



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Director General

SANCO/10204/2013

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

Eradication and monitoring programme for Bluetongue

Bulgaria

Approved* for 2013 by Commission Decision 2012/761/EU

* in accordance with Council Decision 2009/470/EC



MINISTRY OF AGRICULTURE AND FOOD

BULGARIAN FOOD SAFETY AGENCY

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P R O G R A M
FOR
SURVEILLANCE OF BLUETONGUE DISEASE IN RUMINANTS TO BE
IMPLEMENTED IN THE REPUBLIC OF BULGARIA IN 2013

1. Programme identification

Member state: **Republic of Bulgaria**

Disease(s) ⁽¹⁾: **Bluetongue**

Year of implementation: **2013**

Reference of this document: Law on veterinary activities and ORDINANCE No 19 of 14.12.2005 for prevention, control and eradication of bluetongue in ruminants, implementing Directive 2000/75/EC and Regulation (EC) 1266/2007.

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Date of first submission to the Commission: **30.04.2012**

2. Historical data on the epidemiological evolution of the disease(s) ⁽¹³⁾:

For the first time bluetongue (BT) disease was detected in Bulgaria in July 1999 in the region of Burgas. Until then the disease had never been registered on territories situated beyond the 42nd parallel. From 06.07.1999 until the middle of August the disease was spread in four regions – Burgas, Yambol, Haskovo and Kurdgali, which are situated along the south country border with the Republics of Turkey and Greece.

The National Veterinary Service of Bulgaria (NVS)*, under the direction of Dr. Philip Mellor from the Community Reference Laboratory for bluetongue in Pirbright, Great Britain, immediately implemented the following measures to eradicate the disease:

- Destruction of sheep with clinical signs of bluetongue through “stamping out” and burial. 975 sheep were destroyed.
- Smoking with hot and cold solutions through spraying from airplanes and special guns of a territory with radius 20 km around the affected settlements.
- Disinsection in the vector habitats.
- Disinsection in the infected animal holdings and in the holdings located within the protection and surveillance zones. .
- Ban on the movement of susceptible animals from the affected regions to the country inside.
- Ban on grazing ruminants in the hours of highest vector activity.
- Disinsection of all vehicles entering and leaving the protection and surveillance zones.
- Washing the small ruminants in specially adapted baths using insecticide solutions with repellent action.
- The large ruminants were treated with insecticide solutions with repellent action using manual sprayers.
- Testing of blood samples from wild ruminants from the affected regions.

As a result of the measures taken the disease was limited to 20-30 km along the south border in the affected regions.

In 1999 a programme for surveillance of bluetongue in ruminants was launched along the southern border of the Republic of Bulgaria. The programme involved monthly testing (from May until October) of sentinel animals for detecting antibodies against the bluetongue virus.

In order to determine the bluetongue serotype samples were sent for typing to the Community Reference Laboratory for bluetongue in Pirbright, Great Britain. The laboratory analysis revealed presence of serotype No 9.

At the end of September 2001 bluetongue in ruminants was found for the second time in animals reared near the western border of the Republic of Bulgaria. The laboratory

* Since 2011 the NVS was reorganized into the structure of the Bulgarian Food Safety Agency

¹³ A concise description is given with data on the target population (species, number of herds and animals present and under the programme), the main measures (testing, testing and slaughter testing and killing, qualification of herds and animals, vaccination ...) and the main results (incidence, prevalence, qualification of herds and animals). The information is given according distinct periods if the measures were substantially modified. The information is documented by relevant summary epidemiological tables, graphs or maps.

investigations again revealed serotype No 9. Twenty two sheep showing clinical signs of the disease were destroyed. To eradicate the disease NVS immediately took the steps described above.

At the beginning of October 2006 in the framework of the surveillance programme, bluetongue seropositive animals not showing clinical signs of the disease were detected in the region of Burgas near the border with the Republic of Turkey. However no virus was detected. Since then no sero-positive animals have been detected on the territory of the country.

There was no positive case of Bluetongue detected in the country during the surveillance period 2007-2011.

3. Description of the submitted programme¹⁴:

The programme includes:

- Laboratory testing of blood samples from susceptible livestock and wild ruminants for detection of antibodies against the bluetongue virus;
- Destruction of ruminants showing clinical signs of the disease;
- Payment of compensations to the owners of the compulsory killed or slaughtered animals;
- Catching culicoides for quantity and species determination in case of emergency situation (BTV outbreak);
- Emergency vaccination against the disease if necessary;

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme: **01.01.2013 - 31.12.2013**

X Control

X Testing

X Emergency slaughter of ruminants reared near the animals infected with the BTV

X Killing of ruminants showing clinical signs of the disease.

X Emergency vaccination in case of outbreaks

Treatment

X Placing the products on the market

X Monitoring or surveillance

X Other measures (specify): treatment of susceptible animals with disinsectants with repellent if necessary.

X Disinsection of the sites of vector reproduction.

Remark: in case of detection of BT virus on the territory of the country and it is necessary vaccination to be carried out, the BFSa will supply vaccine against the disease and the coats will be requested to be reimbursed by the Commission.

¹⁴ A concise description of the programme is given with the main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence ...), the main measures (testing, testing and slaughter, testing and killing, qualification of herds and animals, vaccination ...), the target animal population and the area(s) of implementation and the definition of a positive case.

Surveillance of the health status of susceptible livestock

Blood samples for serological surveillance will be collected during the period 01.03.2013 – 30.11.2013 from sentinel animals bred in 30 villages in the 11 regions along the South and West borders of Bulgaria. The period between April and end of October is considered to have the highest vector activity. However sample collected in March will detect eventual earlier introduction of the virus and samples collected in November can detect Ab revealed during infection in late Oct or beginning of Nov. Active circulation of the vector in November is unlikely.

The sentinel animals should be bovines born after the last epidemics in 2001, which have never been in contact with BTV and have never been vaccinated against the disease (vaccination policy against BT has never been practiced in Bulgaria).

Passive surveillance of the health status of susceptible livestock will be carried out during the whole year during regular veterinary activities by official and private veterinarians for detection of clinical signs of BT particularly in sheep in the high risk areas. In case of suspicion blood samples will be taken for laboratory analysis to confirm or rule out the disease.

Depending on the epidemiological situation BFSa may order blood sampling for laboratory analysis of ruminants reared close to water reservoirs and quarantine stations, intended for intracommunity trade or export to third countries.

In case of unfavourable epidemiological situation in some member states it is possible BFSa to order collecting of blood samples from susceptible animals originating from affected countries. For control inside the country it is foreseen 500 samples to be taken from bovine animals bred within 20 km zone around holdings where BT susceptible animals coming from affected countries are kept.

Surveillance of the health status of the wild ruminant population

In case of emergency situation (outbreaks of BTV in Bulgaria or in neighbouring countries) and depending on the epidemiological situation BFSa may decide to carry out serological surveillance in susceptible wild ruminants (*Capreolus capreolus*, *Cervus elaphus*, *Dama dama*, *Ovis musimon*).

Vector /Culicoides spp/ control in case of outbreaks

In case of emergency situation (outbreaks of BTV in Bulgaria or in neighbouring country) and depending on the epidemiological situation BFSa may order collection in light traps of *Culicoides* spp. during the active vector period (mainly Apr-Oct) for species and quantitative determination. The light traps will be positioned in the high risk areas defined by risk analysis. The light traps will be placed per frequency defined by BFSa near animal holdings and water reservoirs, in 2 consecutive nights.

The vector samples will be sent to the laboratory of Arachnoentomology at the National Diagnostic Research Veterinary Institute (NDRVI) in Sofia for testing, accompanied by a

letter containing all data (date of sampling, GPS coordinates of the light traps, temperature and location) recorded during the collection.

Measures in case of suspected presence of bluetongue

In case of bluetongue suspicion the measures laid down in ORDINANCE No 19 of 14.12.2005 for prevention, control and eradication of bluetongue in ruminants implementing Directive 2000/75/EC and Regulation (EC) 1266/2007 will be enforced.

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme¹⁵:

4.2.1. Department “Contagious diseases” within Directorate “Animal health and welfare” at the Headquarters of BFSA have the following responsibilities:

1. To draft the programme for surveillance of bluetongue in ruminants and to submit it for approval to the European Commission.
2. To control the implementation of the surveillance programme.
3. To collect and analyse the data on the sentinel animals tested for bluetongue.
4. In case of disease outbreak – to test the ruminants in the protection and surveillance zones.
5. To summarize the data on seropositive animals.
6. To summarize data on the costs of surveillance from the regions with sentinel animals.
7. To keep a register in the database of all holdings with ruminants free of bluetongue.
8. To send annual report to the European Commission containing the data referred to in points 1-7.

4.2.2. At regional level the Regional Food Safety Department (RFSD) and the heads of departments “Animal health” have the following responsibilities:

1. To control the implementation of the bluetongue surveillance programme at regional level.
2. To collect and analyse the data on the animals tested for bluetongue in the region.
3. To summarize the data on seropositive animals.
4. To summarize the data on seropositive wild animals.
5. To summarize the data on the bluetongue surveillance costs incurred at regional level.
6. To keep a register in the database of all holdings with ruminants free of bluetongue.
7. To collect and send samples for species and quantity determination of caught culicoides.
8. To send annual reports containing the data referred to in points 1-7 to Directorate “Animal health” at BFSA.

4.2.3. The municipal veterinarians have the following responsibilities:

1. To control the implementation of the programme for surveillance of bluetongue in the relevant municipality.
2. To control the sampling and the sending of samples from sentinel animals.

¹⁵ Describe the authorities charged with supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved.

3. To collect and analyse the data on the animals tested for bluetongue in the veterinary units located on the territory of the relevant municipality.
4. To summarize the data on seropositive animals (domestic and wild) from the veterinary units located on the territory of the relevant municipality.
5. To summarize the data on the bluetongue surveillance costs incurred by the relevant municipality.
6. To keep a register in the database of all holdings with ruminants free of bluetongue.
7. To send annual reports containing the data referred to in points 1-6 to Directorate “Animal health” at the relevant RFSD.

4.2.4. The veterinary private practitioners have the following responsibilities:

1. To take and send samples for bluetongue testing.
2. To collect and analyse the data on the tested ruminants for bluetongue from the animal holdings located on the territory of the relevant veterinary unit.
3. To summarize data on seropositive animals from the animal holdings located within the relevant veterinary unit.
4. To summarize the data on the bluetongue surveillance and eradication costs incurred at the level of the respective veterinary unit.
5. To create a list of registered ruminant holdings free of bluetongue.
6. To carry clinical examinations of the health status of susceptible livestock and notify suspect cases to official vet.
7. To send 3 monthly reports to the municipal veterinarian containing the data referred to in points 1-6.

4.2.5. Diagnostics: performed only by the Reference Laboratory for exotic diseases at the National Diagnostic Research Veterinary Institute in Sofia.

The National Diagnostic Research Veterinary Institute (NDRVI) in Sofia, Laboratory for Arachnoentomology is responsible for quality and quantitative determination of the vectors and vectors control.

4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented⁸.

Serological surveillance of sentinel animals will be implemented in 30 villages in the regions defined as high risk areas like: Burgas, Yambol, Haskovo, Kargali, Smolyan, Blagoevgrad, Kiustendil, Pernik, Sofia region, Montana and Vidin (Fig. 1). In addition 500 blood samples will be taken from the bovines within 20 km zone around holdings or collection centers where BT susceptible animals coming from affected countries are kept. In this way control of the disease will be carried out in the inside parts of the country.

Passive surveillance will be carried out on the whole territory of Bulgaria through out the year to detect clinical signs of the disease. 100 blood samples are planned to be tested from susceptible livestock in case of suspicion of the disease.

⁸ Describe the name and denomination, the administrative boundaries, and the surface of the administrative and geographical areas in which the programme is to be applied. Illustrate with maps.

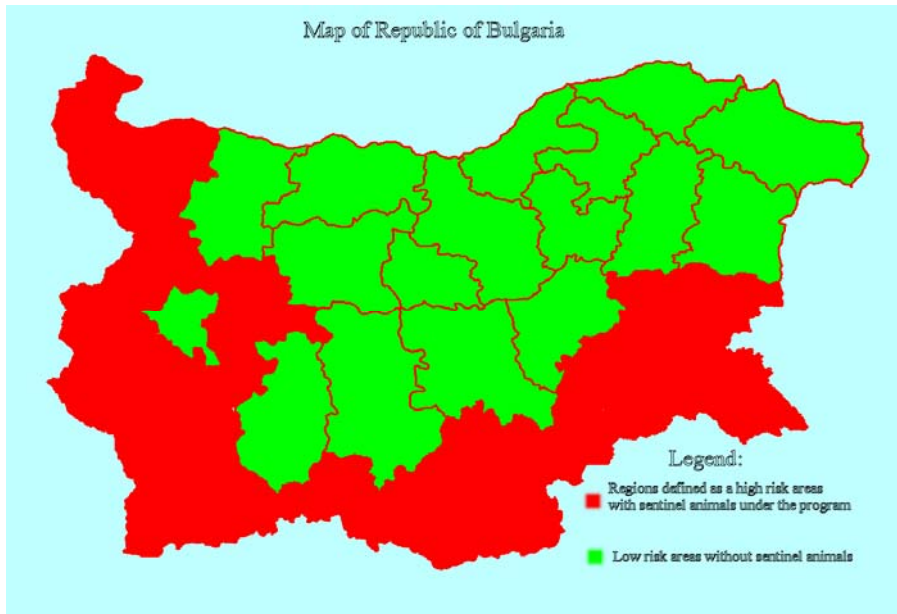


Figure 1: Regions defined as BT high risk areas

4.4. Measures implemented under the programme⁹

4.4.1. Measures and terms of legislation as regards the registration of holdings:

According to article 51 of the Law on Veterinary Activities the animals are subject to identification and the animal holdings – to registration by BFSA and Regulation 1760/2000 on the terms and conditions for identification of animals, registration of animal holdings and access to the database for animal identification and registration, implementing Regulation 21/2004.

4.4.2. Measures and terms of legislation as regards the identification of animals¹⁰:

According to article 51 of the Law on Veterinary Activities the animals are subject to identification and the animal holdings – to registration by BFSA and Ordinance No 61 on the terms and conditions for identification of animals, registration of animal holdings and access to the database for animal identification and registration, implementing Directives 2001/84 and 92/102.

4.4.3. Measures and terms of legislation as regards the notification of the disease:

Measures are undertaken pursuant to article 124 of the Law on Veterinary Activities and Ordinance No 23 of 14.12.2005 laying down the terms and conditions for notification and registration of contagious diseases of animals implementing EU Directive 82/894.

4.4.4. Measures and terms of legislation as regards the measures in case of a positive result¹¹:

⁹ Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.

¹⁰ Not applicable for poultry

Measures are undertaken pursuant to article 47, par. 1 of the Law on Veterinary Activities the BFSA defining the measures for prevention, control and eradication of diseases, including movement bans and pursuant to Art. 45, par. 3, p. 1 of ORDINANCE No 19 of 14.12.2005 for prevention, control and eradication of bluetongue in ruminants implementing Directive 2000/75/EC and Regulation (EC) 1266/2007.

4.4.5. Measures and terms of legislation as regards the different qualifications of animals and herds:

Measures are undertaken pursuant the Ordinance laying down the terms and conditions for spending the funds allocated to cover the epizootic risks. According to article 6, par. 1 and par. 2 of the same Ordinance a distinction is made between stock and pedigree breeding animals.

4.4.6. Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease and the regular inspection of the holdings or areas concerned¹²

According to article 47, par. 2 of the Law on Veterinary Activities restrictive measures are imposed with regard to the movement of infected animals.

4.4.7. Measures and terms of legislation as regards the control (testing and vaccination) of the disease:

Measures are undertaken pursuant to ORDINANCE No 19 of 14.12.2005 for prevention, control and eradication of bluetongue in ruminants.

4.4.8. Measures and terms of legislation as regards the compensation for owners of slaughtered and killed animals:

Owners of slaughtered and killed animals are compensated according to the Ordinance laying down the terms and conditions for spending the funds allocated to cover the epizootic risks, compensations are paid to the owners of the emergency killed or slaughtered animals.

5. General description of the costs and benefits¹³:

1. Costs of sampling and transportation of samples for testing to the National Reference Laboratory for exotic diseases in Sofia.

¹¹ A short description is provided of the measures as regards positive animals (slaughter, destination of carcasses, use or treatment of animal products, the destruction of all products which could transmit the disease or the treatment of such products to avoid any possible contamination, a procedure for the disinfection of infected holdings, the therapeutic or preventive treatment chosen, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter and the creation of a surveillance zone around the infected holding, ...).

¹² A short description of the control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease and the regular inspection of the holdings or areas is provided.

¹³ A description is provided of all costs for the authorities and society and the benefits for farmers and society in general.

2. Costs for purchase of necessary diagnostic kits.
3. Cost of compensations payable to the owners of emergency slaughtered and killed ruminants.
4. Costs of remunerations for the people implementing the programme.
5. Surveillance of the bluetongue disease and disease eradication in case of outbreak.
6. In case of vaccination – cost for vaccines and its application.

6. Data on the epidemiological evolution during the last five years¹⁴

6.1. Evolution of the disease

6.1.1. Data on evolution of the disease¹⁵

During the past five years no BT virus has been detected in Bulgaria. At the beginning of October 2006 as a result of the testing of samples from sentinel animals under the surveillance programme, bluetongue seropositive animals not showing clinical signs of the disease were detected in the region of Burgas near the border with the Republic of Turkey. However no virus of the disease could be found. Since then no seropositive animals have been detected on the territory of the country.

6.2. Stratified data on surveillance and laboratory tests

6.2.1 Stratified data on surveillance and laboratory tests (one table per year and per disease/species)

Year: 2007

Animal species/category (^b): bovines & goats

Disease (^a): bluetongue

Serological tests: Competitive ELISA

Region	Serological tests	
	No of samples tested	No of positive samples
Sofia district	140	0
Kjustendil	308	0
Blagoevgrad	280	0
Vidin	280	0
Montana	280	0
Smolyan	280	0
Pernik	140	0
Burgas	840	0
Yambol	280	0
Kardjali	840	0
Haskovo	420	0
Total	4088	0

Year: 2008

Animal species/category (^b): bovines & goats

¹⁴ The data on the evolution of the disease are provided according the tables below where appropriate.

Disease ^(a): bluetongue
 Serological tests: Competitive ELISA

Region	Serological tests	
	No of samples tested	No of samples tested
Sofia district	177	0
Kjustendil	134	0
Blagoevgrad	256	0
Vidin	222	0
Montana	118	0
Smolyan	141	0
Pernik	72	0
Burgas	68	0
Yambol	104	0
Kardjali	130	0
Haskovo	100	0
Total	1522	0

Year: 2009 Animal species/category ^(b): bovines & goats
 Disease ^(a): bluetongue
 Serological tests: Competitive ELISA

Region	Serological tests	
	No of samples tested	No of samples tested
Sofia district	342	0
Kjustendil	345	0
Blagoevgrad	727	0
Vidin	563	0
Montana	352	0
Smolyan	329	0
Pernik	252	0
Burgas	279	0
Yambol	379	0
Kardjali	534	0
Haskovo	277	0
Total	4379	0

Year: 2010 Animal species/category ^(b): bovines & goats
 Disease ^(a): bluetongue
 Serological tests: Competitive ELISA

Region	Serological tests	
	No of samples tested	No of samples tested
Sofia district	280	0
Kjustendil	315	0
Blagoevgrad	637	0

Vidin	364	0
Montana	270	0
Smolyan	390	0
Pernik	135	0
Burgas	260	0
Yambol	397	0
Kardjali	360	0
Haskovo	420	0
Total	3828	0

Year: 2011

Animal species/category ^(b): bovines & goats

Disease ^(a): bluetongue

Serological tests: Competitive ELISA

Region	Serological tests	
	No of samples tested	No of samples tested
Sofia district	215	0
Kjustendil	235	0
Blagoevgrad	601	0
Vidin	280	0
Montana	210	0
Smolyan	345	0
Pernik	120	0
Burgas	200	0
Yambol	271	0
Kardjali	270	0
Haskovo	210	0
Total	2957	0

7. Targets

7.1. Targets related to testing

7.1.1. Targets on diagnostic tests: **bluetongue surveillance on the territory of the Republic of Bulgaria.**

7.1.1.1. Number and specification of tests:

Description of the used serological tests: competitive ELISA

Description of the used microbiological or virological tests: in case of ELISA positive results, the PCR tests should be performed.

Plan for BT serological surveillance in 2013 - /Period: **01.03.2013 – 30.11.2013/**

Disease ^(a): Bluetongue

Animal species: bovines *

Region	Total No of blood samples from bovines to be tested for the region	No of samples per month to be tested	From the following Settlements
Burgas	495	55	Malko Tarnovo – 20 bovines Village of Kosti - 20 bovines Belevren – 15 bovines
Yambol	405	45	Village of Strandzha - 15

			bovines Mamarchevo -15 bovines Lesovo - 15 bovines
Haskovo	405	45	Matochina – 15 bovines Svilengrad – 15 bovines Mandritsa - 15 bovines
Kardjaly	405	45	Chernichevo – 15 bovines Kirkovo - 15 bovines Thokachka - 15 bovines
<u>Smolyan</u>	405	45	Zlatograd - 15 bovines Poljana - 15 bovines Gorna Arda - 15 bovines
Blagoevgrad	675	75	Ilinden –15 bovines Marikosteno – 15 bovines Godeshevo- 15 bovines Topolnitsa - 15 bovines Padesh - 15 bovines
Kjustendyl	315	35	Tsurvalitsa - 15 bovines Grumlyano–15 bovines Trekljino - 10 bovines
Pernik	135	15	Trun - 15 bovines
Sofia	270	30	Kalotina - 15 bovines Godech - 15 bovines
Montana	270	30	Berkovitzta – 15 bovines Chiprovtsi - 15 bovines
Vidin	270	30	Chuprene - 15 bovines Bregovo - 15 bovines
Other	500 **		Settlements from the whole territory of Bulgaria
Total	4550 blood samples		

* The sampled bovines should be animals born after the last epidemics in 2001, which have never been in contact with BTV and have never been vaccinated against the disease (vaccination policy against BT has never been practiced in Bulgaria).

**In addition 500 blood samples will be taken from the bovines within 20 km zone around holdings or collection centers where BT susceptible animals coming from affected countries are kept. In this way control of the disease will be carried out in the inside parts of the country.

Note: Additional 100 blood samples are foreseen to be taken from bovines, sheep and goats in case of suspicion in the framework of the passive surveillance. If the epidemiological situation requires BFSA may order collection and testing of 50 blood samples from susceptible wild ruminants.

8. Detailed analysis of the cost of the programme¹⁶ for the period 01.04.2013 - 30.10.2013

Costs related to	Specification	Number of units	Unitary cost in euro	Total amount in euro	Community funding requested (yes/no)
<i>1. Testing</i>					
1.1. Cost of the analysis	Competitive ELISA	4550 *	2	9100	yes
		100 **	2	200	yes
		50 ***	2	100	yes
	PCR	100	10	1 000	Yes
1.2. Cost of sampling		4700	0,20	940	yes
1.3. Other costs – packaging and transportation of samples to the laboratories		4700	0,20	940	yes
Total:				12 280	yes
<i>2. Vaccination (only in case of emergency situation)</i>					
2.1. Purchase of vaccine/treatment		140 000	0.45	63 000	Yes
2.2 Application of vaccine					
bovine		20 000	1.5	30 000	Yes
Sheep/ goats		120 000	0.75	90 000	Yes
Total:				183000	

* Serological tests of bovines indicated in the table in point 7.1.1.1.

** Serological tests of bovines, sheep and goats in the framework of the passive surveillance

*** Serological tests of susceptible wild ruminants

Total amount requested for the programme for surveillance of bluetongue – **195 280** euro.

Name and signature of operational Director:

/Dr.Yordan Voynov, Executive Director of BFSA/

¹⁶ Fixed costs should not be included. All amounts are VAT excluded.