



AGRICONCONSULTING EUROPE SA

EuropeAid140314/DH/SER/Multi – SANTE/2018-G-046 EU

**Regional action on animal disease eradication  
in the Western Balkans (ADEWB) Project**

**Rabies activities**

**Third Meeting of the Standing Group of Experts on Rabies in Europe (SGE RAB3)**

Toni Kirandjiski – Team Leader  
Florence Cliquet – ADEWB Rabies expert  
Virtual meeting ♦ 13 December 2021

# Content



- Basic project information
- Specific rabies activities

# Basic information

## ➤ **Project Title**

Regional action on animal disease eradication in the Western Balkans (ADEWB)

## ➤ **Financing and Contracting Authority**

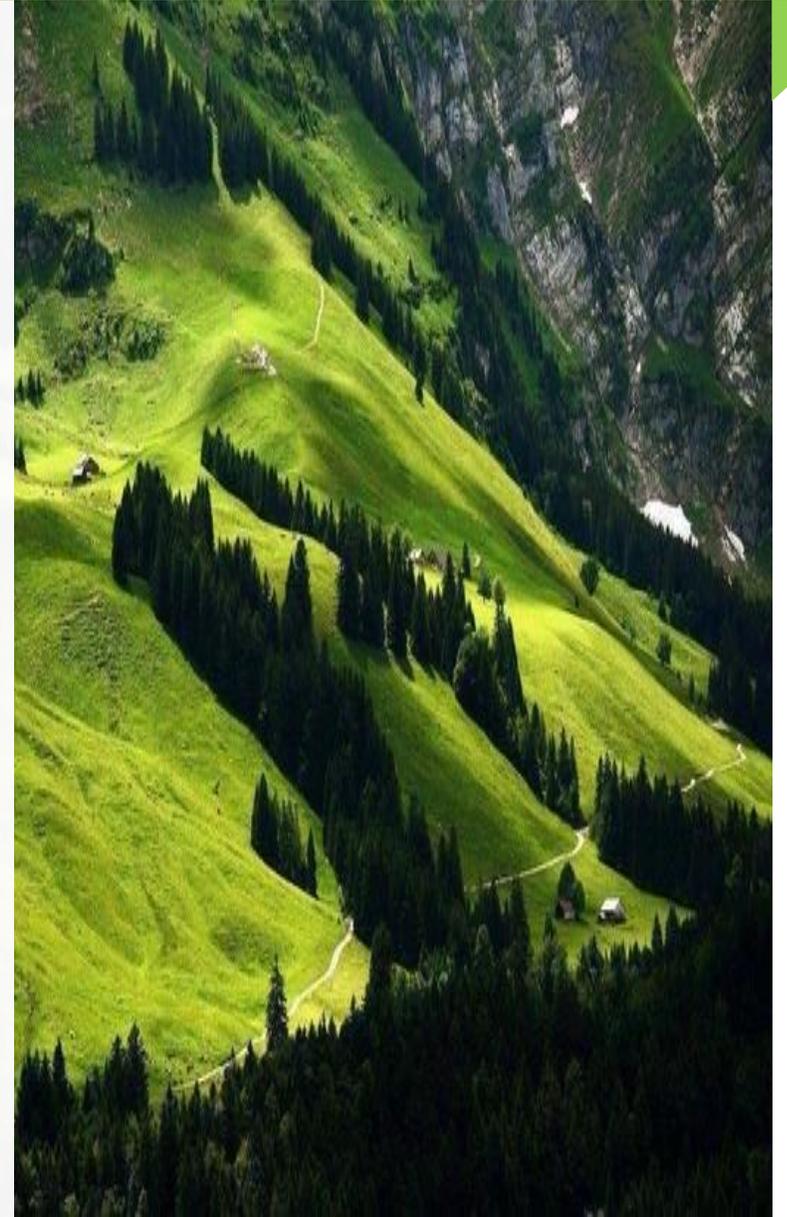
European Union / EC – DG SANTE and DG NEAR

## ➤ **Procurement reference No**

EuropeAid140314/DH/SER/Multi – SANTE/2018-G-046  
EU

## ➤ **Contractor**

Agriconsulting Europe SA (AESA) in consortium with Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER)



# Basic information

## ➤ Project stakeholders

Veterinary competent authorities

Farmers, traders and other stakeholders involved in animal production and trade

**Beneficiary countries**



# Overall objective:

1

To control and eradicate important animal diseases in the Western Balkans, in particular those diseases that continue to be a threat to EU Member States.

2

To establish a solid cross border cooperation platform with the veterinary services in neighbor countries and EU Member States.

3

To improve the access of agriculture products from the Western Balkans to the internal market and to non-EU countries markets.



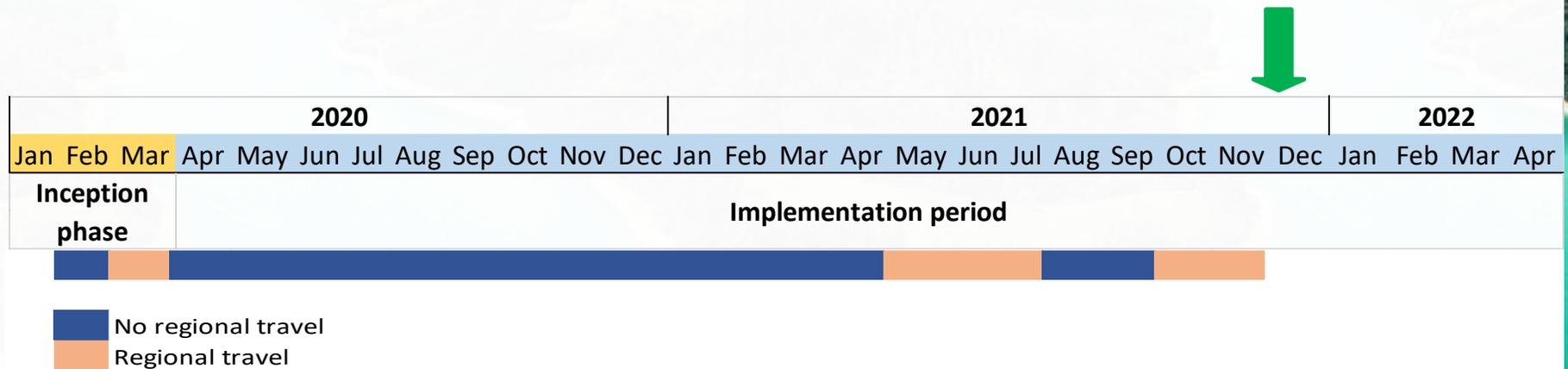
# Project target animal diseases



- Rabies
- Classical Swine Fever
- African Swine Fever
- Lumpy Skin Disease
  - Bluetongue
  - Avian Influenza
- Peste des petit ruminants
- Sheep pox and goat pox

# Timeframe

- Start date: 01.01.2020
- Duration: 28 months



# SOP for sampling

<https://www.adewb.eu/a1-3-sops/>

## GENERAL GUIDELINES

- Biosafety and biosecurity protocols during sampling
- General Principles For Sample Packaging And Transportation
- Labeling
- Storage and transportation



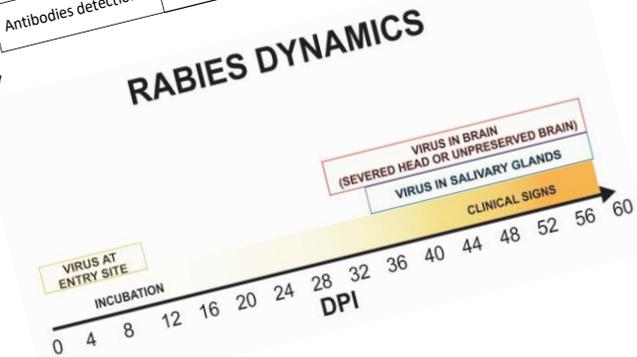
## SPECIFIC INSTRUCTION FOR SAMPLING

### LEGEND

		Serum separation tube contains a gel that separates the clot from the serum in whole blood specimens. During centrifugation, the gel moves to create a barrier between cells and serum, providing access to the serum for various chemistry, serology and other procedures.
		Sterile cup with screw cap of different sizes – Primary receptacles for single specimen (blood from hunted foxes or body fluids).
		Sealable/ Zip lock bag of different sizes – Primary receptacles for single specimen (filter paper for collection of blood or body fluids).
		Filter paper for blood specimen collection
		Strong bag for whole carcasses.
		Big plastic container in thick solid plastic.

REASON FOR SAMPLING	SAMPLE	SAMPLE VOLUME AND QUANTITY (from the animal)	PRIMARY RECEPTACLE	MINIMUM NUMBER OF ANIMALS TO BE SAMPLED	STORAGE AND TRANSPORT TEMPERATURE	DIAGNOSTIC TECHNIQUE
Clinical suspicion (head almost always exposure)	Whole animal (only for small animals)	Not applicable		Not applicable	-4°C if the shipment is to be kept for more than 48 hours; if more than 48 hours, keep at -20°C	RT-qPCR FAT Virus isolation
	Severed head	Not applicable		Not applicable	-4°C if the shipment is to be kept for more than 48 hours; if more than 48 hours, keep at -20°C	RT-qPCR FAT Virus isolation
Monitoring of viral vaccination efficiency	Severed head and serum and/or body fluids	3-5 ml of blood/body fluid		Not applicable	-4°C if the shipment is to be kept for more than 48 hours; if more than 48 hours, keep at -20°C	RT-qPCR FAT Virus isolation-RT-OT
	Whole carcass	Not applicable		3-4 weeks after OIV 4 samples per 100 km <sup>2</sup> /year	Room temperature	RT-PCR RT-PCR Tetacycline presence Age estimation
	Blood	Filter paper needs to be soaked in the body fluids/blood		Not applicable	Room temperature	RT-PCR Tetacycline presence Age estimation

Rabies virus dynamics	
SAMPLE OF CHOICE:	
Virus detection	Brain tissue from onset of clinical signs to death
Antibodies detection	2 – 3 weeks post vaccination to lifelong



# Strengthen lab network

## ➤ Main conclusions

- All national laboratories have implemented at least one diagnostic method for virus confirmation
- Four national laboratories have sufficient capacities for confirmation according to international standards (at least two independent methods for virus confirmation) which are also confirmed with PTs with EU RL
- Three national laboratories have implemented all diagnostic procedures in accordance with international standards

		DIRECT VIRUS DETECTION					ANTIBODY DETECTION
		FAT	VI	rt-RT-PCR	RT-PCR	Seq	ELISA
Protocol implemented?	KOSOVO	yes	No	No	No	No	yes
Aligned with EU/OIE standards?		yes					yes
Used in PTS testing?		No					No
Accredited?		No					No
Number of tests per year?							
Protocol implemented?	MONTENEGRO	yes	No	No	No	No	yes
Aligned with EU/OIE standards?		yes					yes
Used in PTS testing?		yes					yes
Accredited?		No					yes
Number of tests per year?		400					400
Protocol implemented?	ALBANIA	yes	yes	No	No	No	yes
Aligned with EU/OIE standards?		yes	yes				yes
Used in PTS testing?		yes	yes				yes
Accredited?		No	No				No
Number of tests per year?							
Protocol implemented?	N. MACEDONIA	yes	yes	yes	yes	yes	yes
Aligned with EU/OIE standards?		yes	yes	yes	yes	yes	yes
Used in PTS testing?		yes	yes	yes	yes	No	yes
Accredited?		yes	yes	No	No	No	No
Number of tests per year?		200	20	10	0*	0*	15
Protocol implemented?	SERBIA	yes	yes	yes	yes	yes	yes
Aligned with EU/OIE standards?		yes	yes	yes	yes	yes	yes
Used in PTS testing?		yes	yes	yes	yes	No	yes
Accredited?		yes	yes	No	No	No	yes
Number of tests per year?		200	10	5000			1000
Protocol implemented?	BOSNIA	yes	yes	yes	yes	yes	yes
Aligned with EU/OIE standards?		yes	yes	yes	yes	yes	yes
Used in PTS testing?		yes	yes	yes	yes	yes	yes
Accredited?		yes	yes	No	No	No	yes
Number of tests per year?		200	0	0	0	0	10-15

# Strengthen laboratory network – <https://adewb.ryver.com>

**TK** ADEWB  
@ToniK

Search

Notifications

Task Stream

Personal Tasks

**FORUMS**

- Test team ADEWB
- Test forum
- Start Here
- All Hands

**TEAMS**

- Rabies - National Coordi...
- BT - National Coordinat...
- Western Balkan Lab Exp...**
- ADEWB

**PEOPLE**



CHAT **TOPIC**

SOP for sample co

+ Toni Kirandjiski cr

CSF

← Zagorka Popova re

Project Materials

+ Kiril Krstevski crea

**PPR**

+ Kiril Krstevski crea

LSD/SGP

+ Kiril Krstevski crea

RABIES

+ Kiril Krstevski crea

AI/ND

+ Kiril Krstevski crea

BT

+ Kiril Krstevski crea

ASF

+ Kiril Krstevski crea

Western Balkan Lab Experts: PPR

**PPR**

for Western Balkan Lab Experts



**Kiril Krstevski** Mon Dec 14, 2020 at 4:51pm

#PPR



SOP- RT-PCR with Qiagen kit.pdf  
Tue Dec 15, 2020 at 4:35pm - 80KB



General SOP for PPR detection-EURL-PPR-  
v112018.pdf  
Tue Dec 15, 2020 at 4:35pm - 872KB



SOP sampling and storage for PPR diagnostic-  
EURL-PPR.pdf  
Tue Dec 15, 2020 at 4:35pm - 455KB



SOP virus titration test-EURL PPR.pdf  
Tue Dec 15, 2020 at 4:35pm - 240KB



SOP virus production-EURL PPR.pdf  
Tue Dec 15, 2020 at 4:35pm - 312KB

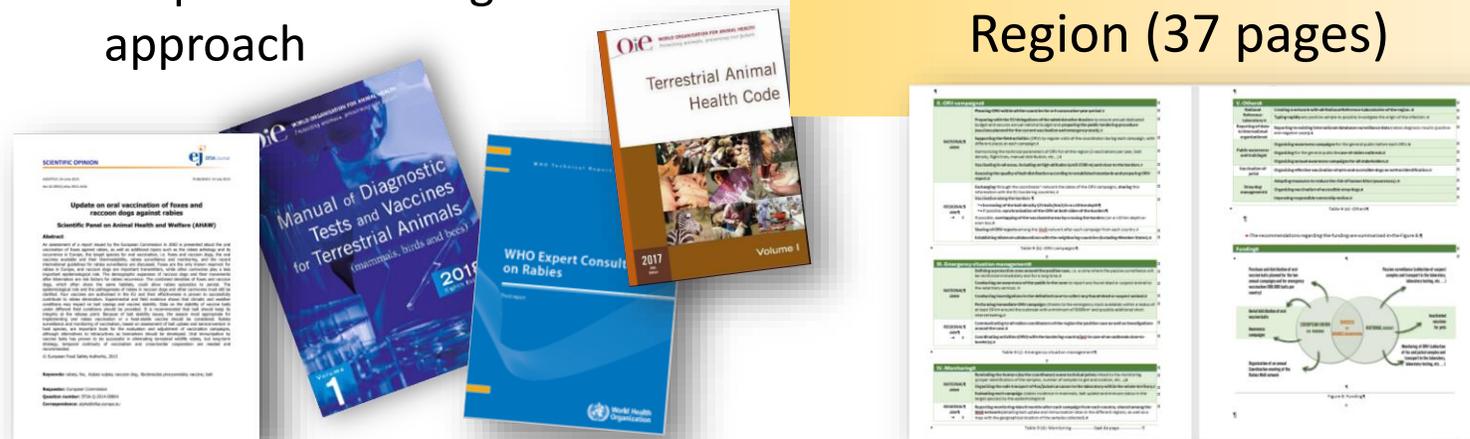
# Regional WB CVO Forum for Communication and Cooperation

- **Meeting in July 2021 in Petrovac – Montenegro**
  - The CVOs of the WB countries agreed to set up a joint Regional WB CVO Forum for Communication and Cooperation
  - Protocol for operation was agreed
  - Rabies and bluetongue regional control were discussed and recommendation were given
- **First meeting of the WB CVO Forum in Sarajevo (November 2021)**
  - Initiate the functioning and the first meeting
  - Chair (CVO of BiH) and Co-chair (CVO of MK) were agreed
  - Bilateral meetings were organized
  - Next meeting in March in North Macedonia

# Regional strategy

- Conduct on line meetings with representatives of the six beneficiary countries (December 2020)
- Assess the current approach in the beneficiary countries for rabies control as well as regional aspects
- Propose a coherent strategy for rabies control with emphasis on a regional approach

Produced document :  
Coherent strategy for rabies control in the Western Balkan Region (37 pages)



# Background

## Surveillance

- Very low level
- Lack of detailed data
- Lack of epidemiological expertise

## FINDINGS SUGGEST Data reporting

- No data sharing within the region
- Poor dissemination to international bodies

## Vaccination monitoring

- Globally insufficient (sampling below the recommended size, uneven location)
- Lack of epidemiological expertise

## ORV campaigns



- Conducted in case IPA funds available; no coordination in the region (within 10 years, campaigns done in all WB two times only)
- Lack of sharing of information (regional meetings)
- No emergency vaccination procedure in case of resurgence of the disease
- Mountain areas should be vaccinated (> 2000m)

# Regional approach and collaboration with EU, key of the success

## Rabies is a trans-boundary disease

### Political and administrative borders are not barriers to rabies spread

- Limited geographical size of the beneficiary countries (219.000 km<sup>2</sup>)
- High number of borders
- Rabid foxes are able to move outside their territories (20-60 km/year)
- Countries are all close to rabies elimination

**A regional approach means that all countries must have harmonized principles and methods for the surveillance and elimination of rabies**

**Development of a formal, long-term and sustainable collaboration supported by OIE, EC and FAO**

# National pre-requisites for achieving rabies elimination : Framework and advocacy

## Organization in each beneficiary country

- Political prioritization 
- Stability in the institutional framework and chain of command, agile and fluid, with all roles clearly defined and known at both national and local levels
- Nomination of a coordinator 
- National Committee for Rabies Control 
- Budgets from EU delegations and each country clearly secured for several years thanks to close cooperation between EU delegations and national competent authorities 

# Importance of coordinators and network of regional coordinators

## National coordinator

- Responsible of all activities related to rabies in the country:
  - Organizing passive surveillance
  - Planning, organizing and implementing ORV
  - Organizing monitoring of vaccination
  - Organizing meetings of the National Committee for Rabies Control
  - Collecting epidemiological data
  - Evaluating control measures
- Technical authority to take decisions or to refer for decisions to be taken rapidly

## Regional network of national coordinators

- Exchanging regularly on surveillance data (monthly basis)
- Exchanging immediately for any positive case
- Organizing regular meetings (at least one every six months)
- Organizing an annual meeting (annual assessment, discussing shortcomings, deciding possible mitigation measures, etc...)

# First meeting of the Western Balkan national coordinators for rabies control

Held on line on 20 October 2021

- Each WB country has nominated a national coordinator 😊
- Exchanges on rabies activities in progress 😊
- Exchanges on several initiatives tested to improve the sample size of passive surveillance 😊
- Proposal that the chair of the meeting rotate by country every 6 months 😊



Reasonable hope these meetings will be regularly organized as well as regular information exchanges

# Key recommendations

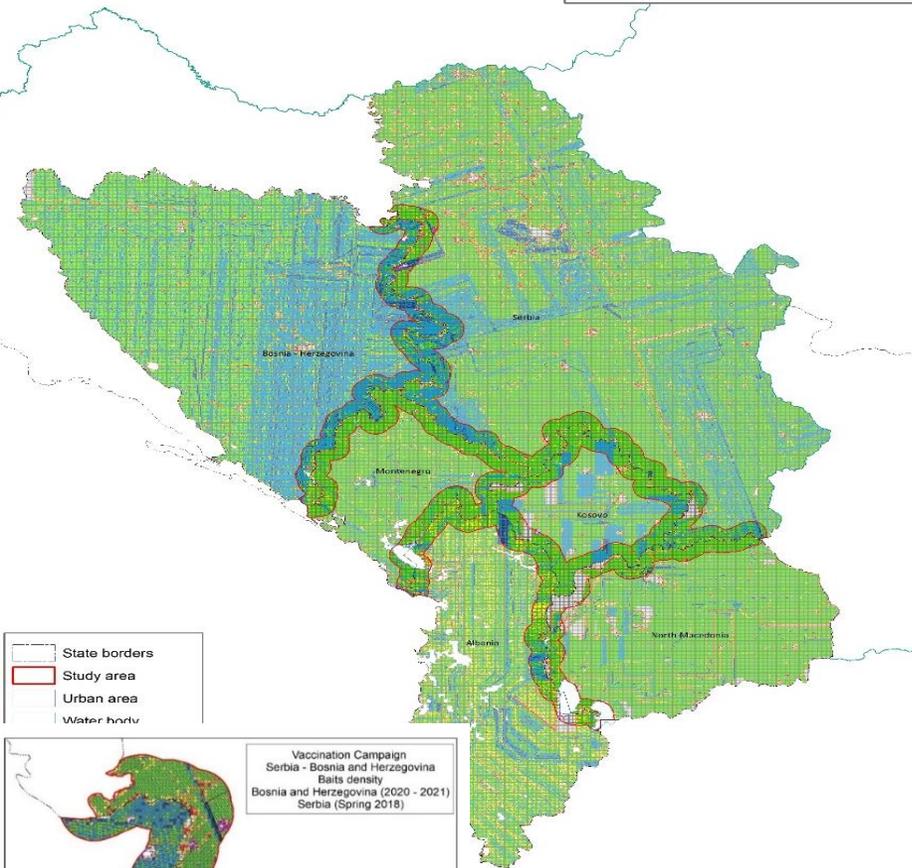
- 
1. Rabies passive surveillance
  2. Public awareness
  3. Oral vaccination programmes
  4. Rabies outbreak management
  5. Trainings of involved stakeholders
  6. Vaccination monitoring
  7. Vaccination of pets
  8. Stray dog management
  9. Evaluation of control programme

# Rabies surveillance

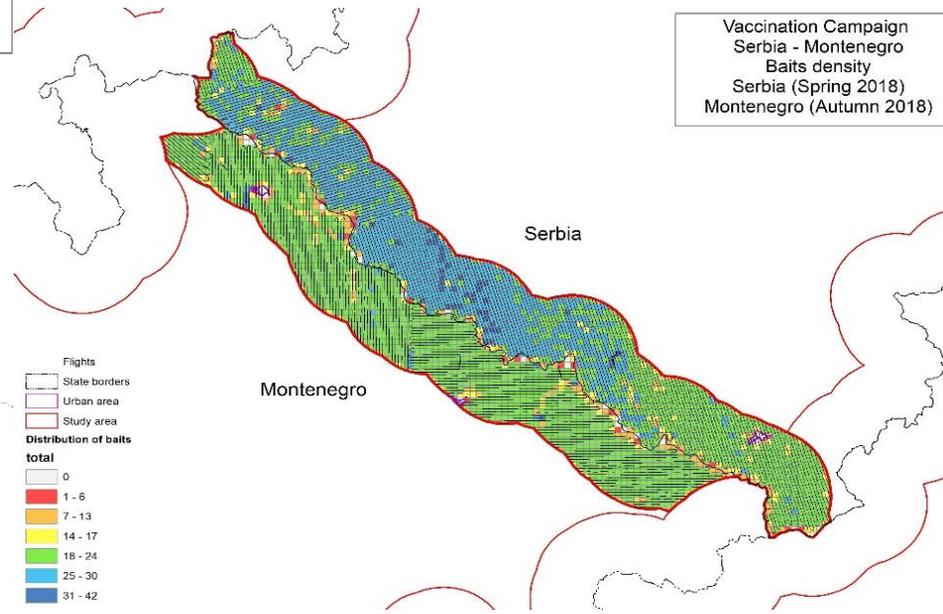
## Most important improvements needed in each country

<b>NATIONAL side</b>	<b>Organizing regular trainings</b> of all national and local professionals (stakeholders, hunter associations and veterinary inspectors) on passive surveillance.
	<b>Organizing regular awareness</b> campaigns for the general public focusing particularly on rabies surveillance by using different means available (written press, radio, Internet, posters, etc...).
	<b>Organizing the collection of animals found dead</b> in the field to the laboratory; in particular, arranging with road authorities the collection of road-killed animals throughout all the country.
	<b>Identifying clearly the samples collected in the field</b> , as well as the type of sampling: passive surveillance <i>versus</i> monitoring.
	<b>Increasing collaboration with the EURL for rabies</b> (for support for typing for example, trainings, etc...).
	<b>Evaluating the programme on a very regular basis.</b>
<b>REGIONAL side</b>	<b>Organizing regular meetings</b> (at least one every six months) within the network to exchange data and to share experiences. These meetings could be chaired by different countries on a rotational basis.
	<b>Organizing awareness campaigns</b> for all stakeholders of the control programme.
	<b>Exchanging on a monthly basis surveillance data among the WeB network.</b>
	<b>Demonstrating the activities, discussing shortcomings and agreeing on mitigation measures during an annual Coordination meeting.</b>

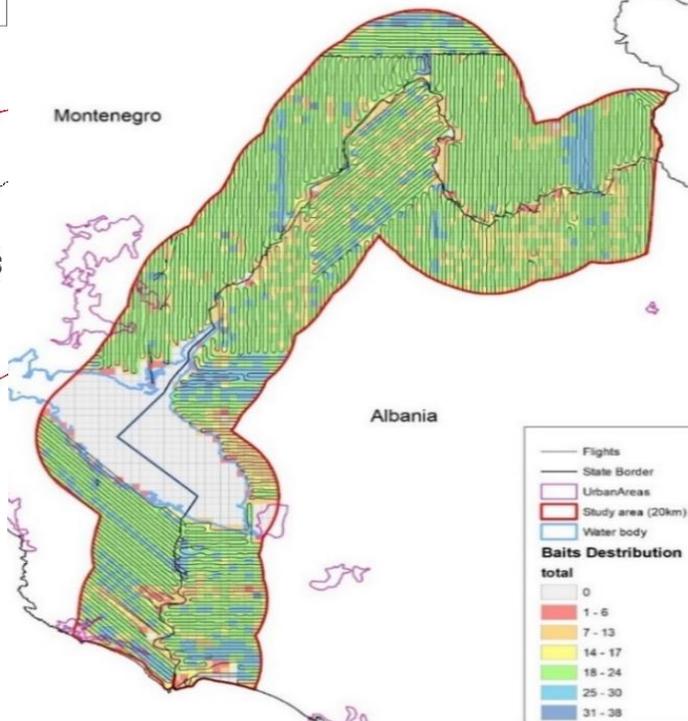
Vaccination Campaign  
Baits density



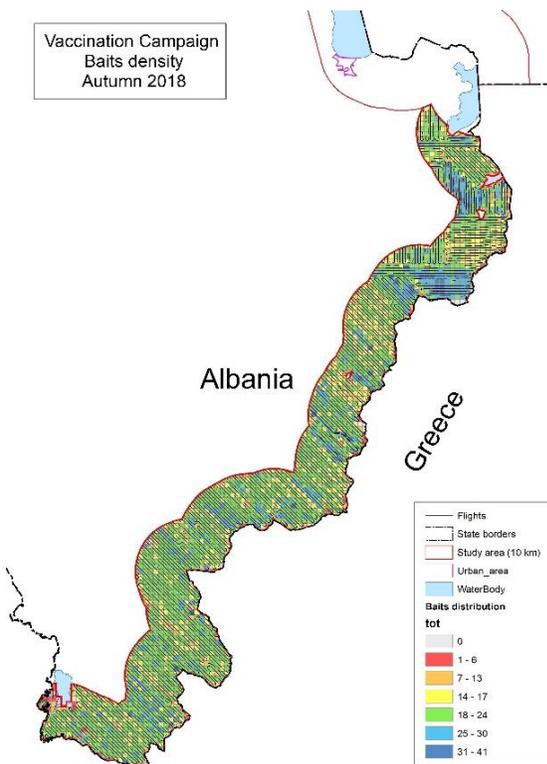
Vaccination Campaign  
Serbia - Montenegro  
Baits density  
Serbia (Spring 2018)  
Montenegro (Autumn 2018)



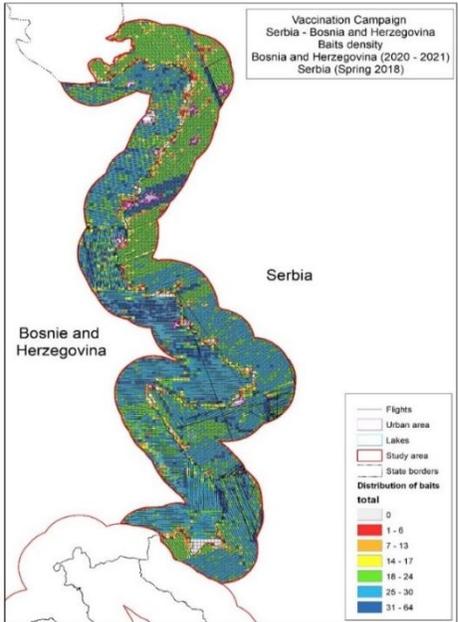
Vaccination Campaign  
Albania - Montenegro  
Baits density  
Autumn 2018



Vaccination Campaign  
Baits density  
Autumn 2018



State borders  
Study area  
Urban area  
Water body



# Oral rabies vaccination programmes <sup>(1/2)</sup>

**Proposal to conduct 4 consecutive years of ORV in each country, with two vaccinations per year**



## **Prerequisite**

**Absolute need to improve the passive surveillance in all the region**

- This 4-year period is short, as it includes a 2-year period after the last case is recorded
- Objective to eliminate rapidly the infection and to maintain a sufficient vaccination coverage of fox population (around 70%) until rabies elimination is achieved

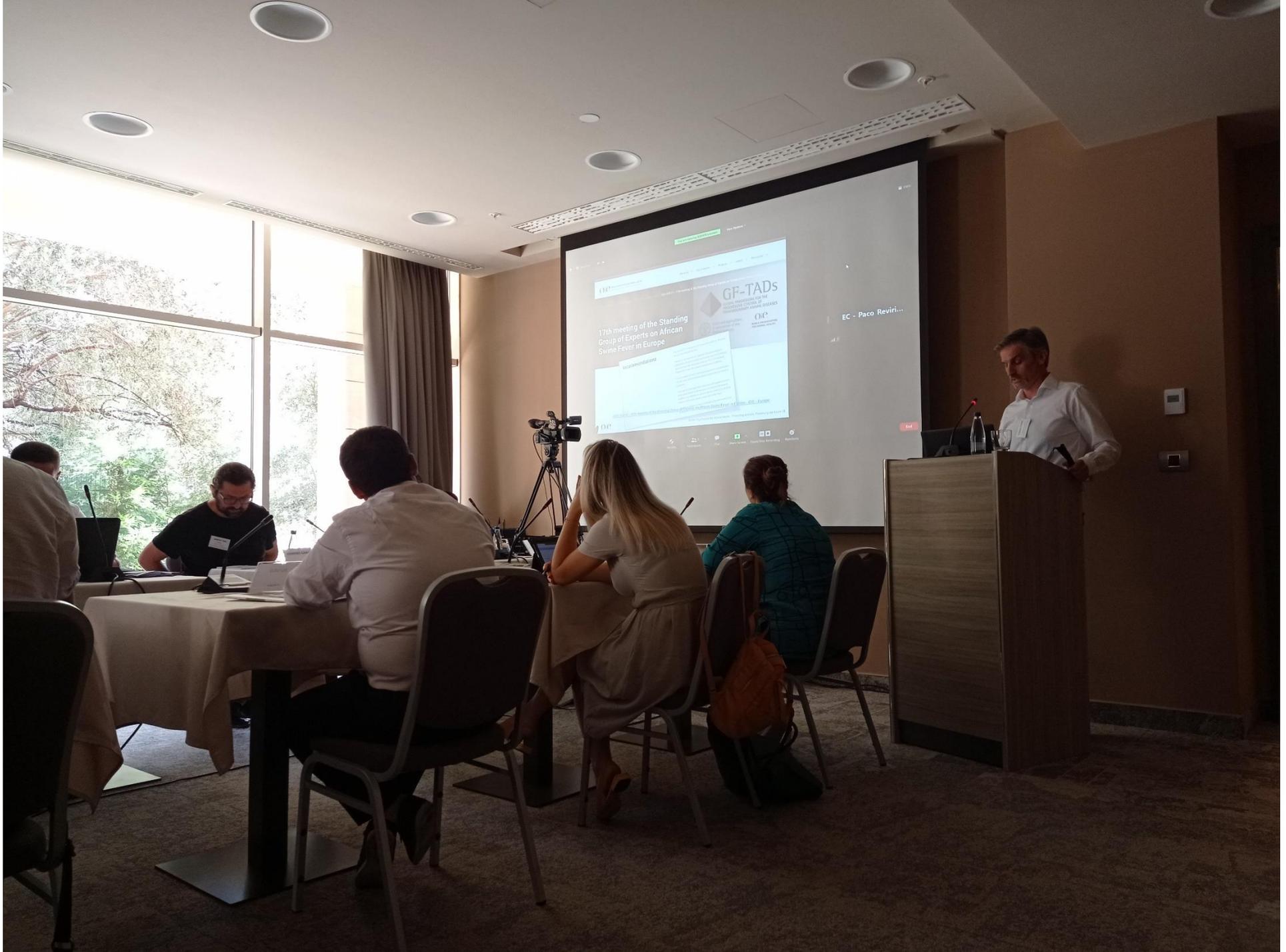


# Conclusion



- Regional situation in the Balkans has improved thanks to ORV since years 2010. WBs started very rapidly using ORV in the 2010s.
- ORV alone is not sufficient to guarantee the free status of a country. The use of ORV without indicators of success (surveillance data) is not cost-benefit.
- Efforts for surveillance are absolutely required in the final phase for effectively eliminating the last foci.
- A regional approach with harmonized principles and methods for the surveillance and elimination of rabies and regular exchanges of information is required for sustainability of the freedom status.
- Giving to rabies control and surveillance a political priority and securing long term funding are crucial to achieve sustainable rabies elimination.

**At a crucial moment close to elimination, time is now to promptly improve rabies control and surveillance all together**





**Proposed movement restrictions**

The current restrictions on movement are:

- to visit areas that are not open to the public
- to visit areas that are not open to the public
- to visit areas that are not open to the public





# Thank you for your attention



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