55 (Europe/Luxembourg)

Last updated: 2020/11/05 08:18

Status: closed (submitted)

Created: 2020/05/22 15:18

Eradication: Final report for Rabies 2019

For each approved annual or multi-annual programme Member States shall submit to the Commission by the 30 April each year an annual detailed technical and financial report covering the previous year. That report shall include the results achieved and a detailed account of eligible costs incurred (Art 14 of Regulation (EU) No 652/2014).

This form is for information only, no submission possible.

ID: 20200522-ZX83UOCB

Country code: EL

Reporting period

From: 2019 **To:** 2019 **Year of implementation:** 2019

1. Technical implementation of the programme

1.1 Description and evaluation of the evolution of the epidemiological situation, the technical implementation of the activities foreseen under the programme and the cost-effectiveness of the programme.

The last rabies case in animals was detected in the Evros prefecture in 1987. Nevertheless, the reoccurrence of the disease in Greece in 2012 could not be characterized as unexpected due to several observations. At first, there was a high prevalence of the disease in neighboring countries such as Turkey, Bulgaria, Albania and FYROM. This supported concerns for trans-border rabies spread in Greece. Taking into consideration this situation, in 2012, the pre-existing national program for rabies passive surveillance according to Directive 99/2003/EC was enhanced imposing the collection of all dead and suspected for rabies animals from 16 regional units along the northern and eastern borders of the country.
In October 2012 rabies was diagnosed in a red fox (Vulpes vulpes) in Kozani Regional Unit. By the end of 2012 nine positive cases were confirmed by the National Reference Laboratory for rabies. The partial sequencing analysis and the subsequent phylogenetic analysis supported the hypothesis of movement of rabies-infected hosts in Western Balkan countries.
To address the epidemic and prevent its spread, a Greek National Rabies control and eradication programme was implemented based on the passive surveillance of the disease. Following the identification of the infected fox, the collection of samples from dead animals was extended on the entire country with a main aim to achieve a more efficient surveillance of the disease. The mandatory vaccination of all dogs and cats, the management of all rabies–suspect animals and the control in animal movements were other imposed measures for the prevention of the disease.

Until 28 May 2020, in the framework of the passive surveillance of the disease, a total of 48 rabid animals have been confirmed by the National Reference Laboratory for Rabies in animals (NRL), which is the Virology Laboratory in Athens Veterinary Center. The last rabies case was confirmed in a red fox in Pella Regional Unit in May 2014. In detail, nine (7 foxes, 2 dogs), twenty nine (25 foxes, 1 dog, 1 cat, 2 cattle) and ten (8 foxes, 2 dogs) rabies cases were laboratory confirmed in 2012, 2013 and 2014 respectively. Since then no new cases have been recorded.
There is no reliable data source in Greece concerning animal wildlife population (e.g. Red Foxes).

The immunization of wildlife via oral vaccination campaigns is regarded as one of the basic pillars of the Rabies Eradication Programme.
After the outbreak and with the support of the EU, an Oral Vaccination programme for the immunization of red foxes against rabies was launched in Greece. The first vaccination campaign took place in autumn/winter 2013, the second in autumn/winter 2014, the third in autumn/winter 2015, the 4th in spring 2016, the 5th in autumn 2016, the 6th and 7th ORV campaigns in spring and autumn 2017, the 8th and 9th campaigns in spring and autumn 2018 and the 10th and 11th 2019 campaigns respectively.
The vaccine selected for 2018 (spring and autumn) oral vaccination campaigns and also for 2019 (10th and 11th ORV) and 2020 in Greece is the Lysvulpen, BIOVETA (SAD Bern vaccine).
A three-year framework contract, co-signed by the Ministry of Rural Development and Food together with the Vaccine-baits producer company and the aerial distribution company ensures the availability and the normal supply of vaccine-baits for 2018 and the next 2 years (2019-2020), while maintaining and ensuring prices stability.
The Regional Units involved in the program for both campaigns starting from autumn 2016 campaign are the following: Thessaloniki, Kilkis, Pella, Pieria, Imathia, Kozani, Kastoria, Florina, Ioannina, Preveza (part), Arta, Aetolia Acarnania (part), Evritania (part), Larisa, Karditsa, Trikala, Evros, Xanthi, Rodopi, Kavala, Drama, Serres, Chalkidiki, Grevena.
The initial estimation of the number of vaccines needed for the given vaccination area, together with the co-estimation about the previous campaigns has shown that it is a number that ensures the adequacy that is efficient for the distribution agreed under the tender requirements.
Vaccine-baits are aerially distributed by fixed-wind aircrafts, in the 24 regional units of the country, as technically planned. Vaccines are dropped along parallel flight paths 500 m apart from each other, in order to optimize aerial dropping and achieve homogeneous distribution. The whole dropping process is taking place and is being monitored by a special automatic device equipped with GPS receiver, provided by the baits manufacturer (BIOVETA, SA). This equipment is installed in each aircraft, registering and sending the dropping coordinates of each bait “real-time” both to the competent authority and the aerial distribution company. The whole procedure is supervised by Official Veterinarians of the Regional Units involved in the campaigns.
A great effort is being made throughout the year in order to increase the number of animals collected.

In addition, a new tv spot has been produced in order to increase public awareness in an effort to improve the surveillance and the procedure of notification to the competent authorities of the animals that are found dead by the general public.
It should be mentioned that the hunting period starts in Greece late in August and lasts until the end of February, a fact that affects the number of foxes delivered for analysis at the laboratory outside that period. In the framework of the spring campaign, foxes are collected only by forestry officers, game keepers and hunters and these missions are organized by the forestry services specifically for this purpose. Weather conditions affect ORV implementation, especially by their variability.
The last rabies case in animals was detected in the Evros prefecture in 1987. Nevertheless, the reoccurrence of the disease in Greece in 2012 could not be characterized as unexpected due to several observations. At first, there was a high prevalence of the disease in neighboring countries such as Turkey, Bulgaria, Albania and FYROM. This supported concerns for trans-border rabies spread in Greece. Taking into consideration this situation, in 2012, the pre-existing national program for rabies passive surveillance according to Directive 99/2003/EC was enhanced imposing the collection of all dead and suspected for rabies animals from 16 regional units along the northern and eastern borders of the country.
In October 2012 rabies was diagnosed in a red fox (Vulpes vulpes) in Kozani Regional Unit. By the end of 2012 nine positive cases were confirmed by the National Reference Laboratory for rabies. The partial sequencing analysis and the subsequent phylogenetic analysis supported the hypothesis of movement of rabies-infected hosts in Western Balkan countries.
To address the epidemic and prevent its spread, a Greek National Rabies control and eradication programme was implemented based on the passive surveillance of the disease. Following the identification of the infected fox, the collection of samples from dead animals was extended on the entire country with a main aim to achieve a more efficient surveillance of the disease. The mandatory vaccination of all dogs and cats, the management of all rabies–suspect animals and the control in animal movements were other imposed measures for the prevention of the disease.
Until 28 May 2020, in the framework of the passive surveillance of the disease, a total of 48 rabid animals have been confirmed by the National Reference Laboratory for Rabies in animals (NRL), which is the Virology Laboratory in Athens Veterinary Center. The last rabies case was confirmed in a red fox in Pella

Regional Unit in May 2014. In detail, nine (7 foxes, 2 dogs), twenty nine (25 foxes, 1 dog, 1 cat, 2 cattle) and ten (8 foxes, 2 dogs) rabies cases were laboratory confirmed in 2012, 2013 and 2014 respectively. Since then no new cases have been recorded.
There is no reliable data source in Greece concerning animal wildlife population (e.g. Red Foxes).

The immunization of wildlife via oral vaccination campaigns is regarded as one of the basic pillars of the Rabies Eradication Programme.
After the outbreak and with the support of the EU, an Oral Vaccination programme for the immunization of red foxes against rabies was launched in Greece. The first vaccination campaign took place in autumn/winter 2013, the second in autumn/winter 2014, the third in autumn/winter 2015, the 4th in spring 2016, the 5th in autumn 2016, the 6th and 7th ORV campaigns in spring and autumn 2017, the 8th and 9th campaigns in spring and autumn 2018 and the 10th and 11th 2019 campaigns respectively.
The vaccine selected for 2018 (spring and autumn) oral vaccination campaigns and also for 2019 (10th and 11th ORV) and 2020 in Greece is the Lysvulpen, BIOVETA (SAD Bern vaccine).
A three-year framework contract, co-signed by the Ministry of Rural Development and Food together with the Vaccine-baits producer company and the aerial distribution company ensures the availability and the normal supply of vaccine-baits for 2018 and the next 2 years (2019-2020), while maintaining and ensuring prices stability.
The Regional Units involved in the program for both campaigns starting from autumn 2016 campaign are the following: Thessaloniki, Kilkis, Pella, Pieria, Imathia, Kozani, Kastoria, Florina, Ioannina, Preveza (part), Arta, Aetolia Acarnania (part), Evritania (part), Larisa, Karditsa, Trikala, Evros, Xanthi, Rodopi, Kavala, Drama, Serres, Chalkidiki, Grevena.
The initial estimation of the number of vaccines needed for the given vaccination area, together with the co-estimation about the previous campaigns has shown that it is a number that ensures the adequacy that is efficient for the distribution agreed under the tender requirements.
Vaccine-baits are aerially distributed by fixed-wind aircrafts, in the 24 regional units of the country, as technically planned. Vaccines are dropped along parallel flight paths 500 m apart from each other, in order to optimize aerial dropping and achieve homogeneous distribution. The whole dropping process is taking place and is being monitored by a special automatic device equipped with GPS receiver, provided by the baits manufacturer (BIOVETA, SA). This equipment is installed in each aircraft, registering and sending the dropping coordinates of each bait “real-time” both to the competent authority and the aerial distribution company. The whole procedure is supervised by Official Veterinarians of the Regional Units involved in the campaigns.
A great effort is being made throughout the year in order to increase the number of animals collected.

In addition, a new tv spot has been produced in order to increase public awareness in an effort to improve the surveillance and the procedure of notification to the competent authorities of the animals that are found dead by the general public.
It should be mentioned that the hunting period starts in Greece late in August and lasts until the end of February, a fact that affects the number of foxes delivered for analysis at the laboratory outside that period. In the framework of the spring campaign, foxes are collected only by forestry officers, game keepers and hunters and these missions are organized by the forestry services specifically for this purpose.
Weather conditions affect ORV implementation, especially by their variability.

SPRING 2019 CAMPAIGN
The spring 2018 campaign started on 03.04.2019 and lasted until 11.05.2019
The total number of vaccines ordered for the spring 2018 campaign was 1.490.100 baits.
As for the previous campaigns, the producer company, BIOVETA, A.S. informed us, in written, that in each of the boxes dispatched they had included 0,3% more vaccine-baits, approximately (estimated range of vaccine baits delivered: a number from 1.490.100 to1.490.100+0.3%=1.495.473), for testing requirements or any other inconvenience. It is worth mentioning that BIOVETA, A.S. claims compensation for only the 1.490.100 baits that were initially agreed to deliver within the CCA.
The area of vaccination for the spring of 2019 is the same as in previous campaigns.
The vaccinated area covered extended to 54834 km2.
A communication campaign (posters and leaflets, TV spot, special educational material and courses for children in schools) has been launched following all the previous campaigns.
The number of baits available for distribution was 140 baits less than those delivered in Greece (for sampling and titration purposes before aerial distribution).
-80 samples (50 sent to the EURL immediately for titration and 30 remained into the fridge and then were sent to the EURL later on),
-10 baits remained to the airfield for a few days before been sent to the EURL for titration
-50 counter samples were stored in the fridge on the Greek NRL.
According to current national legislation and tender requirements, the cost regarding the qualitative control (titration) of vaccines is totally undertaken by the contractor.
The total number of baits aerially distributed was 1.491.441, within the estimated range.

A number of 917 vaccine baits have been recorded to be released outside country’s continental territory. It seems to have been recorded during aircraft turns beyond areas that share borders with the sea.
In addition, a number of 1424 baits have been distributed outside the vaccination area. During the air drops, it was not possible for the aircraft responsible for baits distribution, to avoid dropping of baits in the areas of Fthiotida, Magnisia and Thesprotia when flying in areas which were involved in the vaccination program and shared the same borders with the above regional units.
The vaccines manufacturer delivered successfully all the quantities of vaccines in one shipment, to the Ministry of Rural Development and Food.
The evaluation of the bait distribution densities for the spring 2019 ORV campaign, as illustrated on the map of each vaccinated regional unit, has been performed with the collaboration of our Service and the Topography Service of the Ministry. In total, the distribution can be considered satisfactory. (Attached File named 2019 SPRING Densities.pdf).
Monitoring the effectiveness of 2019 spring ORV campaign
The monitoring period for assessing the effectiveness of spring 2019 ORV campaign started -depending on the Regional Unit- on May 2019 or June 2019 and was extended up to 30 September 2019, just before the initiation of the autumn 2019 campaign.
Following spring 2019 campaign and for the needs of the monitoring programme, during the period May-September 2019, samples derived by 191 hunted foxes have been delivered to the NRL.
The results obtained following the analysis of samples of monitoring the spring 2018 campaign, could be summarized as follows:
Seroconversion
While the total number of samples appropriate for seroconversion counted 170, 58 of them originated from adult animals and the rest (111) from juveniles. As far as the total number of animals collected is concerned, 101 of them (59.41%) tested seronegative and 69 of them (40.59%) seropositive. So, among samples derived by juvenile population, 75 (67.5%) were negative and 36 (32,43%) were positive. Among samples derived by adult population, 26 (44.83%) were negative, while 32 out of the 78 blood samples were seropositive (55.17%) .
TTC detection
Regarding the detection of TTC line in animal’s teeth (TTC intake not depending on the ORV campaign), 24 out of 127 samples derived by juvenilles (18.90%) was positive.
In samples obtained by adult animals, the 62 out of the 63 (98.41%) showed TTC intake.
Our goal is to promote the collection of adult animals and this is underlined in circulars distributed to every party involved.
The results are also illustrated in graphs, in the attached file named Monitoring Results following spring 2019 campaign.
AUTUMN 2019 CAMPAIGN
The autumn 2019 campaign started on the 10th of October and lasted till the 9th of November.
The Lysvulpen vaccine was used for the autumn 2019 campaign. The total number of vaccines ordered for the autumn 2019 campaign was 1.490.100 baits.
Samples from all batches were sent to the EURL for titration at the beginning of the programme, while bait samples from main batches remained at the cold facilities where baits were stored until their last delivery to the airfields. Regarding temperature conditions, except the controls made on the registers of the store facilities official veterinarians who monitored the loading of vaccines used calibrated thermometers to record the temperature in the vaccine storage areas.
In all cases the conditions considered accepted with the ones required for storing the vaccine on the basis of the relevant SPC.
The co-signed framework contract with the vaccine producer and the aerial distribution company as well, has secured timely delivery of the agreed vaccine number in one delivery.
The producer company, BIOVETA, A.S. informed us, in written, that in each of the boxes dispatched, they had included 0,3, approximately. For this reason the estimated range of the baits available has been between 1.490.100 and 1.495.473,3. It is worth mentioning that BIOVETA, A.S. claims compensation for only the 1.490.100 baits that were initially agreed to deliver within the CCA.
The Regional Units covered by the program for the autumn 2019 campaign were the following: Thessaloniki, Kilkis, Pella, Pieria, Imathia, Kozani, Kastoria, Florina (part), Ioannina, Preveza (part), Arta, Aetolia acarnania (part), Evritania (part), Larisa, Karditsa, Trikala, Evros, Xanti, Rodopi, Kavala, Drama, Serres, Chalkidiki, Grevena.
The vaccinated area covered extended to 54649 km.
A communication campaign (posters and leaflets, a new TV spot, special educational material and courses for children in schools) has been launched following all the previous campaigns.
The number of baits available for distribution was 140 baits less than those delivered in Greece (for sampling and titration purposes before aerial distribution).
-80 samples (50 sent to the EURL immediately for titration and 30 remained into the fridge and then were sent to the EURL later on),
-10 baits remained to the airfield for a few days before been sent to the EURL for titration.
-50 counter samples were stored in the fridge on the Greek NRL.
According to current national legislation and tender requirements, the cost regarding the qualitative control

(titration) of vaccines is totally undertaken by the contractor.
The total number of baits aerially distributed was 1.491.875 , within the estimated range.
In addition, a number of 1411 baits have been distributed outside the vaccination area. During the air drops, it was not possible for the aircraft responsible for baits distribution, to avoid dropping of baits in the areas of Fthiotida, Magnisia and Thesprotia and beyond the borders, when flying in areas which were involved in the vaccination program and shared the same borders with the above regional units.
A number of 719 vaccine baits have been recorded to be released outside country's continental territory. It seems to have been recorded during aircraft turns beyond districts that share borders with sea.
The results of the vaccines samples qualitative tests performed by the EURL were accepted.
The evaluation of the baits distribution densities for the autumn 2019 ORV campaign as illustrated on the map of each vaccinated regional unit has been performed with the collaboration of our Service and the Topography Service of the Ministry, and in total, the distribution can be considered satisfactory. (Attached File named 2019 AUTUMN Densities.pdf).
Monitoring the effectiveness of ORV 2019 autumn campaign
The monitoring period for assessing the effectiveness of autumn 2019 ORV campaign started in November-Devember 2019 -depending on the Regional Unit- and was extended up to 31 March 2020, before the initiation of the spring 2020 campaign.
Following autumn 2019 campaign and for the needs of the monitoring programme, samples derived by 270 hunted foxes were delivered to the NRL until 25.5.2020.
TTC detection
Regarding the detection of TTC line in animal's teeth (TTC intake not depending on the ORV campaign), 124 out of 141 samples derived by juveniles (87.9%) was positive.
In samples obtained by adult animals, 126 out of 128 samples delivered for analysis (98.4%) showed TTC uptake.
The results are also illustrated in graphs, in the attached file named Monitoring Results following spring 2019 campaign.
Results by the samples that have been already analyzed:
Seroconversion
Total number of samples appropriate for seroconversion counted 230. 116 of them originated from adult animals and the rest (114) from juveniles.
As far as the total number of animals collected is concerned, 81 of them (35.22%) tested seronegative and 149 of them (64.78%) seropositive.
Among samples derived by juveniles, 59 out of 114 blood samples tested, were seropositive (51.75%) and 55 (48.25%) were negative. Among samples derived by adult animals, 90 out of 116 blood samples (77.59%) were seropositive while 26 out of 116 blood samples were negative (22.41%).
TTC detection
Regarding the detection of TTC line in animals' teeth (intake of the campaign non depending on the ORV campaign of intake), 124 out of 141 samples by juvenilles (87.94%) were positive.
In samples obtained by adult animals, 2 out of 128 teeth samples tested, showed TTC uptake (98.44%).
A reminder circular has been distributed again in game keepers, hunters and forestry officers as well as in regional veterinary authorities mentioning the importance of collection of adult foxes instead of juveniles.
Monitoring the effectiveness of ORV 2018 autumn campaign
The monitoring period for assessing the effectiveness of autumn 2018 ORV campaign started in November-December 2017 -depending on the Regional Unit- and was extended up to 31 March 2019.
These final monitoring results for ORV 2018 autumn campaign are described here under:
The total number of animals collected were 343, while total number of blood samples appropriate for seroconversion counted 262. 131 out of 262 samples originated from adult animals and the rest (131) from juveniles. As far as the total number of animals collected is concerned, 99 of them (37.7%) tested seronegative and 162 of them (62%) seropositive. So, among 131 samples derived by juvenile population, 65 (49.6%) were negative and 66 (50%) were positive. Among samples derived by adult population, 34 (26%) were negative, while 97 out of 131 blood samples were seropositive (74%) .
TTC detection
Regarding the detection of TTC line in animal's teeth (TTC intake not depending on the ORV campaign), 150 out of 174 samples derived by juvenilles (86%) were positive.
Regarding adult population, 164 out of 168 samples delivered for analysis (97.6%) showed TTC uptake.
The results are also illustrated in graphs, in the attached file named Monitoring Results following autumn 2018 campaign.
Cost effectiveness of the programme
The oral vaccination campaigns conducted for a period of years in Greece, together with the other countries of the South Eastern borders of Europe and the surveillance performed thereby, seem to have effectively immunized wildlife population, as no new rabies case has been detected since 2014. During the GF-TAD's Rabies meeting in Brussels, in February 2019, the intergovernmental cooperation of the South Eastern countries was encouraged and enhanced. Therefore, it could be suggested that the absence of any other sample positive in rabies, since May 2014, is related both to the wildlife immunization in the country as well as the respective ORV vaccination programs conducted in countries sharing borders with Greece.
The significant sampling increase in the frame of Passive Surveillance from 2016 (especially in the second

semester) and the improved surveillance in years 2017 and 2018, provide us the opportunity to conclude more accurately that in Regional Units whereas surveillance is really enhanced (Grevena, Serres, Pieria etc) rabies virus is most likely not circulating undetected. However, we cannot reach to the same conclusions for Regional Units with a limited number of samples in the frame of passive surveillance.
In general, although the expenditure of the ORV vaccination programs remains significant, we may assume that the situation is being improved. In the following years the implementation of ORV campaigns as well as further improvement in the sampling size of Passive surveillance in areas where it remained low, may contribute to the regain of the free rabies health status of the country and respectively the reduction of the expenditure related to the control of the disease (costs related to the Rabies control Program in animals as well as the costs needed in the human sector (PEP prophylaxis etc). According to the epidemiological data in our country and in other neighboring countries, a modification of vaccination area may be reconsidered (e.g. only for high risk areas only). In the frame of the 1rst GF-TAD's Rabies meeting during February, the cooperation of the South-East European countries was encouraged as a prerequisite for further efficacy and achievements.
In addition, the 3-year framework contract co-signed between the Greek Ministry of Rural Development and Food, the Vaccine-baits producer company and the aerial distribution company reassures the availability and the normal supply of vaccine-baits for the next 2 years (2019-2020), while maintaining and ensuring fixed prices for the goods and services supplied.
Problems in the Organization of the next vaccination campaigns –COVID-19 restristions
Although the financial procedure – including the activation of the three-years framework contract – was completed on time, measures taken by the Greek government in order to address the pandemic and the priority given to the confrontation of all public health issues linked to it, placed specific provisional obstacles regarding the aerial distribution and its supervision on central and regional level. In particular, there was a prohibition of entrance to the country for those coming from abroad, but also a restriction of movements within the country. Moreover, all of the official veterinary authorities who already experience major problems due to lack of personnel are in the face of further downsizing related to national safety directives. Given that for the implementation of the areal distribution of the anti-rabies vaccines a team of about twenty people is needed, movement restrictions and bans of circulation, along with staff shortage, make it very difficult to be implemented. A great effort was made by the Directorate General of Veterinary Science of the Ministry of Agricultural Development and Food together with the National Organization of Public Health. Their successful collaboration managed the initiation spring 2020 campaign. So, the 12th ORV campaign is in progress and will be completed in mid June 2020.
Other problems in the framework of COVID-19 pandemic include difficulties in samples transportation from the Regional Veterinary Authorities to the NRL, the increase of prices for these transportation, special purpose leaves etc
The autumn 2020 campaign is scheduled to take place in October-November 2020.

1.2 Details on the level of achievement of the targets set in the approved programme and technical difficulties.

Passive surveillance
In total, 790 brain samples from animals (dead, suspect for rabies, related to human exposures) were delivered to the NRL in 2019. All these samples are negative for rabies virus.
Although the number of samples collected is considered quite satisfactory, sampling still remains not homogenous among all regional units in the country.
Please, find attached a diagram, named Surveillance Rabies Greece 2019.docx,
In order to improve the awareness and cooperation of all the programme stakeholders, a new poster and leaflets and a new video are prepared.
Monitoring the effectiveness of ORV campaigns in 2019. Evaluation of the annual monitoring programme following the 2019 spring and autumn ORV campaigns
Assessing monitoring results for 2019 in total (independent of the vaccination period and taking into account that a number of samples collected following autumn 2019 have not been analyzed yet and are not included in this assessment), we get the following results:
A total of 461 animals have been tested so far.
Seroconversion
Among samples derived by juveniles (225 blood samples in total), 95 out of 225 (42.2%) were seropositive.
Among samples derived by adult animals, 102 out of 174 blood samples (58.6%) were seropositive.
TTC detection
In a sample of total 459 teeth (268 coming from juveniles and 191 from adults), there was detection of TTC line, in 128 out of 268 samples by juvenilles (47.7%- positive). In samples obtained by adult animals, 188 out of 191 (98.4%) teeth samples tested, showed TTC uptake.
As for the previous years, the recommended sample size of a minimum of 4 foxes/100 km 2 per year, was difficult to achieve, due to already known reasons: patchy geomorphologic relief, prohibition of ridged guns and scopes (by law), and the fact that fox hunting is not common in Greece. Thus the lack of experience by the Greek hunters, does not facilitate the fox hunting procedure. Hunting federations declare that even if many missions are being performed, it is really difficult to find, shoot and finally hunt a fox.
A different responsiveness of hunters among different Regional Units is recorded, even if these areas are in

close proximity (in the same Region for example) and even if the same awareness campaigns have been performed.

1.3 Epidemiological maps for infection and other relevant data on the disease/activities (information on serotypes involved,...) (Please attach files of data using the PDF attachement feature) Use the textbox below to provide clarifications for the maps you attach, if needed.

No case since May 2014.

ANNEX VI TECHNICAL REPORT ON RABIES PROGRAMMES

VERY IMPORTANT: Please fill out the following tables with figures corresponding to measures performed during the implementing period (1/1 to 31/12).

Table A1 - TEST FOR THE MONITORING OF VACCINATION EFFECTIVENESS

Region	Species and age	Type of test	Test description	Number of tests	Number positive	% positive
Trikala R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	42	3	7.14 %
Trikala R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	25	9	36 %
Trikala R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	26	7	26.92 %
Trikala R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	38	31	81.58 %
Trikala R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	42	13	30.95 %
Trikala R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	26	25	96.15 %
Trikala R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	26	23	88.46 %
Trikala R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	39	39	100 %
Serres R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	20	9	45 %
Serres R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	10	5	50 %
Serres R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	20	3	15 %
Serres R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	10	10	100 %
Serres R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	43	30	69.77 %
Serres R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	36	26	72.22 %
Serres R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	44	41	93.18 %
Serres R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	36	35	97.22 %
Grevena r.U Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	17	9	52.94 %
Grevena r.U Spring	Foxes adult	Serological	VNT/FAVN/ELISA	10	7	70 %
Grevena r.U Spring	Foxes juvenile	Biomarker	Tetracycline in bones	19	4	21.05 %
Grevena r.U Spring	Foxes adult	Biomarker	Tetracycline in bones	11	11	100 %
Grevena R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	10	4	40 %
Grevena R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	5	5	100 %
Grevena R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	10	9	90 %
Grevena R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	6	6	100 %
Rodopi R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	2	0	0 %
Rodopi R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	1	0	0 %
Rodopi R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	9	0	0 %
Rodopi R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	4	4	100 %
Rodopi R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	1	1	100 %
Rodopi R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	1	0	0 %
Rodopi R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	20	18	90 %
Rodopi R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	5	5	100 %
Drama R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	8	7	87.5 %
Drama R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	4	4	100 %
Drama R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	9	0	0 %
Drama R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	4	4	100 %
Drama R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	8	3	37.5 %

Drama R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	5	5	100 %
Drama R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	8	4	50 %
Drama R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	5	5	100 %
Pieria R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	4	0	0 %
Pieria R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	4	3	75 %
Pieria R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	4	0	0 %
Pieria R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	4	4	100 %
Pieria R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	12	5	41.67 %
Pieria R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	7	6	85.71 %
Pieria R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	12	10	83.33 %
Pieria R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	7	7	100 %
Kastoria R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	6	2	33.33 %
Kastoria R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	1	1	100 %
Kastoria R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	6	2	33.33 %
Kastoria R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	1	1	100 %
Kastoria R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	5	4	80 %
Kastoria R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	6	6	100 %
Kastoria R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	5	4	80 %
Kastoria R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	6	6	100 %
Karditsa R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	4	2	50 %
Karditsa R.U. Spring	Foxes adult	Serological	VNT/FAVN/ELISA	1	1	100 %
Karditsa R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	5	0	0 %
Karditsa R.U. Spring	Foxes adult	Biomarker	Tetracycline in bones	1	1	100 %
Karditsa R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	4	1	25 %
Karditsa R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	9	5	55.56 %
Karditsa R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	7	7	100 %
Karditsa R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	9	9	100 %
Kozani R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	3	0	0 %
Kozani R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	5	1	20 %
Kozani R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	1	1	100 %
Kilkis R.U Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	3	3	100 %
Kilkis R.U Spring	Foxes adult	Serological	VNT/FAVN/ELISA	2	2	100 %
Kilkis R.U Spring	Foxes juvenile	Biomarker	Tetracycline in bones	3	1	33.33 %
Kilkis R.U Spring	Foxes adult	Biomarker	Tetracycline in bones	2	2	100 %
Kilkis R.U Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	4	4	100 %
Kilkis R.U Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	7	4	57.14 %
Kilkis R.U Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	4	4	100 %
Kilkis R.U Autumn	Foxes adult	Biomarker	Tetracycline in bones	7	7	100 %
Xanthi R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	2	0	0 %
Xanthi R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	1	1	100 %
Xanthi R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	2	2	100 %
Xanthi R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	3	3	100 %
Thessaloniki R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	1	1	100 %
Thessaloniki R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	1	0	0 %
Pella R.U. Spring	Foxes juvenile	Serological	VNT/FAVN/ELISA	1	0	0 %
Pella R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	1	0	0 %
Kavala R.U. Spring	Foxes juvenile	Biomarker	Tetracycline in bones	1	0	0 %
Ioannina R.U. Autumn	Foxes juvenile	Serological	VNT/FAVN/ELISA	1	0	0 %
Ioannina R.U. Autumn	Foxes adult	Serological	VNT/FAVN/ELISA	1	1	100 %
Ioannina R.U. Autumn	Foxes juvenile	Biomarker	Tetracycline in bones	3	2	66.67 %

Ioannina R.U. Autumn	Foxes adult	Biomarker	Tetracycline in bones	4	3	75 %
Total				858	553	64.45 %

Table A2 - SURVEILLANCE TESTS

Region	Animal species	Category	Test description	Number of tests	Number of cases
Argolida R.U	Goat	Passive	Fluorescent antibody test (IF)	1	0
Arkadia R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Arkadia R.U.	Dogs	Passive	PCR	1	0
Attiki (North Section)	Rodents	Passive	Fluorescent antibody test (IF)	12	0
Attiki (North Section)	Foxes	Passive	Fluorescent antibody test (IF)	2	0
Attiki (North Section)	Foxes	Passive	PCR	1	0
Grevena R.U.	Foxes	Passive	Fluorescent antibody test (IF)	142	0
Grevena R.U.	Foxes	Passive	PCR	18	0
Drama R.U.	Foxes	Passive	Fluorescent antibody test (IF)	62	0
Drama R.U.	Wolves	Passive	Fluorescent antibody test (IF)	1	0
Drama R.U.	Foxes	Passive	PCR	5	0
Evros R.U.	Foxes	Passive	Fluorescent antibody test (IF)	26	0
Evros R.U.	Foxes	Passive	PCR	7	0
Evros R.U.	Jackals	Passive	Fluorescent antibody test (IF)	1	0
Ilia R.U.	Dogs	Passive	Fluorescent antibody test (IF)	3	0
Ilia R.U.	Dogs	Passive	PCR	1	0
Imathia R.U.	Foxes	Passive	Fluorescent antibody test (IF)	1	0
Irakleion R.U.	Hedgehog	Passive	Fluorescent antibody test (IF)	2	0
Irakleion R.U.	Hedgehog	Passive	PCR	2	0
Thesprotia R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Thessaloniki R.U.	Foxes	Passive	Fluorescent antibody test (IF)	28	0
Thessaloniki R.U.	Foxes	Passive	PCR	4	0
Thessaloniki R.U.	Cats	Passive	Fluorescent antibody test (IF)	1	0
Thessaloniki R.U.	Cats	Passive	PCR	1	0
Thessaloniki R.U.	Domestic ruminants	Passive	Fluorescent antibody test (IF)	1	0
Thessaloniki R.U.	Rodents	Passive	Fluorescent antibody test (IF)	1	0
Thessaloniki R.U.	Rodents	Passive	PCR	1	0
Ioannina R.U.	Foxes	Passive	Fluorescent antibody test (IF)	7	0
Ioannina R.U.	Foxes	Passive	PCR	3	0
Ioannina R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Ioannina R.U.	Dogs	Passive	PCR	1	0
Ioannina R.U.	Cats	Passive	Fluorescent antibody test (IF)	1	0
Ioannina R.U.	Cats	Passive	PCR	1	0
Ioannina R.U.	Wolves	Passive	Fluorescent antibody test (IF)	1	0
Ioannina R.U.	Wolves	Passive	PCR	1	0
Kavala R.U.	Foxes	Passive	Fluorescent antibody test (IF)	3	0
Kavala R.U.	Foxes	Passive	PCR	1	0
Kavala R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Kavala R.U.	Dogs	Passive	PCR	1	0
Karditsa R.U.	Foxes	Passive	Fluorescent antibody test (IF)	27	0
Karditsa R.U.	Foxes	Passive	PCR	8	0
Kastoria R.U.	Foxes	Passive	Fluorescent antibody test (IF)	27	0
Kastoria R.U.	Foxes	Passive	PCR	3	0
Kastoria R.U.	Dogs	Passive	Fluorescent antibody test (IF)	7	0
Kastoria R.U.	Dogs	Passive	PCR	2	0

Kastoria R.U.	Bats	Passive	Fluorescent antibody test (IF)	1	0
Kastoria R.U.	Bats	Passive	PCR	1	0
Kastoria R.U.	Wild Boar	Passive	Fluorescent antibody test (IF)	1	0
Kastoria R.U.	Wild Boar	Passive	PCR	1	0
Kilkis R.U.	Foxes	Passive	Fluorescent antibody test (IF)	22	0
Kilkis R.U.	Foxes	Passive	PCR	8	0
Kilkis R.U.	Wolves	Passive	Fluorescent antibody test (IF)	1	0
Kozani R.U.	Foxes	Passive	Fluorescent antibody test (IF)	6	0
Kozani R.U.	Foxes	Passive	PCR	1	0
Lakonia R.U.	Foxes	Passive	Fluorescent antibody test (IF)	1	0
Larissa R.U.	Foxes	Passive	Fluorescent antibody test (IF)	4	0
Larissa R.U.	Foxes	Passive	PCR	1	0
Larissa R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Larissa R.U.	Dogs	Passive	PCR	1	0
Lefkada R.U.	Foxes	Passive	Fluorescent antibody test (IF)	2	0
Magnesia R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Magnesia R.U.	Dogs	Passive	PCR	1	0
Xanthi R.U.	Foxes	Passive	Fluorescent antibody test (IF)	4	0
Xanthi R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Xanthi R.U.	Dogs	Passive	PCR	1	0
Xanthi R.U.	Marten	Passive	Fluorescent antibody test (IF)	1	0
Xanthi R.U.	Marten	Passive	PCR	1	0
Pella R.U.	Foxes	Passive	Fluorescent antibody test (IF)	20	0
Pella R.U.	Foxes	Passive	PCR	6	0
Pella R.U.	Dogs	Passive	Fluorescent antibody test (IF)	3	0
Pella R.U.	Dogs	Passive	PCR	3	0
Pella R.U.	Cats	Passive	Fluorescent antibody test (IF)	1	0
Pella R.U.	Cats	Passive	PCR	1	0
Pella R.U.	Marten	Passive	Fluorescent antibody test (IF)	1	0
Pella R.U.	Badger	Passive	Fluorescent antibody test (IF)	2	0
Pella R.U.	Badger	Passive	PCR	1	0
Pella R.U.	Horse	Passive	Fluorescent antibody test (IF)	1	0
Pella R.U.	Rodent	Passive	Fluorescent antibody test (IF)	1	0
Pella R.U.	Rodent	Passive	PCR	1	0
Pieria R.U.	Foxes	Passive	Fluorescent antibody test (IF)	48	0
Pieria R.U.	Foxes	Passive	PCR	6	0
Pieria R.U.	Cats	Passive	Fluorescent antibody test (IF)	1	0
Pieria R.U.	Cats	Passive	PCR	1	0
Preveza R.U.	Foxes	Passive	Fluorescent antibody test (IF)	2	0
Preveza R.U.	Foxes	Passive	PCR	1	0
Rodopi R.U.	Foxes	Passive	Fluorescent antibody test (IF)	23	0
Rodopi R.U.	Foxes	Passive	PCR	6	0
Serres R.U.	Foxes	Passive	Fluorescent antibody test (IF)	220	0
Serres R.U.	Foxes	Passive	PCR	34	0
Fthiotida R.U	Dogs	Passive	Fluorescent antibody test (IF)	2	0
Fthiotida R.U	Dogs	Passive	PCR	2	0
Florina R.U.	Foxes	Passive	Fluorescent antibody test (IF)	9	0
Florina R.U.	Foxes	Passive	PCR	4	0
Florina R.U.	Dogs	Passive	Fluorescent antibody test (IF)	2	0
Florina R.U.	Wolves	Passive	Fluorescent antibody test (IF)	1	0

Fokida R.U.	Foxes	Passive	Fluorescent antibody test (IF)	1	0
Chalkidiki R.U.	Foxes	Passive	Fluorescent antibody test (IF)	10	0
Chalkidiki R.U.	Foxes	Passive	PCR	9	0
Chalkidiki R.U.	Dogs	Passive	Fluorescent antibody test (IF)	1	0
Chalkidiki R.U.	Dogs	Passive	PCR	1	0
Trikala R.U.	Foxes	Passive	Fluorescent antibody test (IF)	31	0
Trikala R.U.	Foxes	Passive	PCR	3	0
Kastoria R.U.	Minks	Passive	Fluorescent antibody test (IF)	2	0
Evros R.U.	Wolves	Passive	Fluorescent antibody test (IF)	1	0
Evros R.U.	Wolves	Passive	PCR	1	0
Grevena R.U.	Foxes	Active	Fluorescent antibody test (IF)	45	0
Grevena R.U.	Foxes	Active	PCR	2	0
Drama R.U.	Foxes	Active	Fluorescent antibody test (IF)	26	0
Drama R.U.	Foxes	Active	PCR	2	0
Thessaloniki R.U.	Foxes	Active	Fluorescent antibody test (IF)	1	0
Ioannina R.U.	Foxes	Active	Fluorescent antibody test (IF)	7	0
Kavala R.U.	Foxes	Active	Fluorescent antibody test (IF)	1	0
Karditsa R.U.	Foxes	Active	Fluorescent antibody test (IF)	22	0
Kastoria R.U.	Foxes	Active	Fluorescent antibody test (IF)	18	0
Kilkis R.U.	Foxes	Active	Fluorescent antibody test (IF)	17	0
Kilkis R.U.	Foxes	Active	PCR	3	0
Kozani R.U.	Foxes	Active	Fluorescent antibody test (IF)	6	0
Kozani R.U.	Foxes	Active	PCR	2	0
Xanthi R.U.	Foxes	Active	Fluorescent antibody test (IF)	7	0
Xanthi R.U.	Foxes	Active	PCR	1	0
Pieria R.U.	Foxes	Active	Fluorescent antibody test (IF)	27	0
Pieria R.U.	Foxes	Active	PCR	1	0
Rodopi R.U.	Foxes	Active	Fluorescent antibody test (IF)	36	0
Rodopi R.U.	Foxes	Active	PCR	3	0
Serres R.U.	Foxes	Active	Fluorescent antibody test (IF)	110	0
Serres R.U.	Foxes	Active	PCR	2	0
Trikala R.U.	Foxes	Active	Fluorescent antibody test (IF)	133	0
Trikala R.U.	Foxes	Active	PCR	13	0
Kavala R.U.	Foxes	Active	PCR	1	0
Kastoria R.U.	Bats	Passive	RT-PCR	2	0
Total				1,436	0

Number of rabies virus isolates typed for differentiation from vaccine	0
Typing results (please indicate the number of field strains/vaccine strains, and (optional) comment)	0

Table B - WILDLIFE ORAL VACCINATION

Aerial distribution data files:

Downloadable via URL	[redacted]

Description of the analysis performed by the Competent Authority on the aerial distribution data and conclusions of the assessment for the quality of the distribution:

Since the autumn 2017 campaign, the aerial distribution company provides CCA with the necessary software in order to watch and record at real time the flight tracking details. More precisely using software provided by the company, the surveyors are able to access data regarding the location of the aircraft at real time (during each flight of each aircraft and not only at the end of daily missions).
The procedure is as follows:
The official veterinarian (coming from the Veterinary Department of the Regional Unit where the airfield is located) monitors the baits releasing procedure at the airfields, while present at the airfield on the days when the flights take place. The surveyor from the Directorate of Technical Studies at the MRDF receives an email every day from the veterinarian who monitors the bait dropping at the airfields (via the Department of Zoonoses) and from the company in charge of vaccines distribution, as well, setting out data on flights and on vaccine dropping. Furthermore, the veterinarian who monitors the bait dropping procedure from the airfield sends to the Department of Zoonoses data concerning flights (temperature on the day of flight, take-off/landing times, batches and number of baits loaded/unloaded) and this information is forwarded to the surveyor of the Ministry.
Then analyses of these data are made concerning the following:
- A comparison of the flight tracks with those obtained from joining the vaccine bait drop points;

- The distance between the different vaccine-baits releasing points;
- The compliance of the coverage of the areas with the project specifications (to find areas which should have been covered but were not);
- The density of vaccine distribution on maps.

The above points are grouped into one Excel file and together with the vaccine density maps for each Regional Unit are sent to the Department of Zoonoses by email following analysis by the surveyor. It should be highlighted that this procedure is applied on a daily basis, or the following working day that the surveyor of the Ministry is available.
In the Department of Zoonoses an additional check is carried out together with a random check of the take-off and landing data and the hours where they are recorded in the craft's GPS (time of first and last bait drop per craft).
In turn, a veterinarian (seasonal staff) from the National Reference Laboratory for rabies in animals analyses the data sent by the surveyor and reports his findings to the Department of Zoonoses by email
Finally, during the campaign the density maps are sent to the company distributing the vaccines so that corrective measures could be taken in areas where coverage is incomplete.
In relation to the two 2019 campaigns, while distribution of vaccine baits is conducted in smaller areas surrounding cities, villages or communities where the droppings were stopped, a diminished vaccine bait density is noted, as agreed by the Central Competent Authority. In addition, the surveyor from the Directorate of Technical Studies at the Ministry of Agricultural Development and Food (the Topography department), made an observation about some points of non compliance between flight tracks and bait releasing lines. On this subject, the aerial distribution company replied that when windy or in turns of the aircrafts and on areas where alterations of the flight paths is required due to geographic barriers (high mountainous areas, lakes, rivers, urban areas etc) some differentiations are completely justified.
On the other hand, any remarks made by the surveyor of the Ministry of Agricultural Development and Food about flights and baits dropping are always co-estimated by the surveyor, a veterinarian (seasonal staff) from the National Rabies Reference Laboratory and the veterinarian from the ministry, who is responsible for the implementation of Rabies Program together with the aerial distribution company.
As illustrated in the pdf attached files showing the bait coverage maps for each regional unit, for both 2019 campaigns, (named 2019 SPRING COVERAGE.pdf and 2019 AUTUMN COVERAGE.pdf), bait coverage is considered satisfactory as for the coverage of the areas included in the ORV programme.

Start date of First Campaign	3/4/2019	**End date of First Campaign**	11/5/2019
Start date of Second Campaign	10/10/2019	**End date of Second Campaign**	9/11/2019

Region/Area	Product used	Number of doses	Size of vaccinated area (km^2)	Distribution method
Preveza R.U.- Spring	Lysvulpen	11,823	444	Aerial
Thesprotia R.U.- Spring	Lysvulpen	725	56	Aerial
Aitolia & Acarnania R.U.- Spring	Lysvulpen	36,553	1,356	Aerial
Evrytania R.U.- Spring	Lysvulpen	13,475	505	Aerial
Arta R.U.- Spring	Lysvulpen	37,958	1,434	Aerial
Ioannina R.U.- Spring	Lysvulpen	92,749	3,359	Aerial
Karditsa R.U.- Spring	Lysvulpen	58,505	2,258	Aerial
Trikala R.U.- Spring	Lysvulpen	66,073	2,555	Aerial
Kastoria R.U.- Spring	Lysvulpen	29,370	1,103	Aerial
Grevena R.U.- Spring	Lysvulpen	53,781	1,935	Aerial
Kozani R.U.- Spring	Lysvulpen	89,362	3,203	Aerial
Florina R.U.- Spring	Lysvulpen	28,926	1,047	Aerial
Fthiotida R.U.- Spring	Lysvulpen	346	27	Aerial
Larissa R.U.- Spring	Lysvulpen	136,246	5,049	Aerial
Magnesia R.U. (except Sporades islands)- Spring	Lysvulpen	353	25	Aerial
Pieria R.U.- Spring	Lysvulpen	33,397	1,190	Aerial
Imathia R.U.- Spring	Lysvulpen	39,686	1,429	Aerial
Thessaloniki R.U.- Spring	Lysvulpen	94,562	3,448	Aerial
Pella R.U. - Spring	Lysvulpen	62,131	2,179	Aerial
Kilkis R.U.- Spring	Lysvulpen	69,431	2,477	Aerial
Serres R.U.- Spring	Lysvulpen	103,092	3,780	Aerial
Drama R.U. - Spring	Lysvulpen	90,063	3,328	Aerial
Kavala R.U. (except Thassos island)- Spring	Lysvulpen	43,750	1,640	Aerial
Xanthi R.U. - Spring	Lysvulpen	47,060	1,721	Aerial
Rodopi R.U. -Spring	Lysvulpen	65,500	2,457	Aerial
Evros R.U. (except Samothraki island) - Spring	Lysvulpen	102,089	3,756	Aerial
Chalkidiki R.U. - Spring	Lysvulpen	83,518	3,073	Aerial
Outside the continental territory - Spring	Lysvulpen	917	0	Aerial
Preveza R.U.- Autumn	Lysvulpen	11,929	442	Aerial
Thesprotia R.U.- Autumn	Lysvulpen	755	56	Aerial
Aitolia & Acarnania R.U.- Autumn	Lysvulpen	35,652	1,350	Aerial
Evrytania R.U.- Autumn	Lysvulpen	12,906	518	Aerial
Arta R.U.- Autumn	Lysvulpen	36,276	1,430	Aerial
Ioannina R.U.- Autumn	Lysvulpen	89,857	3,361	Aerial
Karditsa R.U.- Autumn	Lysvulpen	59,592	2,258	Aerial

Trikala R.U.- Autumn	Lysvulpen	64,599	2,554	Aerial
Kastoria R.U.- Autumn	Lysvulpen	30,928	1,102	Aerial
Grevena R.U.- Autumn	Lysvulpen	52,164	1,930	Aerial
Kozani R.U.- Autumn	Lysvulpen	87,420	3,182	Aerial
Florina R.U.- Autumn	Lysvulpen	29,365	1,038	Aerial
Fthiotida R.U.- Autumn	Lysvulpen	355	31	Aerial
Larissa R.U.- Autumn	Lysvulpen	134,207	5,030	Aerial
Magnesia R.U. (except Sporades islands)- Autumn	Lysvulpen	301	20	Aerial
Pieria R.U.- Autumn	Lysvulpen	32,258	1,195	Aerial
Imathia R.U.- Autumn	Lysvulpen	41,170	1,430	Aerial
Thessaloniki R.U.- Autumn	Lysvulpen	93,065	3,387	Aerial
Pella R.U. - Autumn	Lysvulpen	63,122	2,185	Aerial
Kilkis R.U.- Autumn	Lysvulpen	69,735	2,466	Aerial
Serres R.U.- Autumn	Lysvulpen	106,259	3,782	Aerial
Drama R.U. - Autumn	Lysvulpen	92,569	3,326	Aerial
Kavala R.U. (except Thassos island)- Autumn	Lysvulpen	43,523	1,617	Aerial
Xanthi R.U. - Autumn	Lysvulpen	47,713	1,715	Aerial
Rodopi R.U.- Autumn	Lysvulpen	66,725	2,453	Aerial
Evros R.U. (except Samothraki island) - Autumn	Lysvulpen	103,688	3,736	Aerial
Chalkidiki R.U. -- Autum	Lysvulpen	85,023	3,055	Aerial
Outside the continental territory Outside the continental territory - Autumn	Lysvulpen	719	0	Aerial
Total		2,983,316	109,483	

Table C - OFFICIAL CONTROL OF ORAL VACCINES BEFORE THEIR DISTRIBUTION

Number of batches distributed	Number of batches controlled by CA	Number of batches rejected
9	16	0

Batch number	Manufacturer	Sampling date	Virus titration result	Outcome of the titration
0825	Bioveta	5/4/2019	8.7	Acceptable
3425	Bioveta	7/4/2019	8.1	Acceptable
4026	Bioveta	8/4/2019	8.3	Acceptable
4126	Bioveta	6/4/2019	7.8	Acceptable
4226	Bioveta	4/4/2019	8.5	Acceptable
4026*	Bioveta	23/5/2019	7.8	Acceptable
4126*	Bioveta	24/5/2019	7.5	Acceptable
4226*	Bioveta	25/5/2019	7.2	Acceptable
Spring ORV Field samples	Bioveta	27/5/2019	7.8	Acceptable
6626	Bioveta	26/9/2019	7.3	Acceptable
6526	Bioveta	27/9/2019	7.2	Acceptable
6726	Bioveta	28/9/2019	8.3	Acceptable
6426	Bioveta	30/9/2019	7.4	Acceptable
6626*	Bioveta	4/10/2019	7.3	Acceptable
6525*	Bioveta	7/10/2019	7.7	Acceptable
Autumn ORV Field samples	Bioveta	8/10/2019	7.5	Acceptable

COMMENT / ADDITIONAL CLARIFICATION

Comments related to the Table “FINANCIAL DATA - REIMBURSEMENT CLAIM”
*** The FAT, ELISA, TTC analysis and other tests include the number of tests performed. They do not correspond only to the number of samples collected, but include also the repeat tests and the ring tests as

well. Regarding the other tests we include molecular techniques (REAL-TIME RT-PCR) and (RT-PCR). Since June 2018, in Real-Time RT-PCR assay for the detection of lyssavirus-derived ribonucleic acid (RNA), we included a separate real-time RT-PCR assay for the amplification of the internal housekeeping control gene of beta actin as an internal control for RNA extraction, which increases the cost of the assay per sample.
In detail,
1. The 1559 FAT tests claimed in the Table “FINANCIAL DATA - REIMBURSEMENT CLAIM” correspond to:
a) 790 tests for PASSIVE surveillance 2019, included also in Table A2,
b) 15 repeat tests for PASSIVE surveillance 2019, not included in Table A2,
c) 239 FAT tests (for the monitoring programme following the autumn 2018 campaign and were not included in the final 2018 report) not included in Table A2,
d) 7 FAT repeat tests (for the monitoring programme following the autumn 2018 campaign), not included in Table A2,
e) 456 FAT tests (for the monitoring programme following the spring 2019 campaign and the monitoring programme following the autumn 2019 campaign), included in Table A2, as Active Surveillance,
f) 12 FAT repeat tests (for the monitoring programme 2019), not included in Table A2.
g) 40 FAT tests for the need of Ring test,
2. The 796 ELISA tests CORRESPOND TO:
a) 186 tests (for the monitoring programme following the Autumn 2018 campaign for which the analyses were performed in 2019 and the relevant costs were not included and not claimed in the final 2018 report)- not included in Table A1.
b) 36 repeat tests (for the monitoring programme following the Autumn 2018 campaign and the analyses were performed in 2019 and were not included in the final 2018 report) - not included in Table A1.
c) 170 tests (for the monitoring programme following the spring 2019 campaign) - included in Table A1.
d) 11 repeat tests (for the monitoring programme following the spring 2019 campaign) not included in Table A1.

e) 230 tests (for the monitoring programme following the autumn 2019 campaign) -included in Table A1.
f) 8 repeat tests (for the monitoring programme following the autumn 2018 campaign) – not included in Table A1.
g) 79 tests (for the monitoring programme following the autumn 2018, spring 2019 and autumn 2019 campaign that did not reach an efficient result) – not included in Table A1.
e) 76 Ring Tests Serology– not included in Table A1.
3. The 710 TTC tests correspond to:
a) 243 tests (for the monitoring programme following the autumn 2018 campaign and the analyses were performed in 2019). – not included in Table A1. The relevant costs were not claimed in 2018 final report.
b) 7 repeat tests (for the monitoring programme following the autumn 2018 campaign and the analyses were performed in 2019) – not included in Table A1.
c) 190 tests (for the monitoring programme following the spring 2019 campaign) –included in Table A1.
d) 1 repeat test (for the monitoring programme following the spring 2019 campaign) – not included in Table A1.
e) 269 tests (for the monitoring programme following the autumn 2019 campaign) – included in Table A1.
4. The 384 other tests correspond to:
a) 158 REAL-TIME RT-PCR tests performed in the framework of passive surveillance 2019, also included as tests in the Table A2.
b) 53 REAL-TIME RT-PCR repeat tests performed in the framework of passive surveillance 2019, but not included as tests in the Table A2
c) 14 REAL-TIME RT-PCR tests (for the monitoring programme following the autumn 2018 campaign and the analyses were performed in 2019). The relevant costs were not claimed in 2018 final report.
d) 3 REAL-TIME RT-PCR repeat tests (for the monitoring programme following the autumn 2018 campaign and the analyses were performed in 2019).-not included as tests in the Table A2
e) 13 REAL-TIME RT-PCR tests (for the monitoring programme following the spring 2019 campaign) - included as tests in the Table A2

f) 4 REAL-TIME RT-PCR repeat tests (for the monitoring programme following the spring 2019 campaign).- not included as tests in the Table A2
g) 17 REAL-TIME RT-PCR tests (for the monitoring programme following the autumn 2019 campaign) - included as tests in the Table A2
h) 84 REAL-TIME RT-PCR tests performed in the framework of the Ring Test, -not included as tests in the Table A2
i) 2 PCR (RT-PCR) tests performed in the framework of passive surveillance 2019 in a bat sample- included in Table A2.
j) 20 PCR (RT-PCR) tests performed in the framework of the Ring Test. -not included as tests in the Table A2
g) 16 sequencing tests in the framework of isolation and characterization of Rabies Virus- Ring Test (N and G gene) -not included as tests in the Table A2