



# Implementation of the Rabies Programme 2016 in Bulgaria

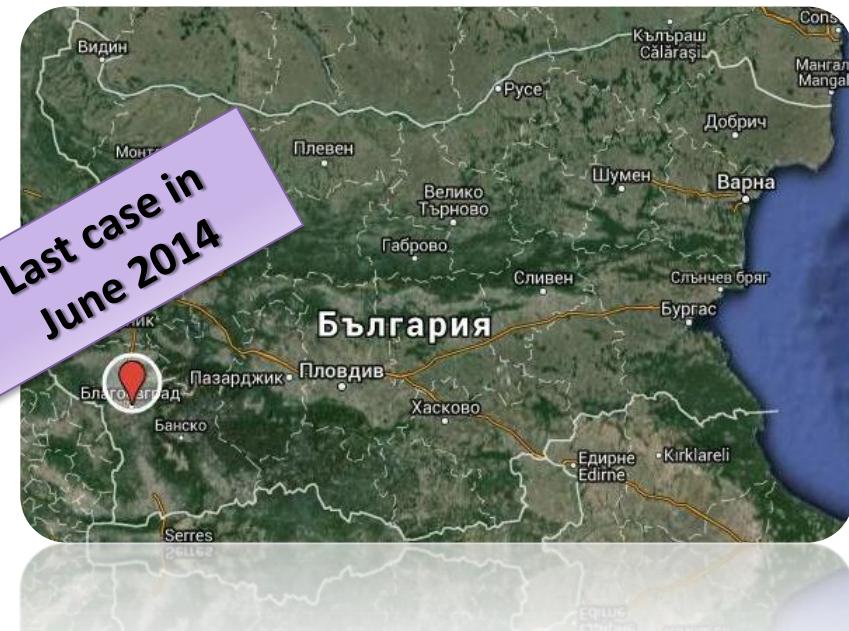
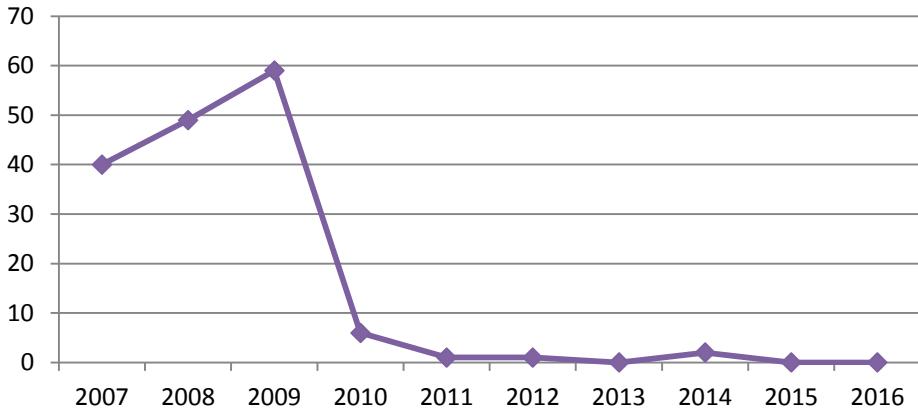
Photo credit: ЛРД Родопи

*SC PAFF, 16th May 2017, Brussels*

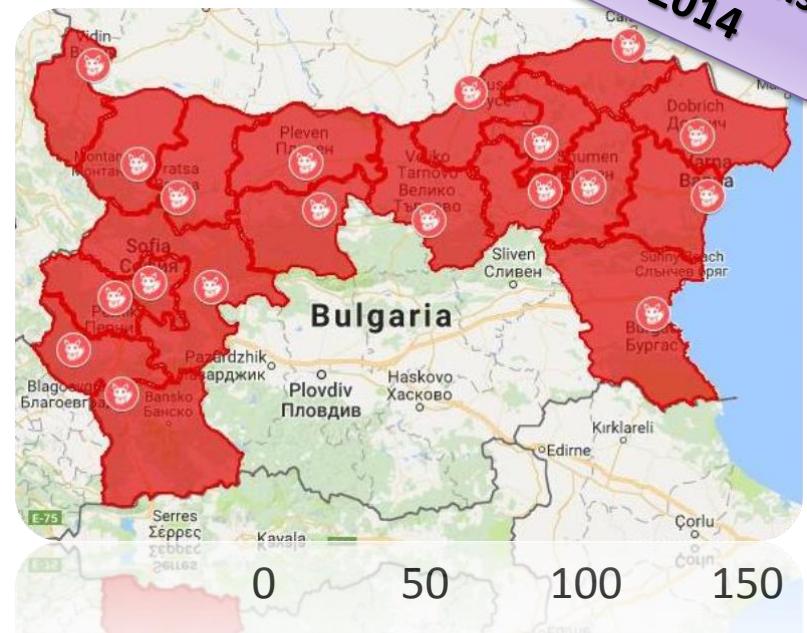
# Epidemiological situation

NO RABIES CASES REGISTERED IN 2016

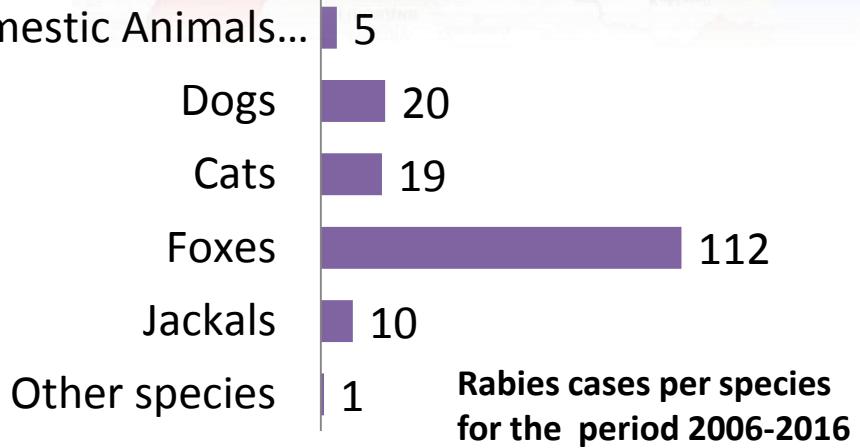
Rabies cases 2007-2016



Affected regions  
2007-2014



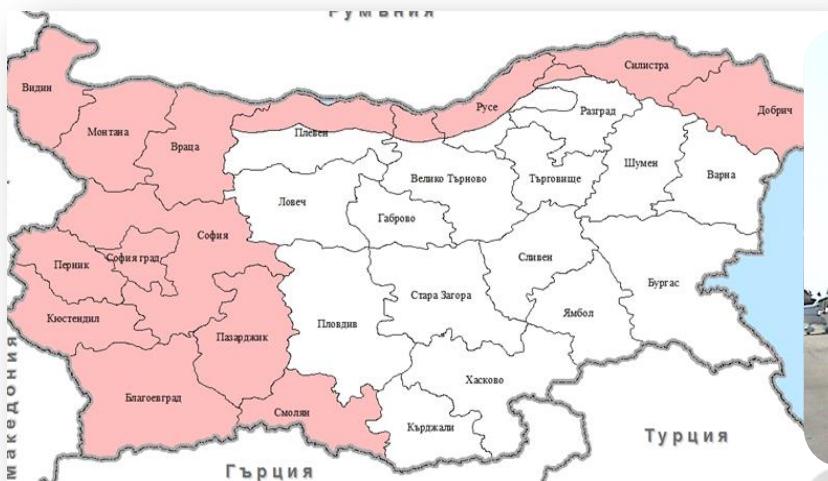
Domestic Animals...



# Vaccination campaigns

- Oral vaccination of foxes – operational since 2009
- Lysvulpen vaccine, Bioveta Czech Republic, 20 baits/sq km
- Total number of baits distributed in 2016 – 2 044 200
- 8 batches distributed – all tested in EURL

Year	Campaigns	District s	Territory covered (km <sup>2</sup> )
2009	2 spring & autumn	18	55 037 km2
2010	1 spring	19	55 995 km2
2011	1 spring	19	55 995 km2
2012	2 spring & autumn	20	59 500 km2
2013	2 spring & autumn	20	59 500 km2
2014	2 spring & autumn	22	79 119 km2
<u>2015</u>	<u>2 spring and autumn</u>	<u>16</u>	<u>54 716 km2</u>
<u>2016</u>	<u>2 – spring and autumn</u>	<u>16</u>	<u>55 394,5 km2</u>



# Vaccination campaigns

Wildlife oral vaccination – aerial distribution					
Region/Area	Month	Number of baits *	Size of vaccinated area (km <sup>2</sup> )	Distribution method	Bait density (per km <sup>2</sup> )
1	2	3	4	5	6=3÷4
<b>Blagoevgrad, Kyustendil, Pernik, Sofia city, Sofia region, Smolyan, Pazardjik, Dobrich, Silistra, Pleven, Veliko Tyrnovo, Razgrad, Ruse, Montana, Vraca, Vidin</b>	spring ( 15.03.2016 - 28.03.2016)	1 010 100	50 473	aircrafts	19,6
	autumn (19.10.2016 - 14.11.2016)	1 010 100	50612		19,9
	Total	2 019 710	51 094,5	aircrafts	19,8

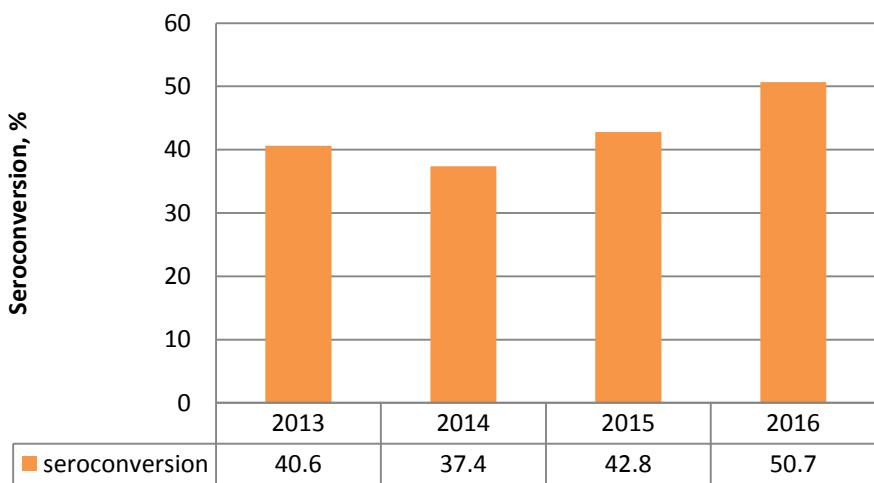
Wildlife oral vaccination – manual distribution					
Region/Area	Month	Number of baits *	Size of vaccinated area (km <sup>2</sup> )	Distribution method	Bait density (per km <sup>2</sup> )
1	2	3	4	5	6=3÷4
<b>Kozloduy Powerplant (Vraca and Montana), Sofia-city - suburbs</b>	spring	12 000	4 300	manual	2,79
	autumn	12 000	4 300		2,79
	Total	24 000	4 300	manual	2,79



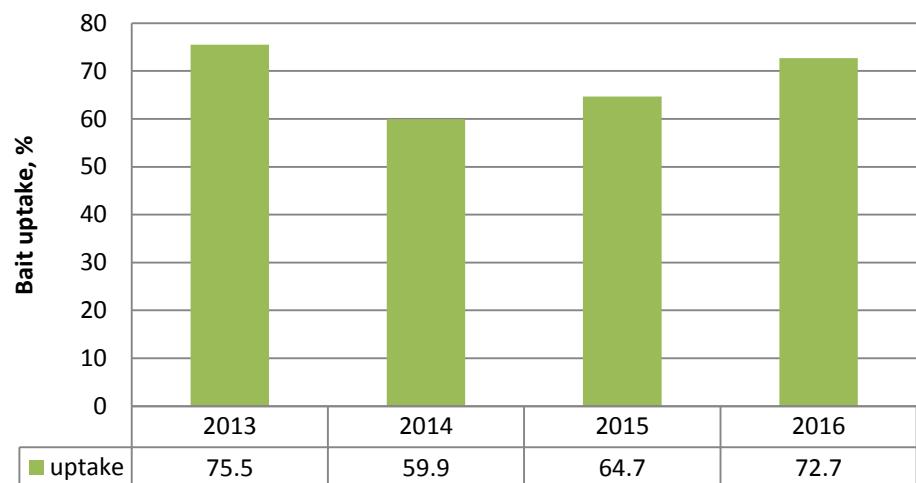
# Monitoring of vaccination effectiveness, foxes

Region	Species	Serological tests					Tests for the presence of biomarker –Tetracycline (T)				IFT			Positive
		Type of test	Number of tests	Seropositive	% seropositive	Type of test	Number of tests	Biomarker present	% marker presence	Type of test	Number of tests			
total	foxes	ELISA	668	339	50,7	T	835	607	72,7	IFT	837		0	

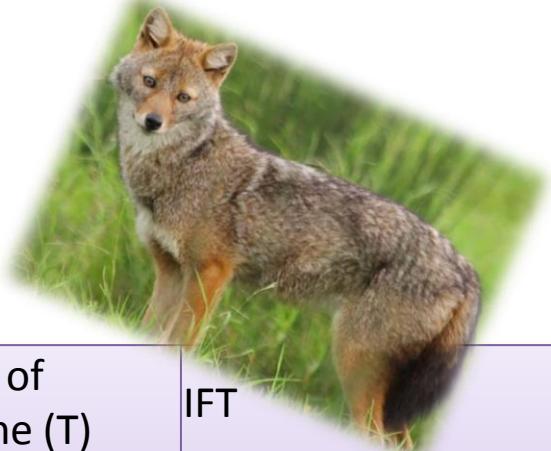
Seroconversion in foxes 2013 - 2016



Bait uptake in foxes 2013 - 2016

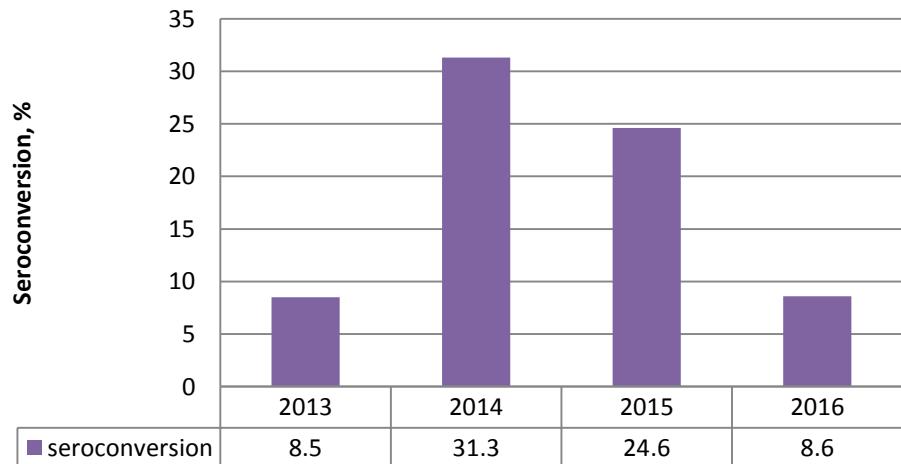


# Monitoring of vaccination effectiveness, jackals

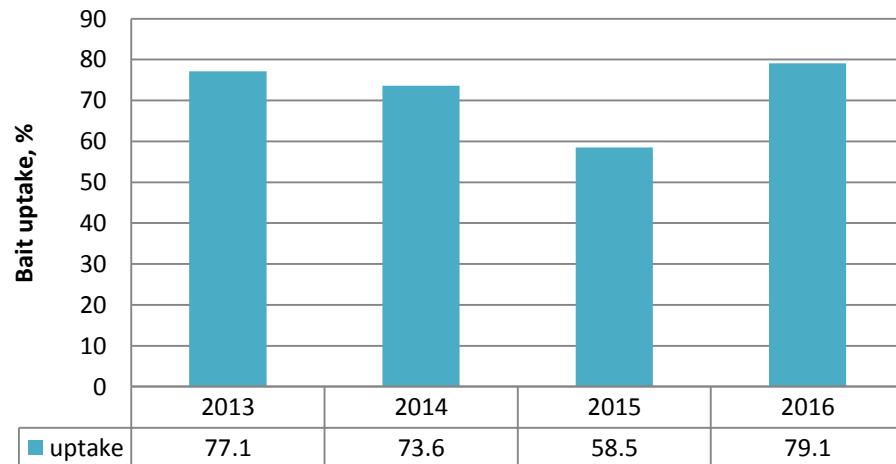


Region	Species	Serological tests				Tests for the presence of biomarker –Tetracycline (T)				IFT	Number of tests	Positive
		Type of test	Number of tests	Seropositive	% seropositive	Type of test	Number of tests	Biomarker present	% marker presence			
total	jackals	ELISA	93	8	8,6	T	296	234	79,1	IFT	296	0

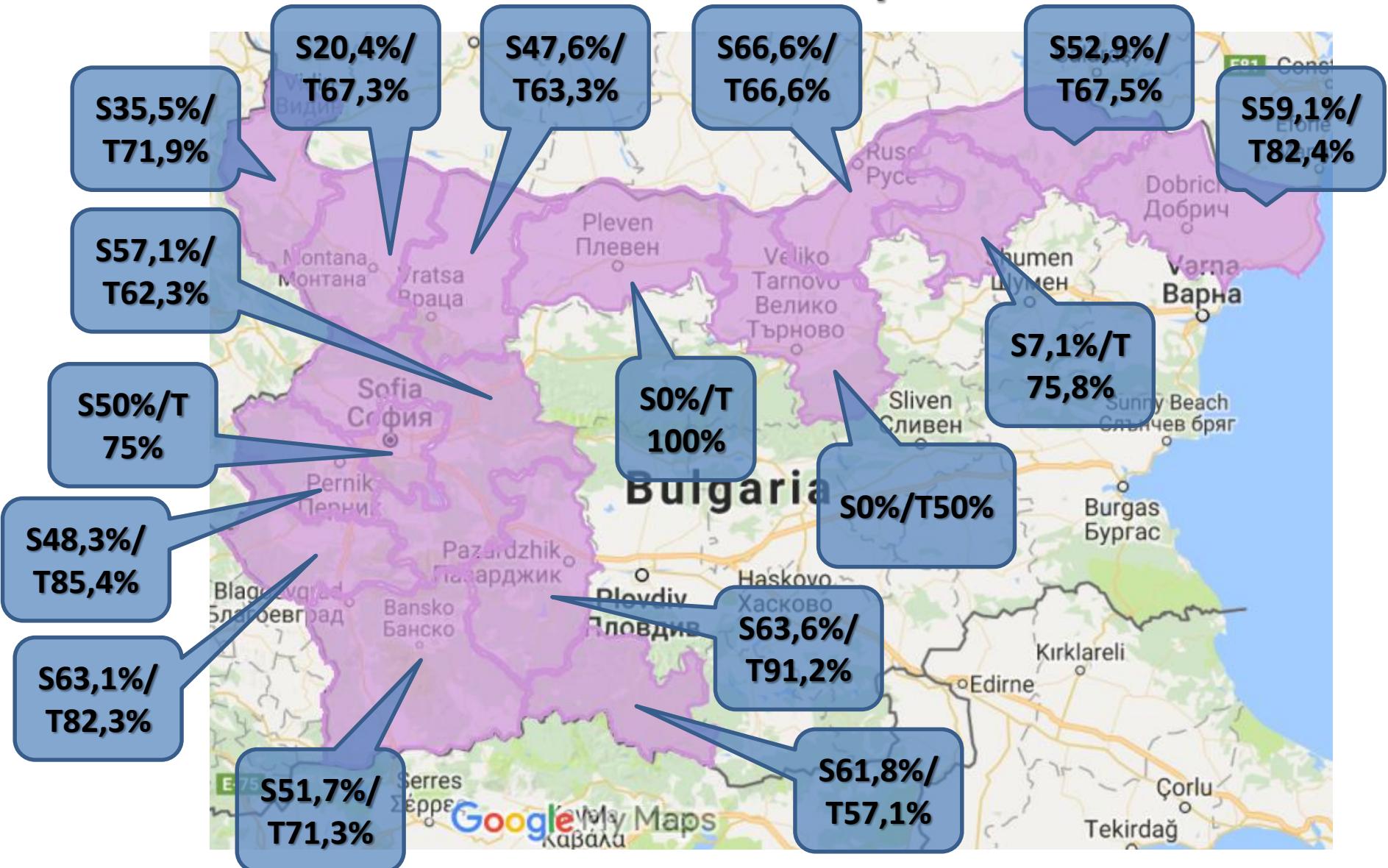
Seroconversion in jackals 2013 - 2016



Bait uptake in jackals 2013 - 2016



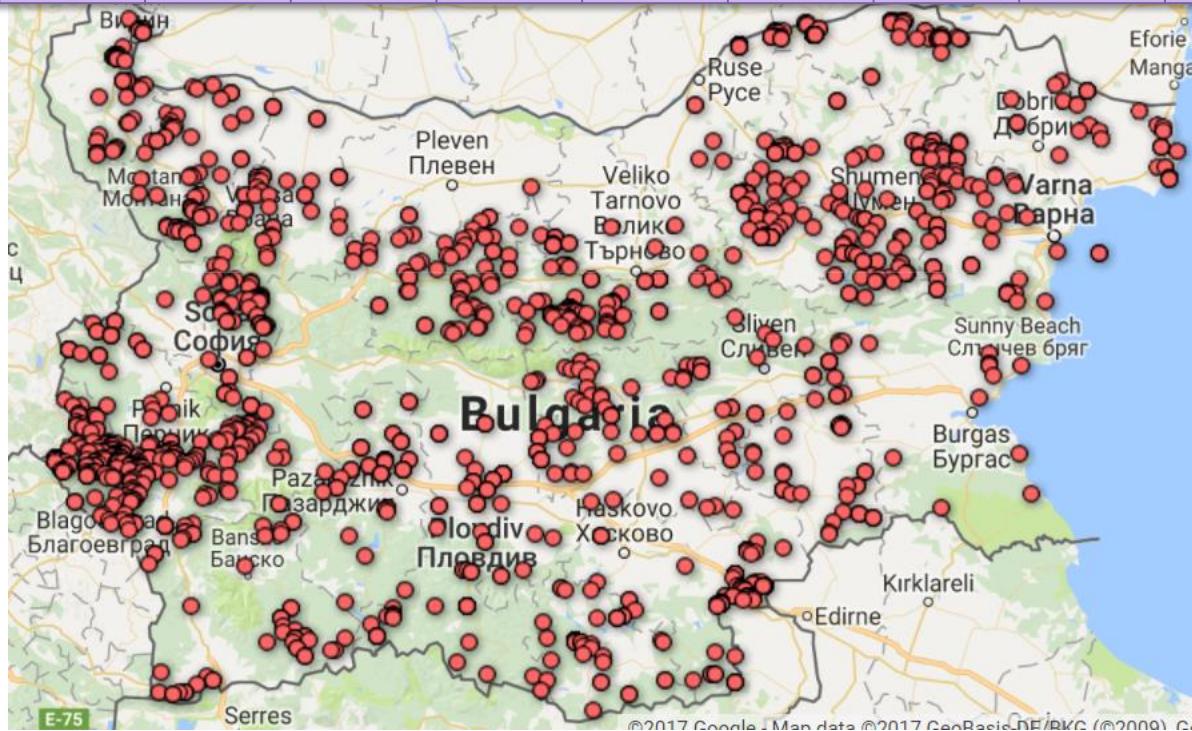
# Monitoring of vaccination effectiveness – seroconversion and bait uptake in foxes



# Surveillance activities – active surveillance



Species	IFT				Species	IFT			
	Type of test	Number of tests, vacc zones	Number of tests, non-vacc zones	Positive		Type of test	Number of tests, vacc zones	Number of tests, non-vacc zones	Positive
foxes	IFT	837	256	0	jackals	IFT	296	453	0



*Distribution of samples collected under active surveillance in 2016*

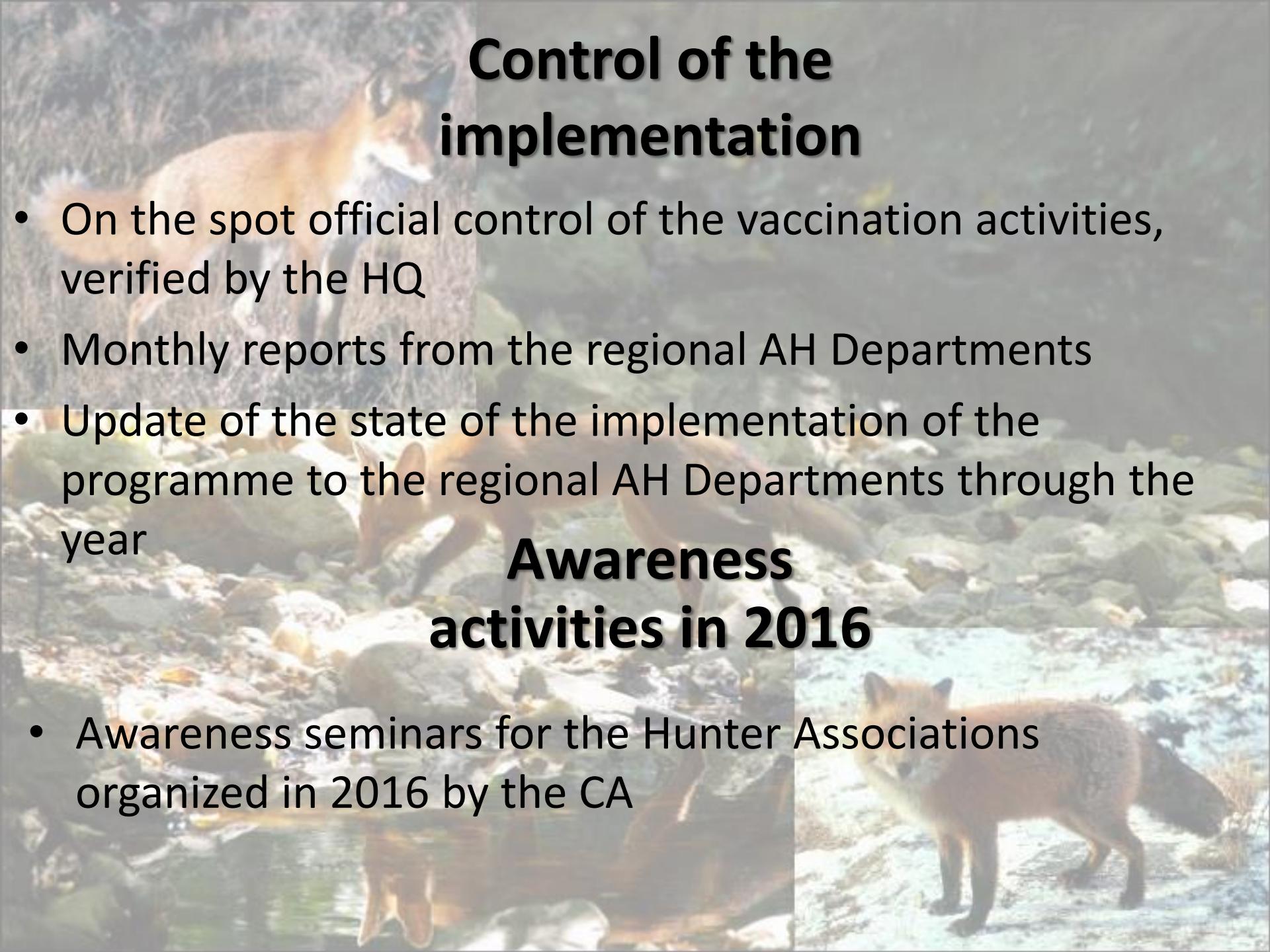


# Surveillance activities – passive surveillance

Region	Domestic animals				Wild animals				71
	dog	cat	cattle	goat	fox	badger	marten	jackals	
Total	9	2	2	2	25	1	1	26	



Distribution of samples collected under passive surveillance in 2016



# **Control of the implementation**

- On the spot official control of the vaccination activities, verified by the HQ
- Monthly reports from the regional AH Departments
- Update of the state of the implementation of the programme to the regional AH Departments through the year

## **Awareness activities in 2016**

- Awareness seminars for the Hunter Associations organized in 2016 by the CA

# **Thank you for your attention**

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