

# 2013

## TRAINING PROGRAMME 2013-2015



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## Introduction

The EuFMD training programme aims to assist Member States (MS) to better prepare for Foot-and-Mouth Disease (FMD) emergencies. It will also aim to provide adequate technical support to neighboring countries to improve their FMD status or FMD emergency preparedness.

During the 40<sup>th</sup> General Session of the EuFMD Commission (Rome, 22-24 April 2013) it was agreed that, in order to tailor the training programme to the MS demands, a survey would be carried out among the MS to identify trainings needs and priorities. In the survey MS were asked to provide a ranking of their five most immediate training needs from nine different training options. Thirty-three MS responded to the survey (response rate 89%) and the results are shown in **table 1**.

**Table 1: Ranking of priorities according to the EuFMD Member States**

Course	1st (n)	1st (%)	2nd (n)	2nd (%)	3rd (n)	3rd (%)	4 (n)*	4th (%)*	5 (n)*	5th (%)*	Final Score**
<b>Real Time Training</b>	21	91%	0	0%	4	17%	1	5%	5	23%	124
<b>GEMP</b>	4	17%	8	35%	1	4%	7	32%	4	18%	73
<b>Vaccine as control strategy</b>	4	17%	4	17%	4	17%	5	23%	4	18%	62
<b>Modeling and DST</b>	1	4%	5	22%	5	22%	5	23%	5	23%	55
<b>Simulation</b>	1	4%	4	17%	7	30%	4	18%	4	18%	54
<b>RBS</b>	0	0%	8	35%	5	22%	3	14%	1	5%	54
<b>Socio-economy</b>	0	0%	1	4%	3	13%	5	23%	6	27%	29
<b>Lab</b>	0	0%	3	13%	3	13%	1	5%	2	9%	25
<b>PEPc</b>	2	9%	0	0%	1	4%	1	5%	1	5%	16

\*One country only chose three courses. \*\*Final score: 1<sup>st</sup> option five points, 2<sup>nd</sup> option four points, 3<sup>rd</sup> option three points, 4<sup>th</sup> option two points and 5<sup>th</sup> option one point. GEMP: Good emergency and management practices. DST: Decision support tools. RBS: Risk based surveillance. Lab: Laboratory. PePC: Practical epidemiology for Progressive Control.

## Training menu

The activities against the frame of the 2013-2015 working plan will incorporate the concept of *cascade training*. Each participant will therefore be expected to pass on the newly acquired skills to his/her colleagues and stakeholders. The EuFMD will provide guidance and teaching material to enable trainees to implement workshop or seminars in their own countries.

Considering the budget allocated to components 1.1 and 1.2 of the Strategic Objective 1 (Pillar I) for the next 24 months, the training menu will consist in at least eight Real Time Training (RTT) courses and four courses/workshops. The 2013-2015 training programme will involve training at least 165 participants equally distributed among MS

The training programme will be complemented with regular webinars where EuFMD experts or external consultants will discuss specific FMD related topics with trainees. These webinars will be open to all MS with no limit to the number of participants.

Ten training credits (TC) will be allocated to each MS. The TC could be used according to country specific needs during the next 24 months. The number of credits needed to attend each of the training activities is outlined in the training activity description (below). If MS run out of TC, they could self-fund the participation of extra trainees. The EuFMD training team will regularly provide statements of training provided, training available and credit status.

The format of Real Time Training (RTT) and the modeling course will include e-learning components. The participants will be expected to complete successfully the e-learning induction module **before** attending the workshop. Several weeks after the finalization of the workshop the trainee will be invited to participate in the e-learning follow-up module. After having successfully completed the three components, the participant will receive a certificate of completion.

**Diagram 1: Training modules of RTT and EuFMD modeling and decision support courses**



### EuFMD TRAINING MENU

1. Real time Training plus e-learning components ----- 3 TC
2. Modeling and Decision Support plus e-learning components
  - Vaccination orientated-----2TC
  - Socio-Economic orientated -----2TC
3. FMD vaccination as control strategy (upon specific demand)-----1TC
4. Socio-economic analysis of FMD control strategies (upon specific demand)-----1TC
5. FMD Preparedness and Simulation Exercise support -----2TC
6. Risk Based Surveillance (upon specific demand)-----1TC
7. Laboratory Training on FMD diagnosis (upon specific demand)-----4TC
8. Expert backstopping mission (upon specific demand)-----4TC

All training activities will be supported by regular webinars

### Training Calendar

	2013				2014				2015				Total activities
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
E-learning													
Real Time Training							2				2		8
Course (2TC)												1	2
Workshop (1 TC)												1	2
Webinars					1		1		1		1		9

### Training Description

The EuFMD will carry out a range of training activities intended to improve the readiness for FMD crisis management in MS and European neighborhood. The following training activities will be available during the next 24 months. Some of them will take place only if there is sufficient request from the MS.

## 1. Real Time Training (RTT) in FMD Outbreak Investigation (3 TCs)

**The course is intended for:** *Participants with an interest in improving their FMD clinical recognition skills in the field and their outbreak investigation abilities.*

This training course aims to improve expertise in the immediate investigation and response to FMD outbreaks. The training will take place in countries where FMD is endemic (for instance, Kenya). The areas covered by the course include disease recognition, outbreak investigation lesion ageing, clinical examination and sampling, diagnostic testing, epidemiology and risks factors assessment for local spread.

The five-day course format includes classroom-based teaching, investigation of a real outbreak of FMD in the field focusing on the clinical and epidemiological aspects required if an exotic incursion should occur in a MS. This is followed by a survey of the outbreak area where trainees establish local risk factors for spread of infection in order to establish putative control measures. The course finishes with the rapid production and presentation of a relevant situation report, which is an essential skill for any exotic disease incursion.

E-learning modules for the real time training course to increase the learning impact among trainees will be incorporated into the 2013-2015 training programme.

Trainees will be requested to undertake a three-hour induction e-learning course before starting the five days of field training. The induction course will provide a solid background into the most important aspects of FMD management. Four weeks after the field visit there will be a follow-up e-learning to consolidate the newly acquired skills. The RTT course will be supported by webinars where trainees and trainers can meet in a virtual space to discuss or clarify any aspects of the training experience.

## 2. Modeling and Decision Support Tools for FMD Contingency Planning (2 TCs)

**The course is intended for:** *Participants from countries already engaged in disease modeling or from those countries that are willing to included modeling tools to support their FMD contingency planning.*

The purpose of the course is to introduce the concepts of epidemiologic modeling to the Veterinary Services to assist contingency planning and evaluation of the efficacy of control strategies.

The use of disease spread models and decision support tools can make a valuable contribution to FMD contingency planning and preparedness. This course covers disease spread modeling, its application to contingency planning and the use of decision support tools to inform decision maker. Regional approaches facilitating cross-border discussions will be encouraged.

This course involves three modules, outlined in diagram 2:

1. Induction e-learning course (3 hours) where participants will have the opportunity to learn basic concepts of modeling.
  - What is modeling and what is simulation?

- Practical applications of modeling;
  - Deterministic and stochastic simulation of models;
  - Modeling and simulation development criteria.
2. Recognized international modeling experts will lead the five-day workshop where trainees will put into practice decision support tools. Different control strategies will be incorporated into the model (vaccination, movement control, stamping out, etc.). Trainees will be shown the uses and limitations of models and will be asked to challenge the model's output and identify the most cost-benefit control intervention.

One of the courses will focus on using mathematical models data to design FMD vaccination programme and the other edition on the socio-economic aspects of FMD disease control.

Should there be a great enough demand, the EuFMD could prepare a tailored workshop on vaccination as control strategy (see below training description number 3) or on socio-economic analysis of FMD control strategies (see below training description number 4).

3. The third component of the course will consist in advanced or specialized e-learning modules available for those wishing to focus in more detail on particular topics such as: Risk Communication, disease spread prediction, logistic and disease control preparedness, socio-economy, vaccination, pros and cons of different models, etc.).

**Diagram 2:** Modeling and decision support tools course format



The modeling course will be supported by webinars where trainees and trainers can meet in a virtual space to discuss or clarify any aspects of any of the three modules.

### 3. FMD Vaccination as a Control Strategy (Upon demand, 1 TC)

***The course is intended for:*** participants from countries that use vaccinations either as a control/preventive measures or from free countries which consider the use emergency vaccination in case of an FMD outbreak.

Vaccination with inactivated FMD virus is a widely-used control strategy in endemic countries or countries at risk. Vaccines, although available, are of variable quality, not always from the homologous outbreak serotype/strain isolate and are often stored in inadequate temperature conditions. They might not be as effective in the field as determined in animal experiments.

Building capacity in vaccination strategies will support the endemic countries and those at risk of FMD incursion to prepare, implement and evaluate their vaccination strategies against FMD.

This course could be followed up by backstopping missions during which an FMD vaccine expert would travel to the participants' countries to provide in-house tailored support to specific country needs (See option 8).

The participation in this workshop will require basic knowledge in modeling techniques.

### 4. Socio-economic analysis of FMD control strategies (Upon demand, 1 TC)

***The Course is intended for:*** participants from free FMD countries interesting in the application of socio-economic tools in FMD preparedness and contingency planning.

The importance of economic and socio-economic analysis are increasingly recognized within decision makers surrounding the response to an FMD incursion.

This course will introduce key concepts and tools in animal health economics and explore the use of these as decision support tools in FMD contingency planning. Impacts of outbreaks will be examined at farm, national, and regional levels. The costs and benefits of alternative control strategies will be examined at each of these levels as well as the resulting implications for public *versus* private responsibilities for bearing related costs.

The course will also examine the different elements in decision-making, including epidemiology, economics and public opinion, and discuss how these diverse and sometimes conflicting, considerations can be brought together in a transparent and effective manner.

The participation in this workshop will require basic knowledge in modeling techniques.

## 5. FMD Preparedness and Simulation Exercise support (2 TCs)

**The course is intended for:** participants from the national, regional and local levels of the country's Veterinary Services responsible for development and implementation of FMD preparedness and contingency plans and those wishing to build their expertise in the organization and implementation of an FMD simulation exercise.

A FMD emergency is one of the most challenging situations that Veterinary Services (VS) can face. The services must be prepared to manage such an emergency to achieve rapid control efficiently. Consequently, the VS must have well-developed and rehearsed preparedness and contingency plans, along with the capacity to implement them.

These contingency plans should be tested regularly and thoroughly as part of their emergency preparedness in order to ensure that the plans are practical, feasible and well-understood and that the people facing the problem in the field are fully trained in implementing their role in the response.

The aim of this course is to strengthen a country's capability to respond to FMD emergency by defining and promoting outbreak preparedness skills. It will also cover the basics concepts of developing and implementing effective simulation exercise. It will provide guidelines for planning and conducting simulation exercise, and identifying the weaknesses and gap resources in the contingency plan. It will prepare participants to take active part in national or regional outbreak simulation activities.

## 6. Risk Based Surveillance (Upon demand, 1 TC)

**The course is intended for:** Participants from countries that have either already achieved recognition of free status or are likely to achieve this in the very near future and where there is a permanent risk of new FMD incursions.

The course aims to provide participants with techniques to design, implement and analyse risk-based surveillance data. A mathematical model for the analysis of data, which is already available to MS, should provide a generic tool for the analysis of FMD surveillance data in a wide variety of contexts and aims to strike a balance between simplicity and flexibility. The model uses the inputs for the quantitative analysis of risk-based surveillance, the combination of evidence from multiple surveillance activities, and the Bayesian accumulation of historical surveillance evidence which takes the risk of introduction of disease into account.

## 7. Laboratory Training on FMD diagnosis (On demand, 4 TC)

**The course is intended for:** participants from countries that need to build capacity in FMD laboratory diagnostic techniques.

This course will be facilitated by one of the EuFMD partner laboratories and will take place in their facilities (for instance Pirbright or Brescia). The course will provide a thorough understanding of current diagnostic techniques for FMDV including serological, molecular and virological methods of detection. It will also cover the basic principles of Quality Assurance/Quality Control and initial implementation in the laboratory.

The course has a large practical component. The participants will put into practice all the diagnostic techniques explained in the lectures.

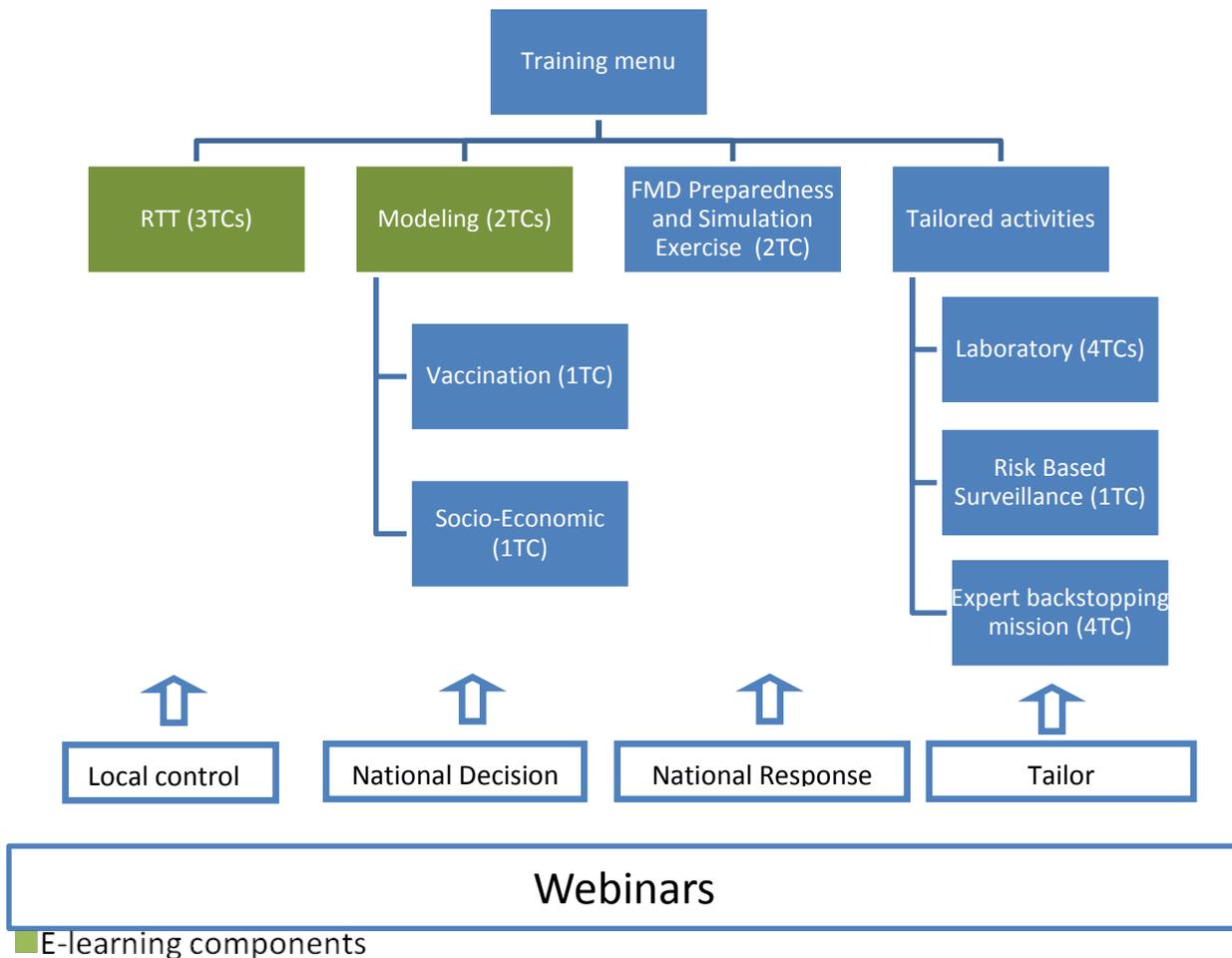
This course could be followed-up by backstopping missions during which a laboratory expert would travel to the participants' countries to provide in-house support and advice on the techniques learnt during the course (See option 8).

## 8. Expert backstopping mission in the country (Upon demand. 4 TC)

**This option is intended for** Member States that would need specific support in any aspect related to FMD preparedness and control.

The backstopping mission will consist in five days work during which an FMD international expert will travel to the country and will provide the technical support requested. The mission will be discussed in advance between the parties and will be tailored to MS needs and demands.

## Summary of training menu



### Course certification

The completion of the proposed courses will allow the trainees to obtain a training certificate. This formal qualification and the regular participation in other training activities such as webinars will be a requirement to become part of the EuFMD expert group. The role of the group will be to provide advice and expertise to national or international institutions in terms of FMD prevention, control and eradication strategies. The group should cover all epidemiological aspect of the disease. It should regularly exchange information and experience. Its members should actively participate in FMD training courses in their own countries.