



**Programmes for eradication, control and surveillance of animal diseases and zoonoses  
submitted for obtaining EU financial contribution**

**Annex I.b: Programme for the eradication of bovine tuberculosis, bovine brucellosis or  
sheep and goat brucellosis (*B. melitensis*)**

Member States seeking an EU financial contribution for national programmes of eradication, control and surveillance shall submit online this document completely filled out by the 31 May of the year preceding its implementation (Art. 2 of Decision (EU) 2015/2444 and Art. 12 of Regulation (EU) No 652/2014).

For multiannual programmes already approved, this document shall also be filled out and submitted after selection of the options:

This programme is multiannual: "YES"

"Funding request for subsequent year of already approved multiannual programme"

If encountering difficulties:

- concerning the information requested, please contact [SANTE-VET-PROG@ec.europa.eu](mailto:SANTE-VET-PROG@ec.europa.eu).

- on the technical point of view, please contact [SANTE-BI@ec.europa.eu](mailto:SANTE-BI@ec.europa.eu), include in your message a printscreen of the complete window where the problem appears and the version of this pdf: 2019 1.04

**Instructions to complete the form:**

- 1) You can attach documents (.doc, .xls, .pdf, etc) to complete your report using the button "Add attachments" on the last page of the form.
- 2) Before submitting this form, please use the button "Verify form"(bottom right of each page). If needed, complete your pdf document as indicated.
- 3) When you have finished completing this pdf document, save it on your computer.
- 4) Verify that your internet connection is active and then click on the "Submit notification" button and your pdf document will be sent to our server. A submission number will appear on your document. Save this completed document on your computer for your record.
- 5) For simplification purposes you are invited to submit multi-annual programmes.
- 6) You are invited to submit your programmes in English.

Member state : PORTUGAL

Disease : Bovine Tuberculosis

Species : Bovines

This program is multi annual :

Request of Community co-financing for year :

1. Contact data

Name : Yolanda Vaz Phone : 00351213239650

Email : [secdspa@dgav.pt](mailto:secdspa@dgav.pt) Your job type within the CA : Head of Animal Protection Unit

**Submission Date**  
**28/09/2018 12:10:42**

**Submission Number**  
**1538133045223-14777**



# Standard requirements for the submission of programme for eradication, control and monitoring

## 2. *Historical data on the epidemiological evolution of the disease*

*Provide a description on the target population (species, number of herds and animals present and under the programme), and the main results in the last 5 years (incidents, prevalence, qualification of herds and animals). The information is given for distinct periods if the measures were substantially modified.*

*(max. 32000 chars) :*

Portugal is implementing the co-financed bovine tuberculosis eradication programme (BTEP) since 1991, based on the application of comparative intradermal tuberculin test (CITT). Holdings covered by the programme have a health status attributed in accordance with Directive 64/432/EEC of 26 June and its amendments, Decree-Law No 272/2000 of 8 November 2000, Directive 2008/73/CE of 15 July and Decree-Law No 79/2011 of 20 June.

In 1993, in the beginning of the BTEP, herd prevalence was 0.2%. The programme was progressively consolidated over the years and by 2012 Algarve, one of the 5 veterinary regions of the mainland Portugal, was recognized as officially free of tuberculosis (Decision 2012/204/EU of 19 April 2012). Over the past 5 years, the BTEP achieved a 20% reduction, from 0.35% of positive holdings (herds with at least one positive animal to CITT) in 2013 (Mainland and Azores) to 0.28% in 2017 (please see Annex 8). From 2016 to 2017, there was stability in the percentage of positive holdings.

The BTEP covered 99.7% of the 31,643 holdings under the programme (comprising the testing of 1,086,122 bovines) and the evolution of the percentage of positive holdings between 2016 and 2017 reflects different situations in the 4 mainland regions under the programme and In the Azores:

- Norte: from 0.12% to 0.08%
- Centro: from 0.11% to 0.16%
- LVT: from 0.39% to 0.35%
- Alentejo: from 1.09% to 1.24%
- Azores: from 0.13% to 0.06%.

At the end of 2016 there were 62 non indemne herds (T2 status) while at the end of 2017 programme there were 68 T2 herds from a universe of 37,516 herds (Mainland and Azores).

Region Norte - the bovine production is characterized by small production units, averaging 11.9 bovines per herd controlled. Tuberculosis has been decreasing over the last 5 years, from 0.20% to 0.08%. In the end of 2017 there were a total of 9 herds with T2 status from a universe of 17,083 herds.

Region Centro - also presents a majority of small holding, averaging 18.3 bovines controlled per herd. In certain areas, *M. bovis* circulates in wild animals (cervids and wild boars) constituting a serious risk of extensive production holdings. The percentage of positive holdings has been decreasing over the last 5 years, from 0.35% to 0.16% (54.3%) but in the end of 2017 this region had 14 herds with T2 status from a universe of 7,537 herds, while there were only 8 in 2016.

Region Lisboa e Vale do Tejo - has an average size of controlled bovine per holding of 65.3 animals. Some stability was observed in the programme results over the last 5 years, varying from 0.29% to 0.35% positive holdings. In the end of 2017 this region had only 2 herds with T2 status from a universe of 1,469 herds.

Region Alentejo has a different production system, with larger herds with 133.6 bovines controlled per herd on average, most reared in extensive systems, where farms have their own land without much contact between herds. However there is a recognized risk of contact with infected wild boars and cervids in certain areas. Stability was also observed in Tuberculosis programme results over the last 5 years, with herd prevalence varying from 0.94% to 1.24%. In the end of 2017 this region had 37 herds with T2 status from a universe of 4,538 herds, while there were 39 in the previous year.

## Standard requirements for the submission of programme for eradication, control and monitoring

Algarve region - carries out the surveillance for tuberculosis-free regions in accordance with Article 8 of Directive 64/432/EEC of 26 June 1964.

The BTEP in the Autonomous Region of the Azores was launched in January 2004. In 2007, and for the first time (and over the preceding 20 years), 2 animals tested positive in the island of S. Miguel and required the implementation of the officially stipulated measures to eliminate this outbreak. . In the last 17 years, In the RAA were carried out 764.053 intradermal tuberculin tests.

Two other infected animals were diagnosed in October 2012 and May 2014. The epidemiological data between 2010 and 2017 is presented in Graph 2 and 3. In 2017 one positive but non-confirmed animal was identified in the island of Faial.

The Autonomous Region of Madeira (RAM), have started the bovine tuberculosis eradication programme in 2018 using the comparative intradermal tuberculin test (CITT) and no evidence of infection was so far obtained. RAM have also systematic official meat inspection in slaughterhouse.

In summary, in 2017, at national level, a total of 87 positive herds were recorded, with 537 positive animals. From the 77 herds investigated with collection of organs from positive slaughtered animals, 45 were confirmed with isolation of *Mycobacterium bovis*. The 249 histopathological examinations and 180 bacteriologic tests resulted in 110 animals with positive isolation of *M. bovis*.

Post-mortem inspection at slaughterhouses and investigation of lesions (histopathology and bacteriology) is a routine procedure. The decline in the prevalence on holdings also lead to a decline in the number of suspect lesions detected at slaughter with confirmation of the disease, which decreased from 48 in 2012 to 32 in 2017.

Compulsory pre-movement testing is being applied to avoid the entrance of positive bovine in T3 herds, with the following data registered for Mainland in 2017:

- Herds: 27.461

- Animals: 337.899

BTEP is in the pre-eradication phase and further progress of the programme has revealed to be difficult to achieve, requiring close follow-up of outbreaks and new measures in risk areas of bovine-wildlife interface.

### 3. Description of the submitted programme

*Provide a concise description of the programme with its main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence), the main measures (sampling and testing regimes, eradication measures to be applied, qualification of herds and animals, vaccination schemes), the target animal population, the area(s) of implementation and the definition of a positive case.*

*(max. 32000 chars) :*

**Objectives:** The purpose of the Portuguese Bovine Tuberculosis Eradication Program, both in the mainland and in the Autonomous Region of Azores and Madeira is to reduce the herd incidence and prevalence creating officially free areas and achieving the eradication of the disease. Early diagnosis and good containment of the infection is therefore necessary, while implementing also the protection of free herds through the control of animal movements or other risk contacts.

**Duration:** This program is presented for a period of one year.

**Coverage:** The programme will be implemented on the entire territory of mainland Portugal with the exception of the Algarve (which has officially tuberculosis-free status), in the Autonomous Region of the Azores and in the Autonomous Region of Madeira.

See map in Annex 2 of the territory of mainland Portugal.

In the mainland the programme covers all bovines over six weeks of age in accordance with Annex A, I, 2

## Standard requirements for the submission of programme for eradication, control and monitoring

(c) of Directive 64/432/EEC.

Frequency of CITT depends on the herd's health status and on the epidemiological indicators of the region. All animals over 6 weeks of age in holdings which are not officially tuberculosis-free are subject to CITT testing until the herd achieves disease-free status, with the exception of males in isolated officially free herds intended for slaughter in areas with 1% or less herd prevalence.

In the Azores, according to the last approved Plans, each island will reach, individually, the status of "officially free of bovine tuberculosis island". Testing will be applied simultaneously to 25% of holdings with bovines over 24 months of age and to 25% of all animals of that age in all islands. Santa Maria, Flores and Corvo have reached the goal of seven years without tuberculosis as established in the legislation (Directive), and the Veterinarian Services of Azores already presented to the Commission the proposal of the status of "officially free of bovine tuberculosis island".

Sampling and testing scheme in Portugal is presented in point 4.4.6 - Tests used and sampling and testing schemes.

Diagnosis: The official diagnostic test, as already mentioned, is the CITT, which considers positive, negative and doubtful results. Following a doubtful result, a new CITT test is carried out 42 days later, to clarify the result. In these cases the positivity of the animal is determined by a non-negative result (positive or doubtful) in this second test. In infected holdings the decision on positivity is based on the reaction to bovine tuberculin (strict interpretation).

The gamma-interferon test is a complementary diagnostic test which is used, upon decision of the official veterinary services, in the following situations (see Annex 5):

- a) When there is a significant number of doubtful results in the IDTC ;
- b) as an alternative to slaughter of all animals on infected holdings where animals successively test positive in the intradermal tuberculin test (chronic positivity).

Case definition: Under this program a positive case is an animal with positive (or doubtful at the retesting) result in the CITT test applied in accordance to Regulation 1226/2002 and an animal with detection of tuberculosis compatible lesions on routine examination at slaughterhouse; an infected animal is the one with isolation of a Mycobacteria of the M. tuberculosis complex or with histopathological characteristic lesion(s)

Under this program, an "Epidemiological Unit", is a herd or a set of herds in a given geographical area, under the same management techniques and with frequent contacts to each other, considered as a whole from the epidemiological point of view (as paragraph d) of art. 2 of DL 272/2000 of November 8).

Classification of holdings: All the holdings covered by the programme have a health status in accordance with Directive 64/432 EEC of 26 June and Decree-Law No 272/2000 of 8 November 2000. Health status is attributed by the official veterinary services, and are the following: Reproductive herds: officially disease free (T3) and non-disease free, including herds which are undergoing health measures (T2) and infected (T2.1 – with isolation of M. bovis). The classification Scheme is explained in Annex 3.

Fattening herds: classified as free "EB4T3L4" or suspended "ES". Non classified "E1" fattening herds are at present being classified and will evolve to "EB4T3L4" holdings.

In order to classify the cattle herds in Madeira, all bovines older than 6 weeks will be tested (CITT) twice during 2018 but in 2019, those already classified will be subjected to one test.

The dynamic assignment, maintenance and change of health status defined in the program is described in point 4.4.4 - Qualifications of animals and herds including detailed reference to relevant Union legislation and its implementation in the Member State for this disease.

Data management: Surveillance data regarding herds, animal and actions regarding the programme is inserted and managed by a computerized information system PISA.net, connecting OPP, DSAVR, NRL and DSPA (please see point 4.2.). Data is analyzed for the implementation of the programme and for evaluation and reporting.

Measures in positive holdings: In the non-free herds the following testing methodology is applied:

- a) In the herds confirmed as infected with tuberculosis by means of isolation of M. bovis (T2.1), all

## Standard requirements for the submission of programme for eradication, control and monitoring

animals over 6 weeks of age are tested, 42 days after removal of the last animal with positive reaction. The reading of this test takes into account reaction to bovine tuberculin (strict interpretation). If no more positive reactions are found, two consecutive tests are carried out with a minimum of 60 days apart, to all farm animals over 6 weeks of age. If results obtained in these last tests are both negative the herd reaches the T2 status.

b) In the T2 status, all of the bovine animals over 6 weeks of age are tested after 6 months of achieving T2 status. If all cattle react negatively to this test the herd acquires T3 status. Other measures such as restriction of movements, slaughter and compensation of positive animals, and others are explained in point 4.4.9 - Measures in case of a positive result.

Measures following sanitary inspection suspicion notification: The detection of suspected tuberculosis lesions in post mortem routine examination at slaughterhouse leads to the collection of samples which are sent to NRL for histopathological and bacteriological diagnosis.

Trace back investigation is carried out to identify herds where that animal may have been. Consequently, in those other contact holdings, all cattle over 6 weeks of age are submitted to CITT test, and any positive reaction conducts to the previously described procedures.

Measures regarding animal movement: Animals from officially disease-free herds alone may be moved without restrictions. This control is based on the updated information concerning herds' status recorded in PISA net which interacts with the database for the registration and identification of bovine animals (SNIRA).

Herds with suspended (T3S) or not disease-free status (T2 and T2.1) are only allowed to move animals to slaughter, under official control, and regular checks on movements are scheduled in SNIRA.

### 4. Measures of the submitted programme

#### 4.1 Summary of measures under the programme

*Duration of the programme:* 2019 - 2019

- Eradication
- Testing
- Slaughter of animals tested positive
- Vaccination

*Other, please specify*

# Standard requirements for the submission of programme for eradication, control and monitoring

## 4.1.1 Timeline for the eradication

*Provide the timeline foreseen for the eradication with detailed justification (max. 32000 chars) :*

The tuberculosis eradication programme in mainland Portugal in 2017 covered 99.7% of herds under the programme and the percentage of positive herds was 0.19% (in comparison with 0.28% in 2016). These numbers suggest a stable situation: by the end of 2016, there were 62 non indemne T2 herds and in 2017 there were 68.

The presence of infected wildlife and the continuous threat of transmission to cattle in extensive production systems, poses relevant challenges to the progress of eradication in certain areas of the country.

Taking into consideration the need of 6 consecutive years with 99.9% officially free herds, the goal would be to eradicate Bovine tuberculosis by 2025.

In the Azores, the progress has been good (see graphics for Açores), without any isolation of the agent since 2014. It is expected that Faial Island may obtain the officially free status for bovine tuberculosis in 2019; Terceira and S. Jorge in 2020 and S. Miguel in 2021.

Regarding Madeira the foreseen timeline is now difficult to determine, if the absence of *M. bovis* is confirmed, it will take 6 years to achieve the indemne status (2023).

## 4.1.2 Interim targets in relation to the timeline for eradication

*based on herd prevalence and herd incidence at different periods in link with the timeline for eradication (max. 32000 chars) :*

According to the Working Document SANTE/2017/10186: Guidelines for the Union co-funded programmes of eradication, control and surveillance of animal diseases and zoonoses for the years 2018, the expected results (targets) were the following: Herd prevalence – 0.26% and Herd incidence – 0.20% The perspectives for the achievement of the foreseen targets are therefore positive. In 2019 it is expected that prevalence reaches 0.24% and incidence 0.17%.

In Alentejo and Centro regions where the main problems are identified, there is a persistent risk of *M. bovis* transmission from infected deer and wild boars to bovines maintained in extensive beef production systems. Efforts are being made to work with hunters regarding the disposal of by-products and with farmers to apply measures to avoid contacts. However it will be difficult to completely avoid in these regions sporadic introduction of tuberculosis in the herds.

The interim targets are to achieve by the end of 2020 a 0.14% prevalence and 0.08% incidence and by 2023 a 0.06% prevalence and 0.01% incidence, in order to achieve eradication by 2025.

## 4.2 Organisation, supervision and role of all stakeholders involved in the programme

*Describe the authorities in charge of supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved stakeholders. Explain which actions are taken to actively involve the stakeholders in the implementation of the programme.*

## Standard requirements for the submission of programme for eradication, control and monitoring

(max. 32000 chars) :

The Directorate-General for Food and Veterinary (DGAV) is the authority responsible for the control and eradication of bovine tuberculosis and its central service (DSPA) is responsible for coordinating and monitoring the programme.

In the mainland, the 5 Directorates for Regional Food and Veterinary Services (DSAVR), decentralized services of DGAV (Norte, Centro, Lisboa e Vale do Tejo (LVT), Alentejo and Algarve), are responsible not only for overseeing the implementation of the various activities under the Programme in their area but also for the attribution of herd status and the official control of measures carried out. DSAVR monitors the execution of CITT and the compliance with the legal requirements arising from the agreements signed with OPPs. Routine surveillance in the slaughterhouse is performed by veterinary inspectors of DSAVRs.

The diagnostic tests on holdings are carried out by official veterinarians of the livestock producers' associations (OPP), which registers the results of the test in PISA.Net.

The national reference laboratory INIAV, I.P. is responsible for the post-mortem diagnosis (histopathology and bacteriological tests on suspicious tuberculosis lesions samples) and Gama interferon test.

In brief, the organization of activities of the programme is the following:

OPP submits an annual health programme to DSAVR. The programme is analysed and approved, regarding the compliance with the established rules. Field activities are carried out by OPP, namely carry out CIIT and animal identification, and also record the results of CITT in the national animal health programme (PISA.Net).

DSAVR are in this way informed whenever positive results are detected. DSAVR validates or changes the health status of the herd in light of the results of CITT, considering also the results of histopathological and bacteriological tests obtained latter from INIAV in the samples collected from positive or suspected animals.

In face of positive results, DSAVR sets the procedures described in point 4.4.9, including:

- In T3 herds the health status is suspended and the holders are directly notified of the results obtained together with the imposition of restrictions on animal movement. The positive animals are officially identified for slaughter and transported to the slaughterhouse under official control.
- In T3S, T2 or T2.1 herds the holders are informed of the results obtained; the animals intended for sanitary slaughter are marked and transported to slaughterhouse under official control.
- DSAVR supervises sanitary slaughter and collects samples, organizes the compensation process, registers data on PISA.Net and organizes the following CITT to be carried out in the positive/infected holding.

DSAVR also carries out epidemiological investigations involving the farmers and the OPP veterinarians in the identification of risk factors and of the measures to limit transmission.

Farmers have the responsibility to provide access and the means to implement measures on animals, to comply with the rules on identification and movement of animals (including pre-movement tests), to allow the loading and transport for slaughter on health grounds and to comply with the movement restrictions and the depopulation periods imposed following total slaughter. They have the right to compensation for slaughter on health grounds provided they assume their responsibilities pursuant to the laws that apply. Their active involvement is provided by OPP veterinarians which have an important role in education and transmission of information on good practices and legal obligations to farmers Signed compromise with farmers is assumed following partial or total slaughter of for the compliance of movement restrictions and depopulation imposed periods. Compensation for slaughter on health grounds is paid provided that responsibilities pursuant to the laws that apply are assumed. Whenever infection is diagnosed, the work of official veterinarians imposing restrictions and controlling the improvement of sanitary status of holdings require a direct involvement of farmers in the programme In the Autonomous Region of Azores, the authority responsible for coordinating and monitoring the

## Standard requirements for the submission of programme for eradication, control and monitoring

Tuberculosis Eradication Programme is the Regional Directorate of Agriculture, via the Directorate for Veterinary Services.

The implementation of measures is coordinated on each island via a veterinarian who is a Head of Division or Head of the Veterinary Service Sector of the Agricultural Development Service of the island, who may request cooperation from veterinarians from other bodies. The measures under the plan are implemented by technicians from the Agricultural Development Services of the different islands, and in the island of São Miguel and Pico, by the Agricultural Association of São Miguel, Young Farmers Agricultural Association of S. Miguel and Agricultural Association of Pico Island, through an agreement signed between those entities and the regional veterinary authority.

The Regional Veterinary Laboratory of the Azores carries out gamma-interferon testing for laboratory diagnosis. The Regional Laboratory also carries out histopathological examination of every single sample.

Bacteriological examination alone is carried out in the National Agrarian and Veterinarian Research Institute (INIAV).

In the Autonomous Region of Madeira the authority responsible for coordinating and monitoring the tuberculosis programme is the Regional Directorate of Agriculture (DRA), via Directorate for Food and Veterinary Services (DSAV), unit from DRA.

### 4.3 Description and demarcation of the geographical and administrative areas in which the programme is to be implemented

*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.*

*(max. 32000 chars) :*

The eradication programme will be implemented on the entire territory of mainland Portugal with the exception of the Algarve, which obtained officially tuberculosis-free status in 2012.

The area covered by the Directorate for Regional Food and Veterinary Services of the Algarve (DSAVRALG), corresponding to the geographical area of the district of Faro is therefore excluded.

The regions covered by the programme are identified in the attached map (Annex 2) as:

- Directorate for Food and Veterinary Services of the Region of Norte (DSAVRN),
- Directorate for Food and Veterinary Services of the Region of Centro (DSAVRC),
- Directorate for Food and Veterinary Services of the Region of Lisboa e Vale do Tejo (DSAVRLVT),
- Directorate for Food and Veterinary Services of the Region of Alentejo (DSAVRALT).

The plan will be implemented on all the islands of the Azores archipelago - Santa Maria, São Miguel, Terceira, Graciosa, São Jorge, Pico, Faial, Flores and Corvo.

The plan will be implemented on the 2 islands of Madeira archipelago - Madeira and Porto Santo.

### 4.4 Description of the measures of the programme

*A comprehensive description needs to be provided of all measures and detailed reference must be made to Union legislation. The national legislation in which the measures are laid down is mentioned.*

# Standard requirements for the submission of programme for eradication, control and monitoring

## 4.4.1 Notification of the disease

(max. 32000 chars) :

Bovine TB is a notifiable disease since 1953 under the Decree-Law No 39 209 of 14 May 1953. This obligation is reinforced by Decree Law No 272/2000 of 8 November 2000.

The notification procedure is initiated whenever:

- suspect lesions are detected in routine examination in the slaughterhouse, whereupon the corresponding entry is made on the DGAV's health inspection database (SIPACE), which notifies the DSAVRs on a specific form.

- positive results in diagnosis on live animals, whereupon the responsible veterinarian (OPP) sends a report to the veterinary services (DSAVRs) via PISA.Net.

Health classification of a herd is suspended following notification of a positive result and appropriate measures are carried out.

SNIRA database is also updated when requirements for maintaining a herd's disease-free status are not met, allowing the stop of movements between holdings.

## 4.4.2 Target animals and animal population

(max. 32000 chars) :

The programme covers all females and males over 6 weeks of age in accordance with Annex A, I, 2(C) of Directive 64/432/EEC, both in the Continent and Madeira, with the exception of males in isolated officially free herds intended for slaughter in areas with 1% or less herd prevalence.

On holdings that are officially tuberculosis free the age of the bovines to be checked is determined depending on the epidemiological indicators of the region and the respective risk assessment (Annex 1).

On holdings that are not disease-free all bovines over 6 weeks old are checked.

The Azores programme covers 25% of all holdings and 25% of all animals over 24 months of age. Please see point 4.4.6.

## 4.4.3 Identification of animals and registration of holdings including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars) :

Decree-Law No 142/2006 of 27 July 2006 and its amendments, regulates the National Animal Information and Registration System (Sistema Nacional de Informação e Registo Animal - SNIRA) and lays down measures for the identification, registration and movement of bovine animals, with specific regard to the accompanying documentation required. SNIRA for bovine consists of three essential elements, namely:

- Ear tags for individual identification of animals;
- Individual passport mandatory only for animals intended for intra-Community trade and animals exported to third countries;
- Updated registration of movements per holding extracted from the database;
- National computerised database (SNIRA) with holding registration and each animal and its movement, which is the base of updated farms registration.

## Standard requirements for the submission of programme for eradication, control and monitoring

All bovine holdings are identified with a unique holding code (ME), attributed by DGAV and are recorded in SNIRA database. This thus contains all cattle producer and their premises and animals.

The bovine passport (PB) is issued only for bovine animals intended for intra-Community trade and animals exported for third countries. The PB has the registration of the identity of the animal, the current holding, the holdings where the cattle went by and the health status of the herd.

All bovines are identified with a unique number applied to the animal in two ear tags, one in each ear. Ear tags are attributed to the holdings, officially authorized, and the respective keeper is responsible for this identification and as well to communicate to SNIRA database the birth of any animal within 7 days from the date of identification. Identification is mandatory and can not exceed 20 days from the date of birth of the animal.

### 4.4.4 Qualifications of animals and herds including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

(max. 32000 chars):

All the holdings covered by the programme have a health status in accordance with Directive 64/432/EEC of 26 June and Decree-Law No 272/2000 of 8 November 2000; Directive 2008/73/CE and Decree-Law No 79/2011 of 20 June.

The dynamic assignment, maintenance and change of health status defined in the program is the following:

- "T3" officially tuberculosis free herds are those that fulfill the program and in which the bovines over six weeks of age introduced undergo with negative result to CITT in the previous 30 days (pre-movement test), according with the criteria set out in the legislation and specific guidelines on the subject "Manual of procedures for health classification".

- The officially free health status (T3) is suspended (T3S) in the following situations:

a) If any CITT reveal positive animal(s).

b) As a result of the detection of suspicious lesions on routine examination at slaughterhouse.

c) If an Epidemiological Inquire (EI) reveals the possibility of infection.

d) When conditions to be considered officially free are not fulfilled by all animals in the holdings.

e) For any other reason considered relevant to the strategy against tuberculosis by the official veterinary services.

- After a positive CITT animals are subjected to sanitary slaughter and sampled for bacteriological or histopathological confirmation. If all the animals over 6 weeks of age test negative in a CITT carried out 42 days after the slaughter of positive animals and the bacteriological and histopathological tests are negative, the suspension is lifted.

- The officially free suspended (T3S) is withdrawn to infected T2.1, when the presence of *Mycobacterium bovis* is confirmed by isolation of the agent or positive histopathological exam.

- Infected herds (T2.1) can become non disease-free (T2) after they test negative in three successive CITT on all bovines more than 6 weeks of age. The first test being carried out 42 days after the slaughter of the last animal reacting positive, a second test 60 days after the first test and one further test 60 days after the second one.

Herds classified as not disease-free, undergoing health measures (T2) reacquire officially disease-free status (T3) if they test negative, in CITT on all bovines over 6 weeks of age, 6 months after of being assigned the status T2. Please see Annex 3.

Fattening herds:

## Standard requirements for the submission of programme for eradication, control and monitoring

EB4T3L4 are classified fattening herds that receive animals from free reproduction herds and free fattening herds with negative pre-movement tests. These herds can send animals to slaughter and to other fattening herds.

E1 are fattening herds that receive animals from free reproduction herds and fattening herds (excluding E2). These herds can only send animals to slaughter or to other fattening herds (excluding EB4T3L4 classified fattening herds).

There are two possibilities for the classification of the holdings from E1 to EB4T3L4:

- two cleaning and disinfection with 15 days interval are done after the premises are totally empty and all the new entering animals undergo pre movement tests,
- or all the animals present in the holding undergo two CITT with 6 months interval with negative results.

The process of classification of E1 herds will be completed in 2019 and then on no animals will be allowed to enter in herds maintaining this classification.

E2 are fattening herds that are controlled by DSAVR. Biossecurity measures are evaluated in order to ensure that there are no contacts with other holdings and receive negative animals from free or non-free herds (with pre-movement negative test - risk assessment test TAR). These herds can exclusively send animals to slaughter.

Conditions to enter E2 fattening herds are explained under 4.4.5.

### *4.4.5 Rules of the movement of animals including detailed reference to relevant Union legislation and its implementation in the Member State for this disease*

*Please detail also the rules existing for transhumance and common grazing areas, if any.*

*(max. 32000 chars) :*

Decree-Law No 142/2006 of 27 July 2006 and its amendments, lays down measures for the monitoring of movements of bovine animals.

When cattle are transferred from one holding to another, or when they are sent for slaughter they must be accompanied of the respective movement document (Declaration of Movements) currently issued from the SNIRA database according to health classification or the health status of holdings involved.

There is a web service between SNIRA and PISA.Net used to validate the movement. The kind of movement authorized, the document that is necessary, who can obtain it and the predictor conditions for each movement, were previously fixed and are part of the informatics system validation. The system is prepared to issue alerts that will help veterinary official services to perform control activities and to confirm the ownership of the animal.

The Declaration of Movement documents can therefore be obtained directly from the online system by the animal owner or at the information collection points located at the SVO or at Agricultural Confederations reception desks.

Despite the emission of the Declaration of Movement ensures the movement's registration on the SNIRA database, the owner of the holding of destination must notify the database of the entrance of the animal within the period of 7 days, and this procedure is mandatory to update the information in the system.

Irregularities to animal movement rules are detected either during visits to the farms or through reports of SNIRA database and all infractions are subjected to administrative offense.

Depending on the health status of the herd, the animal movement options are the following:

- Animals originating from officially free holdings (T3) may circulate from their holding to another with

## Standard requirements for the submission of programme for eradication, control and monitoring

the same health status if the determinations relating to the pre-movement tests are carried out.

- Animals from suspended officially tuberculosis-free holdings (T3S), which are not disease-free and subject to health measures (T2) and from infected not disease-free holdings (T2.1) in quarantine may be moved only as follows:

. movement to immediate slaughter under official control if accompanied by a permit for movement for immediate slaughter issued by DSAVR of origin.

. to a fattening holding E2, duly authorized by the DSAVR of destiny, if such movement is undertaken on the following conditions:

- formal authorization from the DSAVR of origin;

- prior CITT testing with negative results of the animals to be moved, which is designated as a Risk Assessment Test (TAR) and is registered in the bovine passports and on PISA.Net.

Animals older than 6 weeks entering into fattening holdings are submitted to tuberculosis tests.

Due to the favorable epidemiological indicators of the Azores, in this region the pre-movement tests are exempted when the movements are within the island or inter island (with the exception of the island of S. Miguel). However, all animals over 24 months of age, destined to holdings in the mainland or in RAM must have a negative pre-movement test for tuberculosis, carried out within a maximum of 42 days prior to movement.

### 4.4.6 Tests used and sampling and testing schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease (including herd frequency per region, animal coverage in each herd, interpretation rules of the test,...)

*For bovine tuberculosis, please detail how the quality/reliability of the skin-testing is ensured/verified (training and supervision of field veterinarians, recheck of some officially-free herds by the official veterinarians, quality insurance system in force if any, etc. ...)*

*Please detail also how the surveillance of bovine tuberculosis is monitored in slaughter houses (Training of vets, monitoring of the lesions submission rates and positivity rates, link with the field vets in case of positive results, etc. ...)*

(max. 32000 chars) :

#### a) Tests carried out and interpretation of results:

The procedures for carrying out CITT are those laid down in the consolidated version of Directive 64/432/EEC of 26 June 1964, namely in Regulation 1226/2002.

CITT is considered positive when the difference between avian and bovine tuberculin is more than 4 mm. Animals in which the CITT has yielded doubtful results (difference of more 1 mm and less than 4 mm) must undergo another tuberculin test after a 42 days period. Animals not testing negative in the second test are considered positive in CITT.

The OPP records CITT results and the presence or absence of clinical signs on PISA.Net. DSAVR validates the results for the disease (negative or positive) for each animal and validates or suspends the health status of the holding, as applicable, as already explained.

The quality of CITT is considered one of the critical points of the programme. Specific training sessions are being organized for the veterinarians of OPP since 2009 in order to ensure that their performance on CITT was properly updated. In 2016 and 2017, 175 veterinarians had practical training in CITT which is foreseen to continue in 2018 and 2019.

The work of OPP vets is also subjected to field controls carried by official vet services, including the observation/evaluation of CITT at the farms. A specific official evaluation model is used in these controls. About 5% of field veterinarians each year were checked during their routine work. In 2018, this proportion was increased to 10%. This evaluation is also applied to holdings of origin of animals that were detected with lesions in slaughterhouses.

Gamma-interferon is occasionally used as a complementary diagnostic test for accelerating the removal

## Standard requirements for the submission of programme for eradication, control and monitoring

of infection in the herds.

b) General testing scheme:

- In T3S, T2 and T2.1 herds all bovines over 6 weeks of age are subject to CITT.
- In T3 herds the age of animals subject to CITT is as described at point d).

c) Purposes of the application of CITT:

1- Officially tuberculosis-free herds (T3):

- As a routine test for maintenance of health status, the animals to be tested being determined by the rules described in the programme;
- As a pre-movement test, whereupon animals over 6 weeks of age are tested.

2- Suspended officially tuberculosis-free herds (T3S):

- Following slaughter of a positive animal;
- Following a suspect tuberculosis lesion in routine examination in a slaughterhouse;
- As a risk assessment test (TAR) as described at point 4.4.5.

3- Non-disease free herds (T2 and T2.1)

- Following slaughter of a positive animal;
- As a test to recover higher status;
- As a risk assessment test (TAR) as described at point 4.4.5.

4- Non-classified fattening herds (E1) and classified fattening herds (ET3B4L4):

- As testing for classification;
- As a pre-movement test.

d) Regional differences for the application of the surveillance scheme:

For maintenance of the T3 status, prevalence indicators at county level over the two most recent biennial supervisory periods are evaluated as a measure of risk, and the age of the animals to be tested and the frequency of tests is decided as follows considering data available at this moment (see Annex 1 and 7).

1- DSAVR of Alentejo: Testing of all animals over 6 weeks of age (infected herds in the two last years exceed 1%).

2- DSAVR Norte, DSAVR Centro and DSAVR LVT: Testing of all animals over 24 months of age (infected herds in the two last years bellow 0.2%).

However, it was decided to apply the routine testing to animals of 6 weeks of age, for the following specific counties:

DSAVR Norte - Montalegre, Vila Real and Ribeira de Pena;

DSAVR Centro - Castelo Branco, Idanha-a-Nova.

3- Autonomous region of Azores: Testing will be applied simultaneous to 25% of holding with bovines over 24 months of age and to 25.0% of all animals of that age in all islands (animals between 6 weeks and 24 months of age will be subject to epidemiological surveillance).

4- Autonomous region of Madeira: In 2018 RAM began the classification of herds, with all bovines older than 6 weeks tested twice. In 2019 the already classified herds will be tested once.

e) Diagnosis of tuberculosis at meat inspection

Meat inspection of bovine animals is performed in approved slaughterhouses by official veterinarians who may be assisted by official auxiliaries.

The official veterinarians and official auxiliaries receive regular training on meat inspection procedures. Furthermore there are several documents that adequately describe what procedures to perform during the post-mortem inspection of animals.

The official veterinarians and official auxiliaries are supervised regularly according to PAIS (Meat Inspection Supervision Plan) to assess compliance with the established procedures.

In slaughterhouses the official veterinarian is always present during the ante mortem and post mortem inspection.

During the reception of live animals, the official veterinarians check the identification papers and

## Standard requirements for the submission of programme for eradication, control and monitoring

movement documents of cattle. The animals from TB not free holdings are identified and inspected taking that information into consideration and samples are collected accordingly.

After a sanitary slaughter of positive TB animals, the official veterinarian fills out a form which describes the lesions found in the animals slaughtered and samples taken for analysis.

The experience of years dealing with tuberculosis lesions gives Portuguese meat inspector veterinarians enough expertise in identifying suspected tuberculosis lesion, which contributes to the high rate of TB positivity in the collection of suspected lesions to be sent to the laboratory. Furthermore some of the parasitic and other diseases included in the differential diagnosis of tuberculosis have been decreasing over time with the general improvement of the sanitary condition and biosecurity of herds.

Whenever there is a suspicion of tuberculosis in animals during regular slaughter, the official veterinarian makes a notification of suspected Notifiable Disease (DDO), which is sent to the central and regional services. Data is introduced in SIPACE (the national database for the results of official controls on establishments).

Following a DDO the Regional Services trace back the animal in order to determine the probable herds where infection has occurred and investigation of these herds includes CIIT with the presence of official vets.

### 4.4.7 Vaccines used and vaccination schemes including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

*Explain also how the vaccination coverage is monitored by the official authorities*

*(max. 32000 chars) :*

All desensitizing, immunoprophylactic and therapeutic treatment is expressly prohibited.

### 4.4.8 Information and assessment on bio-security measures management and infrastructure in place in the holdings involved.

*Please detail also the situation as regard to this disease in the wildlife, and explain the surveillance and control measures in wildlife if any, and the coordination between the stakeholders involved (hunters, farmers, official service labs, vets, etc ...)*

*(max. 32000 chars) :*

During quarantine notice (standstill) and epidemiological investigations, holders are faced with a range of questions related to biosecurity measures and management which have also informative and educational purposes. Subjects as use of pastures, risk on sharing equipment, and the scope for direct or indirect contact with other herds are referred.

The notification to the owner related to quarantine notice contains instructions related to cleaning and disinfection of the stables and outbuildings, areas and loading points of the materials or substances from animals or been in contact with them, as well as containers, utensils and other objects used by animals. There are also at the web site "codes on good practices on farms" describing biosecurity measures and management, produced by agricultural associations in cooperation with the DGAV.

The over-population of large game animals (deer and wild boar) in some areas of the mainland is identified as one of the critical points in the control of TB, acting these animals as reservoirs for domestic cattle. There is space for improvement in the articulation with the Forestry Authority in order to deal

## Standard requirements for the submission of programme for eradication, control and monitoring

with the over population of large game animals (deer and wild boar).

There is also a specific control plan in large game animals considering the transmission of TB agent. The Notice (Edital), in force since April 2011, defines the area of epidemiological risk for tuberculosis for the largest game animals, according to the distribution of these animals in the country. This area includes several counties of DSAVR Centro and DSAVR Alentejo.

The main aspects of this Notice are:

- In all big game hunting activities a veterinarian should be present;
- In all hunted animals an initial examination must be conducted, made by the veterinarian, to ensure:
- meat safety, protection of hunters and other people involved; specific conditions were publicized through a good practice manual
- correct and safe disposal of the by-products of hunting;
- collection of tuberculosis suspected lesions for laboratory diagnosis (histopathological and bacteriological examination).

All game initiatives should be previously reported to regional veterinary services, indicating the veterinarian in charge of all the procedures involved (initial exam, sample collection, ensure correct disposal of by-products, final reports on each game activity).

Specific training courses were carried out in order to prepare veterinarians for the inspection tasks.

Furthermore in the defined risk area cattle owners are advised to reinforce biosecurity measures in order to keep their cattle separated from game animals developing several strategies in order to ensure that feeding and watering places are not used by both cattle and game animals. Some municipalities and hunters associations took an important role in promoting information and debate on the implementation of the safeguard measures and improvement of field structures to facilitate the initial exam.

Results obtained in the last 5 years, in 481 hunting acts, indicate that in 33% of the hunting acts, animals with suspected lesions were found and 19% were confirmed as positive. This represents 4% of positive results in hunted deer (n=14,905) and 5% of positive results in hunted wild boars (n=11,530), with differences between regions. With the exception of tuberculosis in deer in the region of Alentejo, which revealed a slight increase over the 5 years, trends are stable.

A new sample-base sanitary surveillance programme in hunted wild boars and cervids started in 2017-2018 in non-risk areas. From 300 hunted wildboars 3 had suspected lesions with negative results to histology and bacteriology.

### 4.4.9 Measures in case of a positive result including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

*A description is provided of the measures as regards positive animals and detailed reference to the Union legislation provisions (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, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter. A definition of a suspicion and of a confirmation should be provided, with detailed measures implemented in both situation and how the herd is requalified as free after a positive result. Detailed information should also be provided as regard the epidemiological investigations done, and the additional laboratory tests foreseen (culture, PCR, IFGamma, etc ...). Please mention if national guidelines are available.*

(max. 32000 chars) :

When animals on an officially tuberculosis-free holding test positive, DSAVR are informed and trigger a set of actions including the suspension of holdings' health classification, the issuing of a quarantine order (sequestro), the marking and preparation for the slaughter and compensation of positive animal(s) (within 15 days) and the conduction of an epidemiological survey.

The main measures are the following:

## Standard requirements for the submission of programme for eradication, control and monitoring

a) Prohibition on moving susceptible animals to and from holdings by imposing quarantine wherever animals with a positive reaction are identified in officially disease-free (T3) herds. This restriction remains in place until the herd has regained its status. Consequently all T3S, T2 and T2.1 herds are under restrictions (sanitary sequestro).

b) Compulsory slaughter (sanitary slaughter) of all animals testing positive under the supervision of the official services. Animals are slaughtered no later than 30 days following official notification of the owner. For 2019, we intend to maintain the objective of having 75% of animals slaughtered no later than 15 days after their owners are officially notified.

The destination of the carcass is determined by the sanitary inspector of the slaughterhouse, depending on the lesions observed.

DSAVRs enter the slaughtered animal's data in PISA.Net and inform the OPPs so that these may assist with the subsequent checks.

c) After animals from an infected holding have been unloaded, the means of transport are cleaned and disinfected with officially approved disinfectants in line with the codes of good practice defined.

d) In order to clarify positive results, samples are always taken from animals subject to sanitary slaughter for the purpose of laboratory (bacteriological) analysis, except where they come from infected herds (T2.1).

e) Payment of compensation for sanitary slaughter of animals.

f) On imposition the quarantine order, the herd owner is instructed to clean and disinfect sheds and annexes, loading areas and places, materials or substances derived from the animals or that have been in contact with them, and the containers, utensils and other objects used by the animals.

In herds confirmed as infected, the owners are instructed to:

- ensure that milk from positive animals may only be used by animals from the same holding after undergoing suitable heat treatment, in accordance with Regulation (EC) No 853/2004 of 29 April 2004;
- ensure that milk from negative animals is prevented from leaving the holding, except where it has undergone suitable heat treatment, in accordance with Regulation (EC) No 853/2004 of 29 April 2004;
- destroy by incineration or burial, after treatment with officially approved disinfectant solution, the straw, bedding and any other materials or substances that have been in contact with infected animals;
- prevent the use, without appropriate treatment, of manure from infected sheds or any other quarters used by the animals.

A system is established for the verification of cleaning and disinfection by OPP or the official veterinarian, after the slaughter of positive animals or after total slaughter, prior to reintroduction of animals.

g) An epidemiological investigation is carried out by the local veterinary services, if it has not been performed, wherever the presence of *M. bovis* is confirmed through isolation thereof in a bacteriological examination. The programme's objective is that this survey be carried out within 15 days of the result being made available. The Epidemiological Enquiry (IE) requires the characterization of the holding, the investigation of possible sources of infection including introduction of animals, contacts at pasture and possible contacts with wildlife. It also investigates all herds that have contacts with the herd in question. There are procedures established for the IE carried (mod 758/DGAV). The IE requires the characterization of the holding, the investigation of possible sources of infection including introduction of animals, contacts at pasture and possible contacts with wildlife. It also investigates all herds that have contacts with the herd in question.

Non-compliances identified are subjected to penalties and contact herds have to be controlled.

h) In addition to these measures, and following the epidemiological surveys carried out by the DSAVR, where deemed necessary in the light of risk assessment, epidemiological related holdings are investigated and recommendations made on the maintenance and stepping up of biosafety measures and, if necessary, CITT testing.

i) Adoption of reinforced measures in holdings where the bovine-wildlife interface poses a risk, by development of intervention plans targeted at reducing the probability of contact and transmission of

## Standard requirements for the submission of programme for eradication, control and monitoring

tuberculosis.

j) ) Adoption of reinforced measures in risk areas, where *M. bovis* was confirmed in wildlife by increasing the surveillance of bovine holdings to twice a year.

k) The follow up of positive herds starts 42 days following sanitary slaughter - all cattle in the herd over 6 weeks of age undergo the IDT. The result of this check and the result of the bacteriological examinations of the samples collected during the slaughter on health grounds determine the implementation and frequency of subsequent checks, as well as whether the status is maintained or altered.

l) The use of total slaughter/depopulation of outbreaks, when necessary, as it is laid down in Decree- Law No 79/2011 of 20 June. DGAV may determine this measure based on the risk assessment of specific situations, according to the following criteria:

- When there is no improvement in the health qualification of an infected herd or an epidemiological unit, in the last 12 months.

- When *M. bovis* has been isolated.

- When, in certain epidemiological conditions of a geographical area, it is the most appropriate measure to improve the situation.

- When it is not possible to implement any other animal health measure.

The proposal for depopulation, which is a sanitary decision performed by official veterinary regional services (DSAVR), is always followed with two documents:

- The epidemiological inquiry;

- An expressed commitment of the owner regarding its compliance with the "waiting period before restocking" and with the expressed conditions for restocking.

In the event of slaughter of the entire herd and the corresponding depopulation, holders are obliged to undertake the disinfection of the holding (initial and final) and the equipment, first removing all organic material and then washing the premises in which animals were housed. These procedures are supervised by the OPPs and validated by the DSAVRs and the holder signs a commitment to comply with them as a condition for repopulation.

The expenditure relating to total slaughter includes: slaughter, average value per km from the holding to the slaughterhouse(s), the cost of the disposal of carcasses and the cleaning and disinfection of vehicles.

### 4.4.10 Compensation scheme for owners of slaughtered and killed animals

(max. 32000 chars) :

The respective compensation is paid to the owner pursuant to Order No 205/2000 of 5 April and Joint Order No 530/2000 of 16 May 2000.

The compensation payable is calculated as the sum of several indices according to how applicable these are to each case - see Annex 4.

In cases of slaughter of an entire herd the compensation paid related not only to positive animals but to all exposed and cohabiting animals, too.

In Azores the compensation for the slaughter of animals is awarded in accordance with the provisions of regional legislation of the Regional Secretariat of Agriculture and Forestry of the Regional Government, published annually. The same applies to Madeira.

# Standard requirements for the submission of programme for eradication, control and monitoring

## 4.4.11 Control on the implementation of the programme and reporting including detailed reference to relevant Union legislation and its implementation in the Member State for this disease

Please indicate also when the last FVO audit has taken place and provide a table listing the recommendations and the actions taken by the national authorities to this regard.

Please mention if a Task Force subgroup visit has taken place and the state of play as regards the implementation of the recommendations suggested if any.

(max. 32000 chars):

Globally the activities of the programme are controlled as following:

- Regular controls: data on field work is entered by OPP on a national data base (PISA.net) – DSAVR control the compliance with annual checking and suspend free status of holdings and advise OPP when necessary. The access profile and circuits of information are well defined allowing regular monitoring and standardization of information.
- Positive/Infected herd's controls: repeated checking of positive/infected herds are monitored in what regards the compliance of intervals between CITT after slaughter of positive animals. This is carried out in a continuous way, along the programme, whenever a status is suspended. Furthermore movements control is carried out through SNIRA and observation of animals during the re-checks.
- Slaughter of positive animals: sanitary slaughter are directly organized by the official vet service which personally mark the animals and organize the schedule of transport to abattoir.
- General movement control: the electronic database issue movement permits in accordance with the updated sanitary classification of holdings and presence of valid pre-movement test. Also ID checks are regularly performed in 3% of holdings comparing existing animals with SNIRA registries.
- Compliance with movement restrictions: these are assured through the blocking of permissions for issuing of movement permits in the electronic data base.
- The quality of execution of CITT: There is a specific official control, at regional level, on the execution of CITT by private veterinarians (10%). This control is done by official vets on the field, follows a specific checklist, and evaluates whether procedures are correctly followed. A specific report is issued with recommendations if necessary.
- Controls of cleaning and disinfection: these controls are routinely applied before restocking in case of total slaughter and following partial slaughter in infected farms. Specific recommendations are issued by the official veterinarians and OPP veterinarians make the verification of compliance with these requests. Lifting of restrictions is conditioned to this control of cleaning and disinfection. In Azores, instructions in this issue have been given by the Region Competent Authority to the veterinary services involved in the programme.

Non-compliances are subject to penalties.

In Azores the direction of Veterinary Services prepares quarterly technical reports of activities, which contains data on the Program Health of the Region, informing the various islands.

Half-yearly meetings are held with all Agrarian Development Services Island and submission of the report to the National Veterinary Authority simultaneously with the semi-annual and annual technical report.

In response to last FVO audit, actions taken are the following:

- Change of procedures to include in the annual survey the testing of males for fattening, unless the holding is a confined epidemiological unit;
- Implementation of the classification procedures of fattening herds (meetings with the sector, development of the database for the movement control, etc.) which will be concluded in 2019;
- Implementation of the cleaning and disinfection procedure;
- Reinforcement of epidemiological identification of sources of infection and traceback;

# Standard requirements for the submission of programme for eradication, control and monitoring

- Training of field veterinarians.

## 5. *Benefits of the programme*

*A description is provided of the benefits of the programme on the economical and animal and public health points of view.  
Describe*

- progress expected compared to the situation of the disease in the previous years, in line with the objectives and expected results
- cost efficiency of the programme including management costs

*(max. 32000 chars):*

Benefits and costs reduction of several natures arrive from the success of the programme. Benefits include the reduction barriers to free trade and the elimination of an important zoonotic agent. The increase of areas of officially tuberculosis-free status encourages livestock production, permits conservation of genetic stock, provides grounds for fixing populations and draws on the pooling of efforts for the common good with socio-economic benefits at the level of the different regions and of the country.

The increase in the number of officially disease-free herds reduces the costs of successive visits to herds, the number of tests in animals, the analyses to be carried out on slaughtered animals, the rejections at slaughterhouses and losses arising from the restriction of movement on health grounds.

These benefits and cost reduction make the investment in a programme like this one extremely positive. The amounts forecast at point 8 were based on the prices in force in 2018, which may change in 2019. The possibility to establish our territories as officially free is advantageous for the overall situation of the country, regarding this disease.

# Standard requirements for the submission of programme for eradication, control and monitoring

## 7. Targets

The blocks 7.1.1, 7.1.2.1, 7.1.2.2, 7.2, 7.3.1 and 7.3.2 are repeated multiple times in case of first year submission of multiple program.

### 7.1 Targets related to testing (one table for each year of implementation)

#### 7.1.1 Targets on diagnostic tests for year : **2019**

Region	Type of the test	Target population	Type of sample	Objective	Number of planned tests	
DSAVR N	tuberculin test	Bovines	skin test	Eradication	243 350	<b>X</b>
DSAVR N	bacteriological test	Bovines	organs	confirmation of suspected cases	41	<b>X</b>
DSAVR N	PCR	Bovines	organs	confirmation of suspected cases	41	<b>X</b>
DSAVR C	tuberculin test	Bovines	skin test	Eradication	145 800	<b>X</b>
DSAVR C	bacteriological test	Bovines	organs	confirmation of suspected cases	48	<b>X</b>
DSAVR C	gamma-interferon test	Bovines	blood	Complementary test	25	<b>X</b>
DSAVR C	PCR	Bovines	organs	confirmation of suspected cases	48	<b>X</b>
DSAVR LVT	tuberculin test	Bovines	skin test	Eradication	114 300	<b>X</b>
DSAVR LVT	bacteriological test	Bovines	organs	confirmation of suspected cases	9	<b>X</b>
DSAVR LVT	PCR	Bovines	organs	confirmation of suspected cases	9	<b>X</b>
DSAVR ALT	tuberculin test	Bovines	skin test	Eradication	775 000	<b>X</b>
DSAVR ALT	bacteriological test	Bovines	organs	confirmation of suspected cases	153	<b>X</b>

## Standard requirements for the submission of programme for eradication, control and monitoring

DSAVR ALT	gamma-interferon test	Bovines	blood	Complementary test	25	X
DSAVR ALT	PCR	Bovines	organs	confirmation of suspected cases	153	X
Açores	tuberculin test	Bovines	skin test	Eradication	50 000	X
Açores	bacteriological test	Bovines	organs	confirmation of suspected cases	4	X
Açores	PCR	Bovines	organs	confirmation of suspected cases	4	X
Açores	gamma-interferon test	Bovines	blood	Complementary test	30	X
Madeira	tuberculin test	Bovines	skin test	Eradication	6 200	X
Madeira	bacteriological test	Bovines	organs	confirmation of suspected cases	5	X
Madeira	PCR	Bovines	organs	confirmation of suspected cases	5	X
Portugal	tuberculin test (only purchase of tuberculin)	Bovines	Tuberculine	Eradication	1 334 650	X
<b>Total</b>					2 669 900	
<b>Add a new row</b>						

	Total number of tests
Total number of tests	2 669 900
tuberculin test	1 334 650
tuberculin test (only purchase of tuberculin)	1 334 650
gamma-interferon test	80
bacteriological test	260
PCR	260

# Standard requirements for the submission of programme for eradication, control and monitoring

## 7.1.2 Targets on testing herds and animals

### 7.1.2.1 Targets on the testing of herds for year : 2019

Region	Animal species	Total number of herds	Total number of herds under the programme	Number of herds expected to be checked	Number of expected positive herds	Number of expected new positive herds	Number of herds expected to be depopulated	% positive herds expected to be depopulated	Target indicators			
									Expected % herd coverage	% positive herds Expected period herd prevalence	% new positive herds Expected herd incidence	
DSAVR N	Bovines	16 300	16 300	13 000	10	8	2	20,000	79,755	0,077	0,062	X
DSAVR C	Bovines	6 500	6 500	4 800	8	3	0	0,000	73,846	0,167	0,063	X
DSAVR LVT	Bovines	2 000	2 000	1 100	2	2	1	50,000	55,000	0,182	0,182	X
DSAVR ALT	Bovines	4 600	46 000	4 300	38	28	2	5,263	9,348	0,884	0,651	X
Açores	Bovines	6 559	6 559	1 421	1	1	0	0,000	21,665	0,070	0,070	X
Madeira	Bovines	770	770	770	2	2	0	0,000	100,000	0,260	0,260	X
<b>Total</b>		36 729	78 129	25 391	61	44	5	8,197	32,499	0,240	0,173	
									<b>Add a new row</b>			

## Standard requirements for the submission of programme for eradication, control and monitoring

### 7.1.2.2 Targets on the testing of animals for year : 2019

Region	Species	Total number of animals	Number of animals under the programme	Number of animals expected to be tested	Number of animals to be tested individually	Number of expected positive animals	Slaughtering		Target indicators		
							Number of animals with positive result expected to be slaughtered or culled	Total number of animals expected to be slaughtered	Expected % coverage at animal level	% positive animals (Expected animal prevalence)	
DSAVR N	Bovine	304 700	304 700	192 000	192 000	50	50	90	63,013	0,026	X
DSAVR C	Bovine	159 500	159 500	114 850	114 850	64	64	65	72,006	0,056	X
DSAVR LVT	Bovine	183 700	183 700	90 000	90 000	12	12	115	48,993	0,013	X
DSAVR ALT	Bovine	704 650	704 650	602 500	602 500	228	228	540	85,503	0,038	X
Açores	Bovine	275 015	275 015	41 409	41 409	1	1	2	15,057	0,002	X
Madeira	Bovine	3 940	3 940	3 940	3 940	1	1	2	100,000	0,025	X
<b>Total</b>		1 631 505	1 631 505	1 044 699	1 044 699	356	356	814	64,033	0,034	
								<b>Add a new row</b>			
Total number of animals expected to be slaughtered or culled : BOVINES								814			
Total number of animals expected to be slaughtered or culled : BUFFALO								0			

### 7.2 Targets on qualification of herds and animals

## Standard requirements for the submission of programme for eradication, control and monitoring

### 7.2 *Targets on qualification of herds and animals for year : 2019*

		Targets on the status of herds and animals under the programme																
		Total number of herds and animals under the programme		Expected unknown		Expected not free or not free from disease		Last check positive		Last check negative		Expected free or officially free from disease status suspended		Expected free from disease		Expected officially free from disease		
Region	Animal species	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	
DSAVR N	Bovines	16 300	304 700	0	0	0	0	10	206	14	284	0	0	16 276	304 210			X
DSAVR C	Bovines	6 500	159 500	0	0	2	59	6	178	19	557	0	0	6 473	158 706			X
DSAVR LVT	Bovines	2 000	183 700	0	0	0	0	2	197	15	1 497	0	0	1 983	182 006			X
DSAVR ALT	Bovines	4 600	704 650	0	0	3	459	35	5 357	28	4 285	0	0	4 534	694 549			X
Açores	Bovines	6 559	275 015	0	0	0	0	0	0	1	57	0	0	6 558	274 958			X
Madeira	Bovines	770	3 940	0	0	0	0	0	0	1	5	0	0	769	3 935			X
<b>Total</b>		36 729	1 631 505	0	0	5	518	53	5 938	78	6 685	0	0	36 593	1 618 364			
												<b>Add a new row</b>						

### 7.3 *Targets on vaccination or treatment*

## Standard requirements for the submission of programme for eradication, control and monitoring

### 7.3.2 *Targets on vaccination or treatment of wildlife for year :* **2019**

		Targets on vaccination or treatment programme			
Region	Square km	Number of doses of vaccine or treatments expected to be administered in the campaign	Expected number of campaigns	Total number of doses of vaccine or treatment expected to be administered	
Portugal	0	0	0	0	<b>X</b>
<b>Total</b>				0	
			<b>Add a new row</b>		

# Standard requirements for the submission of programme for eradication, control and monitoring

## Attachments

### IMPORTANT :

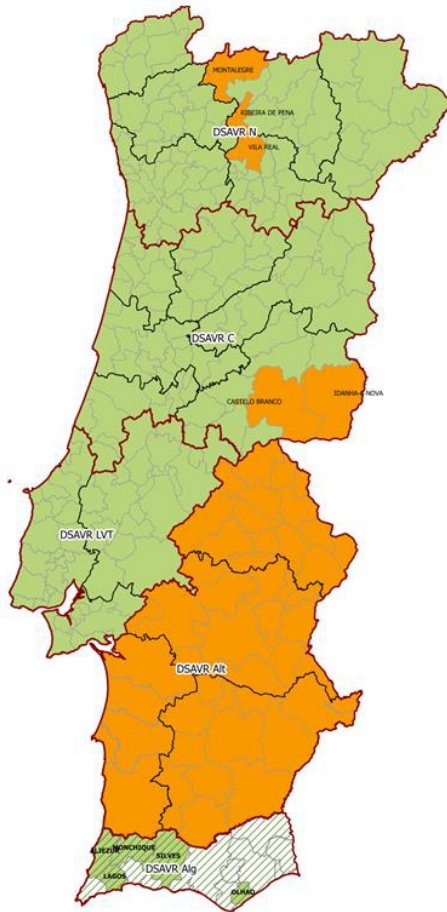
- 1) The more files you attach, the longer it takes to upload them .
- 2) This attachment files should have one of the format listed here : [jpg](#), [jpeg](#), [tiff](#), [tif](#), [xls](#), [xlsx](#), [doc](#), [docx](#), [ppt](#), [pptx](#), [bmp](#), [pna](#), [pdf](#).
- 3) The total file size of the attached files should not exceed 2 500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
- 4) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD** ALL THE ATTACHED FILES. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
- 5) Only use letters from a-z and numbers from 1-10 in the attachment names, otherwise the submission of the data will not work.

## List of all attachments

	Attachment name	File will be saved as (only a-z and 0-9 and -_):	File size
	Anexos TB 2019 set.2018.pdf	AnexosTB2019set2018.pdf	909 kb
		Total size of attachments :	909 kb

## Reproduction holdings

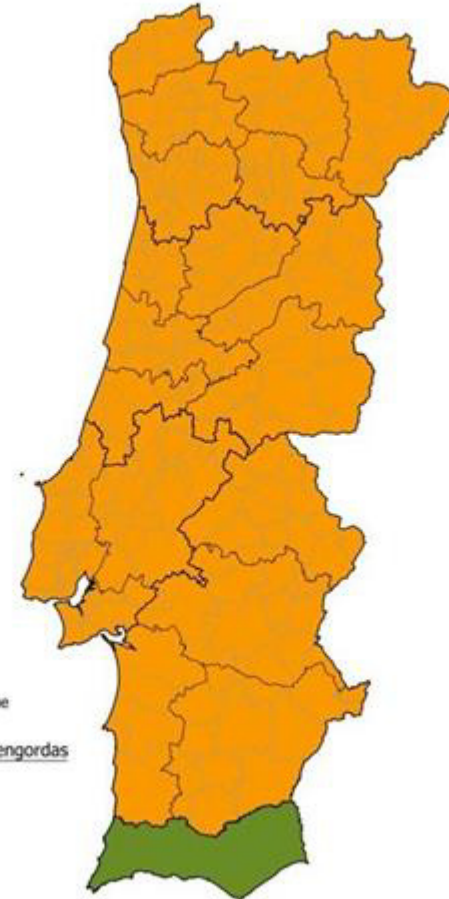
Bovine Tuberculosis  
2019



- Limite DSAVR
- Limite DAV
- Região Oficialmente Indemne
- Idade mínima para IDT em T3
- Todos > 6 semanas
- > 24 meses

## Fattening holdings

BOVINE TUBERCULOSIS  
2019



- Limite DSAVR
- Região Oficialmente Indemne
- Limite DAV
- Idade mínima para IDT em engordas
- 6 semanas

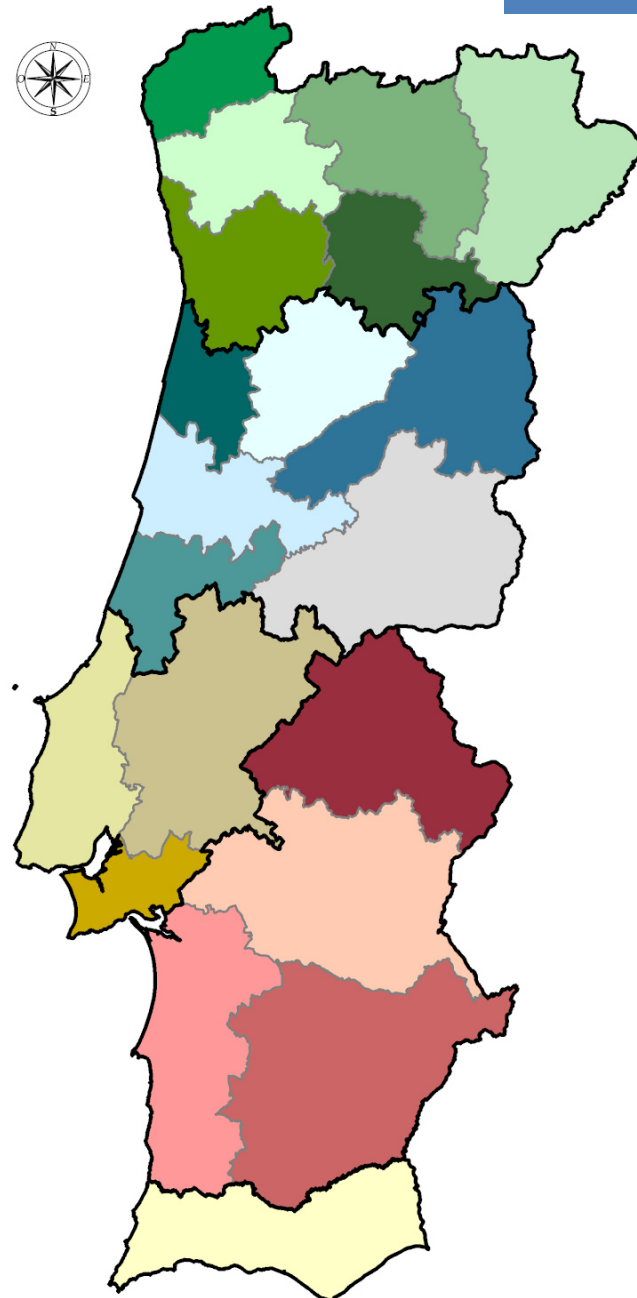
- DSAVR NORTE**
- DAV Bragança
  - DAV Chaves-Mirandela
  - DAV Viana do Castelo
  - DAV Braga
  - DAV Vila Real - Douro Sul
  - DAV Porto

- DSAVR CENTRO**
- DAV Guarda
  - DAV Viseu
  - DAV Aveiro
  - DAV Coimbra
  - DAV Castelo Branco
  - DAV Leiria

- DSAVR LISBOA E VALE DO TEJO**
- DAV Ribatejo
  - DAV Oeste
  - DAV Setúbal

- DSAVR ALENTEJO**
- DAV Alto Alentejo
  - DAV Alentejo Central
  - DAV Baixo Alentejo
  - DAV Alentejo Litoral

- DSAVR ALGARVE**
- (DSAVR Alg)



## CLASSIFICATION OF HOLDINGS

### T3 → T3S

- T3 with any positive IDTC → (positive animals are slaughtered)
- Other reasons / non-compliances

### Requalification to T3

- 1 negative IDTC (all animals >6 weeks)  
**42 days** after slaughter

### T3S → T2.1

- Isolation of *Mycobacterium* →
  - IDTC to all animals(>6 weeks) **42 days** after slaughter of positive animals.
  - If negative results:
    - **60 days** after - new IDTC to all animals (>6 weeks). If negative results
    - **60 days** after - new IDTC to all animals (>6 weeks). If negative results: → **T2**
    - **6 months** after - new IDTC to all animals (>6weeks) → **T3**

## Ponto 4.4.10

**Quadro referente às medidas e termos da legislação relativamente à compensação dos animais abatidos**

**Indemnização por abate sanitário de bovinos**

- a) Valor base (carne) – peso da carcaça, deduzido de 2% de enxugo multiplicado pelo valor da indemnização (1,96€/Kg ).
- b) Aptidão da exploração (valor em €):

Categoria / aptidão	Leite	Carne / misto		
		Autóctone	Exótico	Cruzada
Vaca < 6 anos	698,32	748,20	548,68	299,28
Vaca >6 < 8 anos	349,16	498,80	374,10	224,46
Vaca >8 < 10 anos	-	498,80	274,34	149,64
Bovino de trabalho até 6 anos (**)	-	748,20	-	-
Novilho > 20 meses	149,64	174,52	149,64	149,64
Novilho 12 a 20 meses	174,52	199,52	174,52	174,52
Novilha > 12 < 18 meses	349,16	374,10	299,28	224,46
Novilha gestante (*)	423,98	448,92	374,10	299,28
Novilho 8 a 12 meses	199,52	224,46	199,52	199,52
Novilha 8 a 12 meses	249,40	274,34	224,46	224,46
Vitelo (a) 3 a 8 meses	124,70	149,64	124,70	124,70
Vitelo(a) até 3 meses	99,76	124,70	99,76	99,76

(\*) Certificado pelo médico veterinário inspetor sanitário

(\*\*) Certificado a emitir pela DSVR, onde ateste que a única utilização é a produção de trabalho.

- c) Valor zootécnico – os animais inscritos em livro genealógico ou registo zootécnico recebem ainda uma majoração de 15% sobre o montante a que se refere a alínea b), mediante apresentação de documentação comprovativa emitida pela entidade reconhecida.

**STRATEGY FOR THE USE OF GAMMA-INTERFERON**

As described in point 3, the gamma-interferon is a complementary diagnostic test apply in the following situations:

<b>DECISION TO USE GAMMA-INTERFERON</b>	<b>HERD HEALTH STATUS</b>
When there is a significant number of doubtful results in the IDTC (*)	Infected herds
As an alternative to total slaughter on herds with chronic positivity in the IDTC (*)	Infected herds
(*) <i>Compare intradermotuberculinisation test</i>	

<b>Decrease of the number of new infected herds</b>	←	Age decrease of bovines to be tested from TB officially-free herds located at risk areas		<b>Improvement of better qualification of herds</b>
	←	Training actions in updating the ability of diagnostic in the field in order to improve an effective and timely detection of disease	→	
	←	The use of pre-movement tests in order to ensure maintenance of health status of the herd of destination		
		Compliance with the reinspections in herds infected	→	
		Decision taken for slaughter when an animal is positive reactor to a bovine single intradermal tuberculin test as an alternative of gamma-interferon test	→	
	←	Monitoring and surveillance of game species (such as deer and wild boars) with implementation of proper measures in order to decrease environmental contamination	→	
	←	Surveillance at slaughterhouse that enables to react at the same time in different farms, when lesions are detected		

***Bovine Tuberculosis Eradication  
Programme  
Strategy 2019***

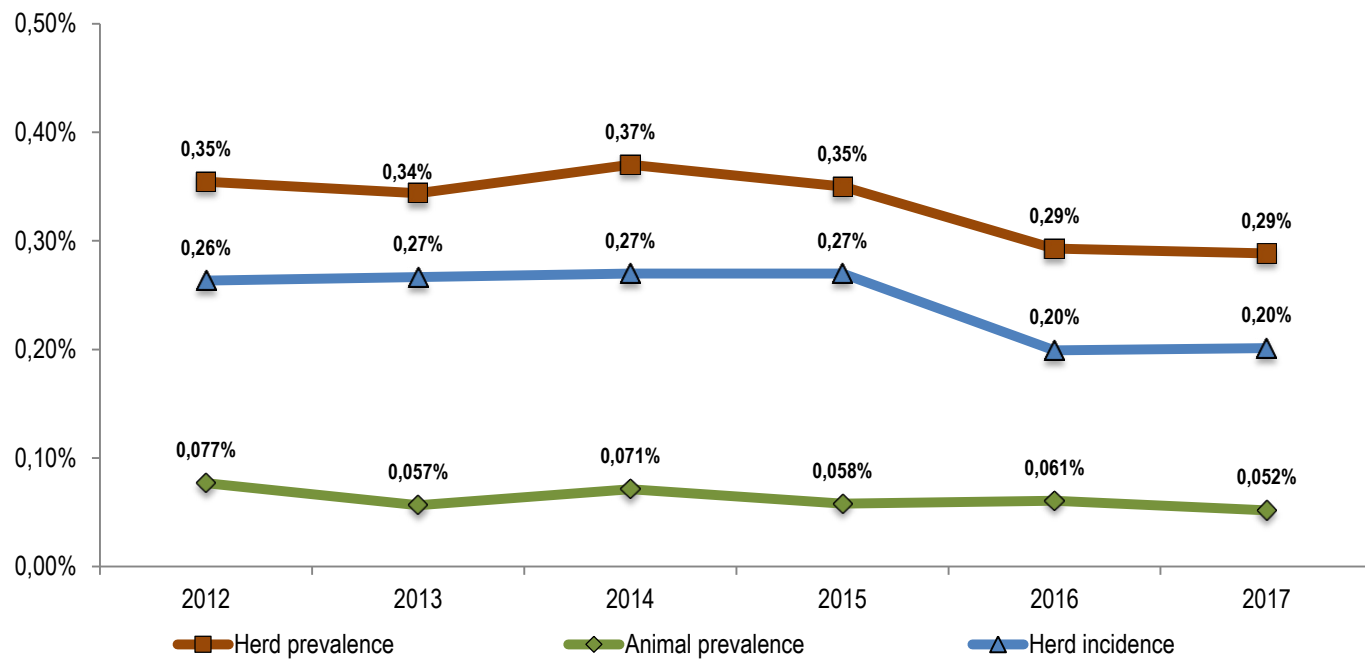
There will be a different approach for the fattening herds that is described in the table below:

Type of holdings	Testing policy for animals
Reproductive Holdings	According to risk assessment in each region made from epidemiological indicators (% of infected farms), recorded in the two most recent biennial supervisory periods
Fattening Holdings	All bovines older than 6 weeks of age

As mentioned in point 3, the system is based on testing all bovines over the age of 6 weeks, however, in officially tuberculosis free herds, according to risk assessment in each region made from epidemiological indicators (% of infected farms), recorded in the two most recent biennial supervisory periods, testing policy is the following:

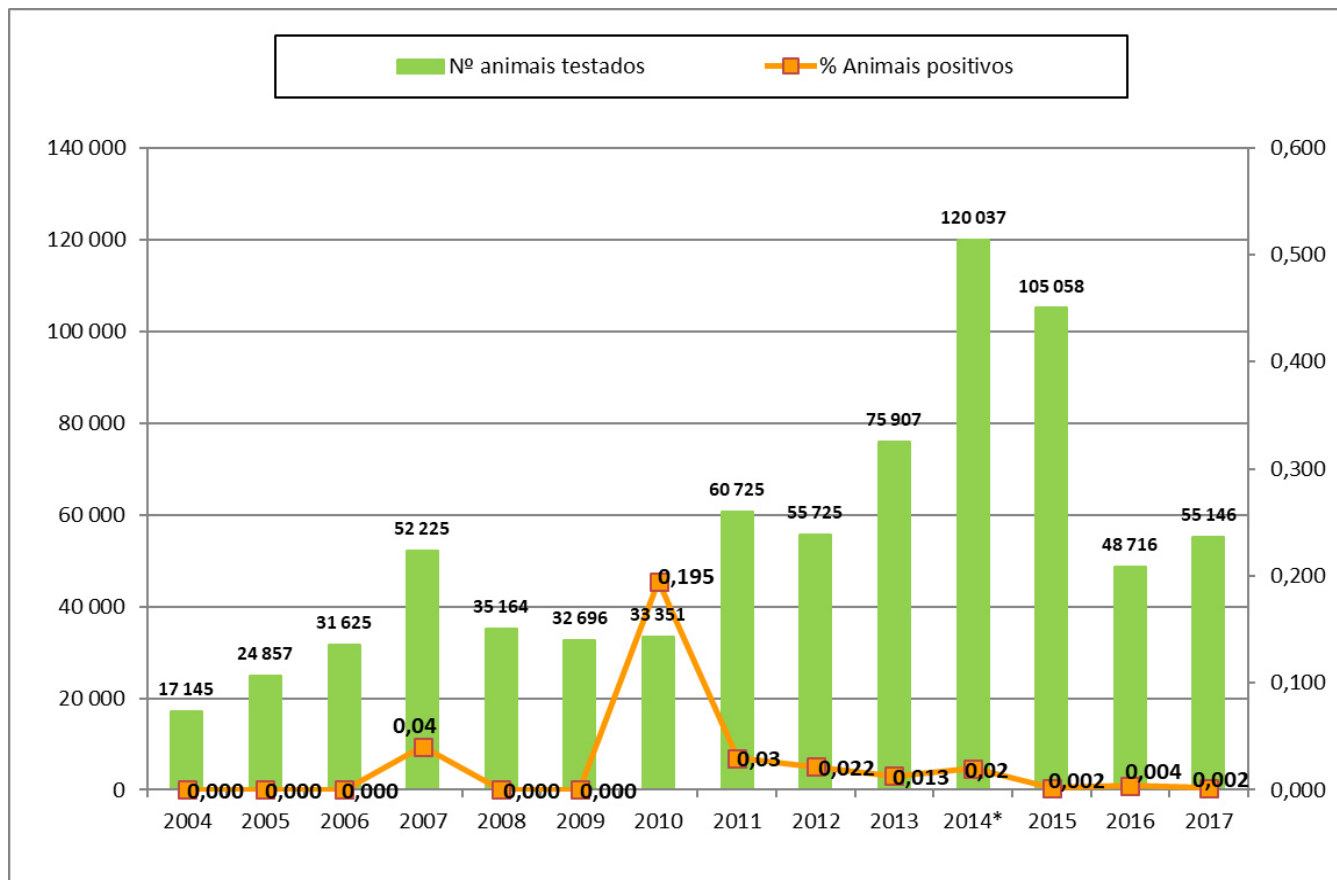
Holdings	% of infected herds at each of the last two years	Animals tested
Reproductive Holdings	< 0,2%	All bovines older than 24 months of age
	> 0,2%	All bovines older than 6 weeks of age

### Bovine tuberculosis Mainland - non officially free region Prevalence and incidence



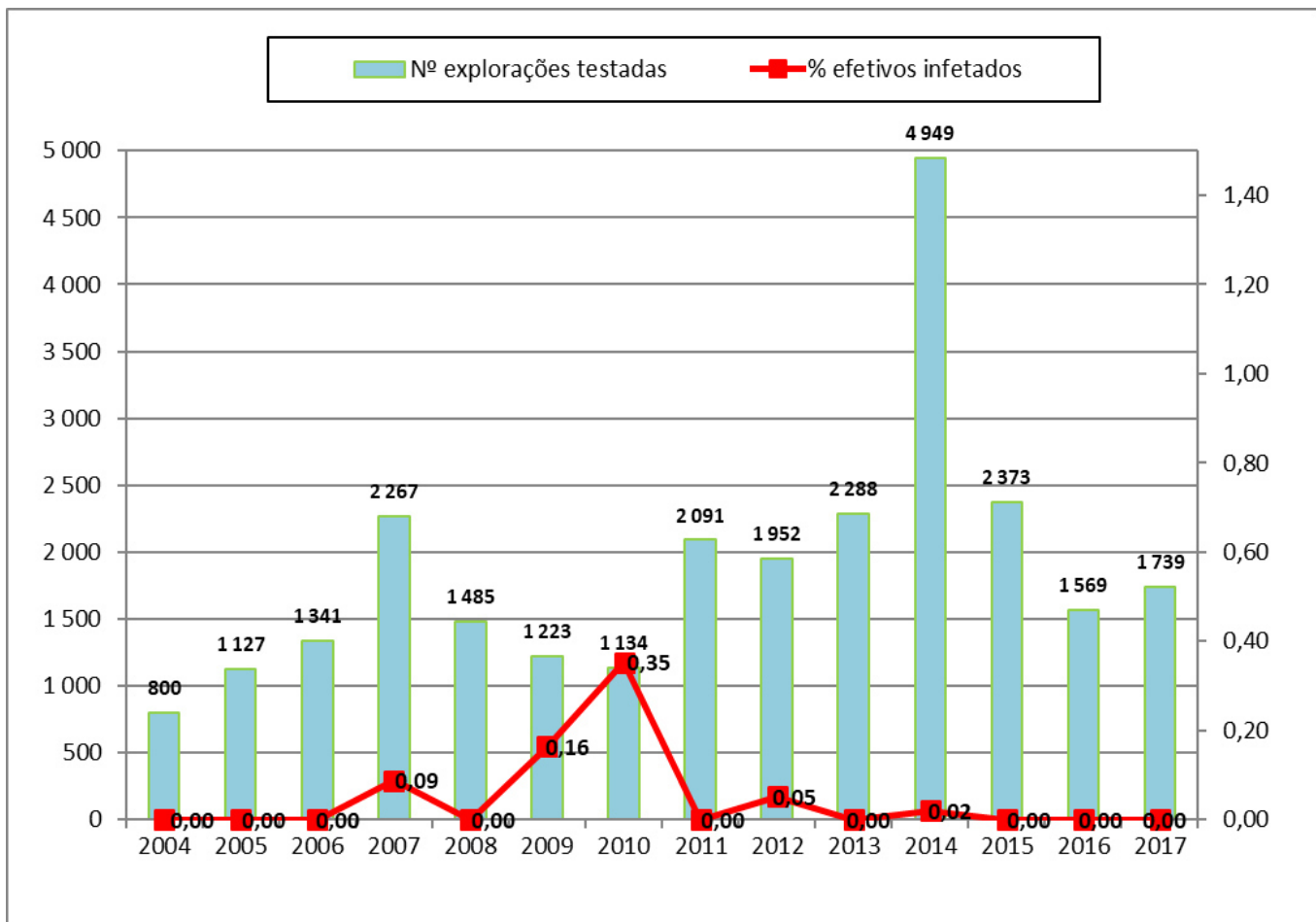
# Açores

## Evolution of bovine tuberculosis tested and infected animals

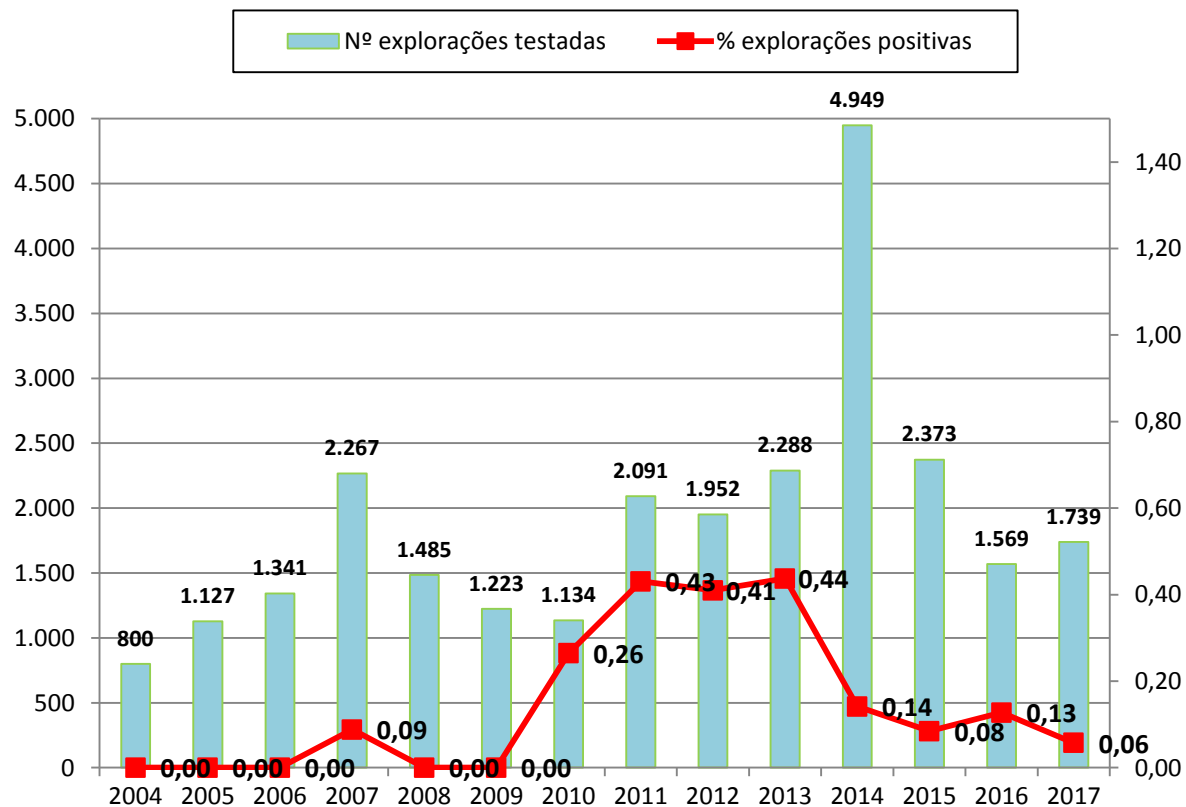


# Açores

## Evolution of bovine tuberculosis tested and infected herds



# Açores



Tuberculose – N.º de EU testadas versus % UE positivas na RAA