

EuFMD COMPONENT REPORTS

EuFMD – ExCom95

*October
2017-March
2018*


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EuFMD Phase IV

Report to the EuFMD Executive

October 2017 - March 2018

Component 1.1 – *Training for Member States*



Pillar Manager: M.Hovari
Component Manager: R.OlivaAbascal
Reporting: R.OlivaAbascal / M. Hovari / J. Maud
Executive Committee: M. Blake

1.1-Training for Member States

1-Objectives of component

The overall objective of this component is:

Increased European expertise in FMD crisis management and improved quality of national FMD preparedness training programmes.

The activities (expected results) are:

1.1.1: System in place to enable every member state to cascade appropriate training and learning on FMD control to their public and private animal health services supported by infrastructure for learning and knowledge transfer in place, including e-learning, training resources and staff support.

1.1.2: Improved capacity in each of the MS to recognize, respond to and manage FMD through provision of a demand driven training programme supplied in response to MS priorities for training in areas of prevention, detection, and contingency planning for control operations and recovery.

Activities	Indicators	Baseline Sep. 2017	Target 2 years	Unit of measure	Current Status
1.1.1	Knowledge Bank created and in use by member states	500	3,000	Number of participants that have accessed at least one open access training course or knowledge bank resource	1,273
1.1.2	Implement >85 % of the demand driven programme	85%	85 %	Training credits allocated by the 38 MS to training activities or regional initiatives have been delivered by EuFMD	29 %

Additional non-EC funded contributions

External funding received for development of training outside the EC funded programme, including the Real Time Training courses held in Nepal and funded by Australia and New Zealand, and the additional training purchased by Member States under the “Training Credits Top-Up Scheme” contribute funding which support the development of new training courses and materials which are then also used as part of training provided to MS under the EC funded programme. In addition, these funding sources support recruitment of additional personnel, as listed in the table below:

Description	Contribution	Funding source
Component Supervisor: Training Programmes Manager	50% of one FTE role (consultant P2 equivalent)	EuFMD Trust Fund- MS contributions, Australian Real Time Training
Network and Training Support Officer	30% of one FTE role (P2)	80% EuFMD Trust Fund, 20% EC project
Development of training materials	New online training materials, course materials or job aids	Australian Real Time Training and Training Credits Top Up fund

2-Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	Mark Hovari	Contingency Planning Officer
Component Manager	Ruth OlivaAbascal	Short Term Placement
Training Manager	Jenny Maud	Training Programmes Manager
Training and networking support	Nadia Rumich	Training and Networking Officer/Secretariat
Member State partners	Training Focal Point in each EuFMD MS	n/a
ExCom oversight	Martin Blake	ExCom member (Ireland)

3-Countries or partner organizations involved

All EuFMD Member States are direct beneficiaries of component 1.1.

The main partners are:

- Training focal point in each MS. A good relationship has been established and maintained with many focal points through the first two years of the training credits scheme.
- Letter of Agreement (LoA) with Royal Veterinary College (RVC), University of London. This will be mainly for RVC to maintain the EuFMD e-Learning website, and may extend to development of the Knowledge Bank and provision of technical and pedagogical assistance in the development of new online training courses.
- Memorandum of Understanding (MoU) with the Directorate of the Veterinary Services (DVS) in Kenya on the collaboration on the Real Time Training Courses in Kenya.

4-Progress Report

- 1.1.1** System in place to enable every member state to cascade appropriate training and learning on FMD control to their public and private animal health services supported by infrastructure for learning and knowledge transfer in place, including e-learning, training resources and staff support.

Activities:

1.1.1.1 Training infrastructure: staffing and technical resources

Staffing

Ruth OlivaAbascal (Spain) joined on a Short Term Placement from September 2017 has managed component 1.1. for the six-month period of her placement.

Chiara Addari (Operational, e-learning and training logistics) manages the administration for the EuFMD e-learning platform, including creation of online resources, registration and liaison with training participants and co-ordination of webinars. The rapidly rising number of e-learning courses being delivered demands increased staffing.

Amir Shurrab continues as a consultant specialist learning technologist and instructional designer for ad-hoc instructional design of new e-learning courses alongside advanced technical troubleshooting support to the e-learning programme.

Jenny Maud (Training Programmes Manager) co-ordinates training development across the EuFMD programme, and oversees the delivery of the e-learning programme. Mark Hovari (Contingency Planning Manager) supervises component 1.1. Nadia Rumich manages communications on training, the webinar programme and networks.

Recruitment of additional interns is currently underway, and experience of development and management of e-learning will be part of these new internships, providing valuable administrative support to the e-learning programme.

Technical resources: EuFMD e-Learning Platform (<https://eufmdlearning.works>)

The EuFMD e-Learning Virtual Learning Environment now has over 5700 registered users. The site is hosted on servers at the Royal Veterinary College, who provide technical support for its maintenance. Advanced discussions are underway with the Royal Veterinary College for the potential continuation of their support to the e-learning programme.

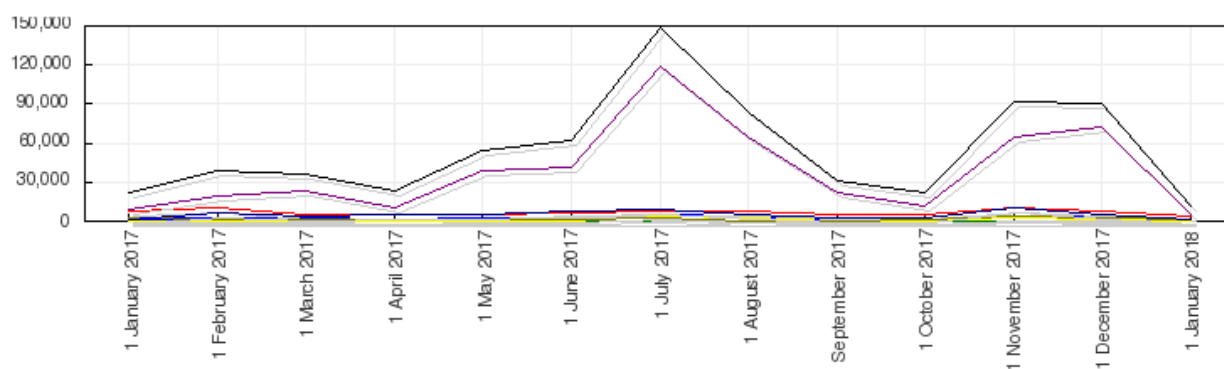


Figure 1: Activity on the EuFMD e-learning site (number of clicks by different participant types) over the last 12 months, illustrating sustained increase in user numbers.

Technical Resources: Webinars

Webinars are organized frequently, with on average two per week. The software used has been recently upgraded to allow up to 500 simultaneous users.

Upgrade of the EuFMD e-Learning website to a new Moodle instance is scheduled for mid-2018. Negotiations are underway with Royal Veterinary College for continued support to EuFMD e-Learning, including increasing server capacity to manage a larger number of users.

1.1.1.2 Training infrastructure: online knowledge bank development (in co-operation with other training components)

The online EuFMD Knowledge Bank (<http://kb.eufmdlearning.works/>) includes 430 resources, and these resources have been accessed nearly 10,000 times over the last six month period (individual “clicks” on resources).

A review of the Knowledge Bank has taken place and planned improvements include:

- Alterations in the ordering and prioritization of search results;
- Improved, tighter categorization of resources;
- New section of e-learning website showcasing resources in the knowledge bank, including a “Resource of the Month”.

1.1.1.3 Open access areas of EuFMD e-Learning website

An open access “**Introduction to FMD**” course has been developed and made available on the EuFMD e-Learning website. This course takes approximately 90 minutes to complete and is a shortened version of the FMD Emergency Preparation Course. It is hoped it will be a useful tool for all member states to direct their staff to, and should also attract users to the e-learning site, encourage them to explore the networks and other training resources available. It will be suitable for Member States to use as an introduction to face to face national

training courses, and also as a resource for veterinary students. Following initial use in English, the course will be translated into additional priority EU languages.

The open access “**What is the PCP?**” and “**Introduction to the PCP**” courses (see component 2.4) have been made available since February 2017.

An open access “**Contingency Planning Self-Assessment Tool**” is in the final stages of development. This tool, which has a game-like interface, will serve dual functions. It will allow contingency planners to assess their own plans and direct them to resources which may be used to improve contingency plans. In addition, as an open access resource, the tool will be available to anybody interested in FMD contingency planning, signposting users to resources available in the Knowledge Bank and contingency planning network.

1.1.1.4 Training infrastructure: framework for monitoring and evaluation

All training courses are evaluated by an online survey immediately after the final task, with summative assessments to verify participant’s knowledge at the end of each online training courses. A protocol for evaluation of each training course, based on the evidence provided by the survey and assessments is now well used. All results of surveys and evaluation documents are stored on a dedicated “trainers” section of the EuFMD e-Learning platform, and are shared with relevant nominating organizations.

1.1.1.5 Develop knowledge transfer tools and job aids

New knowledge transfer tools and job aids developed in the last four months include:

Videos:

- Clinical examination for FMD
- Diagnostic sampling for FMD
- Taking a Probang Sample
- Biosecurity (entry and exit) with German subtitles.

Factsheets:

- Lesion ageing (new)
- Diagnostic sampling according to stage of disease.

1.1.1.6 Support to in-country training courses

EuFMD introduced at the NTC24, June 2016, a written agreement with the Member States’ participants of the Real Time Training Kenya to deliver a national cascade training, based on the knowledge and experience acquired during the course in Kenya, after their return from the RTT. All participants are given one year to develop this national course, with the assistance, if required, from EuFMD Training Team. The idea behind this new approach is to increase the impact of the RTT courses on the preparedness of the countries on foot-and-mouth. EuFMD records any planned and completed cascade national course after the NTC courses since June 2016. In the case of various participants from the same country attending the same RTT, the EuFMD is not asking for more than one cascade training and they are encourage to collaborate for a single cascade training. Therefore, both number of participants (as individual) and number of countries (in case of more than one participant from the same country in the same RTT) for each of the NTC, are recorded.

NTC Real Time Training	Nb of participants	Nbr of countries participant	Nb of cascade planned	Nb of cascade training completed*
NTC24	12	9	3	3
NTC25	12	11	1	3
NTC26	10	10	4	4
NTC27	7	6	-	-
NTC28	11	9	-	-
TOTAL	52	45	14	10

*The cascade training planned do not include the training already delivered and completed

NTC27 and NTC28 were held in November and December 2017 and the participants are not expected to have delivered any cascade training at this point in time.

1.1.2: Improved capacity in each of the MS to recognize, respond to and manage FMD through provision of a demand driven training programme supplied in response to MS priorities for training in areas of prevention, detection, and contingency planning for control operations and recovery.

Activities

1.1.2.1 Training Credits system and needs assessment

During this six-month period, several training courses were implemented in order to cover the needs assessed and received from all 38 Member States. At the beginning of the second biennium, 344 of the 388 Training Credits (TC) available for training in 2017-19 were allocated by Member States. 56 unused Training Credits from the first biennium, not included in the total account of Training Credits for this second biennium, should be converted for the use of the Regional approach for the current biennium (please see 1.1.2.5). There are still 45 Training credits unallocated for this biennium currently. The focal points from the MS will be contacted and will be able to allocate any TC left for any event they request. If not, these TC will be included in the pool of unallocated Training Credits to be added to the Regional approach events. The EuFMD has received a very good response from the MS regarding the allocation of Training Credits and an improvement of the overall quantity of TCs used has been observed.

Nevertheless, there are still four MS whom have not allocated any of the TCs, neither have they reallocated these unused TC for the benefit of another MS or a particular region. The EuFMD has not received to date any response on allocation of Training Credits from Cyprus, Luxembourg, Netherlands and Switzerland.

The table below shows an update on the courses delivered since the beginning of the training period to date with the number of credits allocated. This is still the beginning of the biennium which is, predominantly, the planning stage and many of the events are planned for later.



Table 1: Training courses **Delivered** and (Allocated) to date

Course	Training credits	Number of trainees	Training credits delivered (allocated)
1) Real Time Training (now with the requirement that participants carry out cascade training when they return home)	3 credits for 1 participant	32 (44)	96 (132)
2) Online FMD Emergency Preparation Course: English language Online course for multiple Member States in English	1 credit for 20 participants	(380)	(19)
3) Online FMD Emergency Preparation Course: Tailored National Course Online course in national language, tailored to specific country requirements	6 training credits for 120 participants	(240)	(12)
4) Online FMD Emergency Preparation Course: subsequent national course	4 training credits for 120 participants	123 (480)	4 (16)
5) Workshop: “Managing a crisis” Establishing train of command and managing communication within and outside the veterinary service in a crisis situation	2 training credits for one participant	(19)	(38)
6) Workshop: “FMD Simulation exercises” Design, implementation and evaluation of simulation exercises	2 training credits for one participant	(15)	(30)
7) Workshop: “Putting vaccination into practice” Desktop simulation based workshop looking at contingency planning on all aspects of FMD vaccination and subsequent proof of freedom	0 training credit for one participant	(10)	(20)
8) Workshop: “FMD Wildlife surveillance” Better understanding of FMD surveillance in wildlife, particularly by using non-invasive methods.	2 training credits for one participant	(15)	(30)
9) Workshop: “Veterinary Ethics” Exploring ethical conflicts, clarifying professional roles and responsibilities.	2 training credits for one participant	(4)	(8)
10) In-country support on FMD modelling: Assistance to the country in order to progress in the development of national disease spread models.	2 training credits for one participant	(4)	(8)
11) Laboratory Training Course Two week intensive course on FMD diagnostics run by the Pirbright Institute	4 training credits for one participant	(3)	(12)
12) Regional event: A possibility for each sub-region to have a tailored course to meet their specific needs to increase FMD preparedness.	2 training credits for each country with the support by additional training credits	(9)	(19)
Total number of training credits Delivered – (Allocated)			100 (344)

A balance of the 370 credits available for training in 2015-17 to date is as follows:

- ❖ 344 TC have been allocated, and **29% of the allocated training credits have been delivered by EuFMD**
- ❖ They are still **45** unallocated training credits at this point. Nevertheless the EuFMD Member States focal points will be contacted to discuss the best way to proceed with these credits.

1.1.2.2 Development of new training courses

New courses were developed during the last six months, including a bilingual training (English/Spanish) in FMD Emergency Preparation Course for the Caribbean Region, delivered in collaboration with PANAFTOSA.

The EuFMD is planning to develop and deliver a new online course on Veterinary Ethics as an alternative to the Workshop expected to take place, as there may not be enough interest by the Member States to participate in a workshop. Allocations to this workshop from several MS have been received and it is an initial approach to the theme with a potential workshop in the future.

1.1.2.3 Delivery of training courses

To date, the following training courses have been delivered during the work programme:

- **Real Time Training** courses in Kenya were held in November and December 2017. One Real Time Training course was held in Nepal in February 2018, originally planned for Kenya. There should be one course in November-December 2018. All the countries that allocated credits to this training option had the opportunity to nominate participants to attend to one of these courses.

The EuFMD has two major online courses during this six-months training period.

- **On-line FMD Emergency Preparation Course for the Caribbean Region** was held in January-February 2018. The aim of this training was to make participants familiar with the concepts of surveillance, risk based surveillance and surveillance systems for: early detection, case detection during an outbreak and surveillance to prove freedom with emphasis in the particularities of the Caribbean region. This course has been delivered with close collaboration with PANAFTOSA.
- **On-line FMD Emergency Preparation Course for the UK (UK3)** was held in February-March 2018, for 123 participants. The aim of the course is to prepare veterinarians to recognize, diagnose and investigate an FMD outbreak. It also covers biosecurity measures to be taken when visiting premises suspected of infection and provides an overview of contingency planning. This particular on-line course was also aimed to link up with the on-going emergency preparedness in the UK, "Exercise Blackthorn".

1.1.2.4 Training focal points informed of training opportunities and feedback

Training focal points have been contacted regularly about upcoming courses, to request their nominations of participants, to give their feedback on different issues, etc.

In October 2017 the EuFMD held the 1st webinar for the MS National Training Focal Points (NTFP) in this biennium, to discuss the new Training Menu and, in particular, the new courses and events included in the Training menu for the second biennium of Phase IV, such as:

- The Veterinary Ethics workshop;
- The Regional event was explained to the focal points in details;
- The new In-country support on FMD modelling was also presented and explained;

- The new possibility of reallocation of Training credits to sub-region or another country was introduced as well.

Before the development of the new Training Menu for this biennium, the EuFMD took into consideration the responses received from the consultations that was held in August 2017, to discuss overall satisfaction of the MS with the training provided, the changes to the current Training Menu, to foreshadow the Regional approach and gain a better understanding on the needs for novel training courses. In particular, the interest observed in the new courses on wildlife surveillance workshop, Veterinary Ethics and in-depth Risk Communication and an overall support for the Regional approach.

1.1.2.5 Regional approach

The EuFMD developed a proposal for the Executive Committee on a sub-regional collaboration of the Member States for training purposes. The possible benefits of this approach considered were:

- strengthen the relationships between neighbouring countries;
- improve the cooperation in activities related to FMD preparedness and surveillance;
- Cost- effectiveness of spend training credits.

The proposal was to receive a donation of two TC, from their ten TC pool, from each MS for their region to be spent on a regional activity. Each TC donated was going to be supported by EuFMD with another TC derived from unspent training credits of the first and second biennium.

In order to apply a regional approach to organize EuFMD training courses, sub-regional discussions needed to be held with the training focal points to allow find the regional needs and the best way to apply this concept.

There was a very good response from the survey in August 2017 which supported this new concept. It was considered an ideal use of the unused TC, which could also explore the possibilities of developing events with neighbouring countries with similar necessities.

Nine MS have opted to allocate TC for regional events. Unfortunately, as these countries do not belong to the same regions, there is the need to rethink how to manage these intentions, as the benefits of neighbouring countries for reduced travel costs cannot be implemented

It is probable that the limited number of the TC available for each MS, and the necessities on allocating to other courses might have been an impediment to allocate any TC for this regional events.

5-Issues for Executive Committee attention arising during implementation

To date, 45 credits have not been allocated. Some countries have never allocated their training credits or not all of them, despite repeated reminders. In some cases, participation in Real Time Training was cancelled at the last minute.

The countries with the highest number of unallocated or unspent training credits were: Cyprus, Switzerland, Netherlands and Luxembourg. An improvement from the previous biennium has been observed.

On one side, the EuFMD is looking for options to improve the engagement and participation from the countries that are not answering to our requests to allocate and use their training credits. On the other, the EuFMD would like to allocate unspent TC to the regional approach both from the first biennium and during the second biennium in order to recycle these funds and redistribute equally between the MS.

Even if the completion rates of the FMD Emergency Preparation Courses are generally good, there is a significant variability between the Member States taking these courses. There is the need for an analysis of why in some cases the completion rate was lower than average, in order to adapt better the course to the needs of each particular country.

The need for continued increase in human resource support for the expanded e-learning has been met by the recent recruitment of an e-learning technologist.

6-Priorities for the next six months

1.1.1: System in place to enable every Member State to cascade appropriate training and learning on FMD control to their public and private animal health services supported by infrastructure for learning and knowledge transfer in place, including e-learning, training resources and staff support.

- The knowledge bank will be upgraded with new features and search functions following review of current use;
- Open access online courses will be publicized to Member States to ensure good uptake;
- Development of additional job aids and training resources for the Knowledge Bank;
- Follow up on additional opportunities to promote national cascade training.

1.1.2: Improved capacity in each of the MS to recognize, respond to and manage FMD through provision of a demand driven training programme supplied in response to MS priorities for training in areas of prevention, detection, and contingency planning for control operations and recovery.

In the next six months the focus will be on continue to organize the online courses, workshops and events which have been allocated by the Member States.

- **Online FMD Emergency Preparation Courses (FEPC)** will be delivered during the second biennium. These course have been delivered to more than 1000 veterinarians from Member States on seven courses to date and three more are planned to comply with the Member States request for this period of time (there is a request of at least 380 new participants, from 19 different Member States for this biennium). These courses are run in English and have participants from several Member States.
- **National tailor made FMD Emergency Preparation Courses** were held, in their own national languages, The EuFMD has, up to date, national courses tailored for Spain, France, United Kingdom, Estonia and Serbia. This biennium, subsequent national courses for France, Serbia, Spain and United Kingdom will be delivered (which will include the role of the participants to the Simulation Exercise that will take place after the course). Additionally, there are two new national courses for this biennium: Hungary and Poland. This tailored national courses will be delivered in their own language, which will increase the capacity of FMD Emergency Preparation Courses in diverse languages.
- **Workshop on Crisis Management** has been organized for mid-March 2018, in Kaunas (Lithuania). The aim of the workshop was to increase the ability of Veterinary Services in Member States to manage an outbreak of foot-and mouth disease by effective emergency management and excellent internal and external communication.
- **Workshop on Wildlife surveillance** has been organized for May 2018, in Sofia (Bulgaria). The aim of this workshop is to provide participants with a better understanding of FMD surveillance in wildlife, particularly by using non-invasive methods.
- **Workshop on Simulation exercises** will be organized for November 2018. The aim of the workshop is to teach participants about how to select, design, conduct and evaluate simulation exercises through actually designing and carrying out small simulation exercises during the workshop. Furthermore the workshops aimed to make participants aware of the value of having a strategic approach to simulation exercises and use them within the context of their overall emergency preparedness.

- **In-country support on FMD modelling** has been organized for April 2018 to Spain. The EuFMD is organising three more missions for In-country support on FMD modelling to FYR of Macedonia, Romania and Turkey.

The use of unused TC for this biennium must be taken into account. What is the best approach for the Regional Event for the nine Member States which have allocated two of their TC for this option?

After the initial TC allocation, steps have been taken to plan for the various activities requested and hopefully deliver e-learning and/or workshops before the next Executive Committee in April 2018.

In parallel, after the regional approach concept will be established, initial consultation with the relative groups has to begin so that the activities can be implemented with minimum delay.

7 - Success stories and future emphasis

A major success is the inter-organizational collaboration with CaribVet and PANAFTOSA on the FMD Emergency Preparation Course for the Caribbean Region, January – February 2018. It involves over 120 participants from 16 countries, including the overseas territories of United Kingdom, France and The Netherlands. This is the first course developed and delivered simultaneously in two languages (English and Spanish) and lead by bilingual expert trainers.

Future emphasis of the component will be mostly on delivery of the training courses selected by the member states and maintain the support to Member States to facilities their own FMD trainings with the help of open access courses and the materials found on the knowledge bank.

8- Budget (€)

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
522,975	27,078	115,200	29 %	371,570

9-Gantt charts - Planned activities

1.1 Training for MS	OUTPUT 1.1 Increased European expertise in FMD crisis management and improved quality of national FMD preparedness training programmes		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	1.1.1 Develop the training infrastructure to enable every member state to cascade appropriate training and learning on FMD control to their public and private animal health services	1.1.1.1 Training infrastructure: staffing and technical resources																								
		1.1.1.2 Training infrastructure: online knowledge bank development (in co-operation with other training components)							P																	
		1.1.1.3 Open access areas of the EuFMD e-Learning website																								
		1.1.1.5 Develop knowledge transfer tools and job aids																								
		1.1.1.6 Support to in country training courses																								
	1.1.2 Implement demand driven training in response to MS priorities in areas of prevention, detection, and contingency planning for control operations and recovery	1.1.2.1 Training credits system	P W	P	P									P					P							
1.1.2.2 Development of new training courses																										
1.1.2.3 Delivery of training courses			TR		EL	TR EL	WS EL		WS	EL			EL		TR WS			E L	WS		EL	EL				
1.1.2.4 Training focal points informed of training opportunities and feedback																										
1.1.2.5. Regional approach		P	P	P	P	P	P	WS TR				WS TR	WS TR		WS TR				WS TR							WS TR

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 1.2 – Improved Contingency Planning



1.2. – Improved Contingency Planning

1-Objectives of component

The overall objective of this component is: to improve contingency planning by Members and at European Level.

The activities (expected results) are:

1. System (networks) in place to assist contingency planning in every member state through providing technical support to the contingency planners and FMD modelling expert groups to improve the national capability on modelling, contingency planning, simulation exercises;
2. Improved system established for providing central resources for crisis situations including decision support tools (including disease spread and economic models), provision for diagnostic supplies, emergency access to national or regional vaccine banks, and sharing of critical human resources.

<i>Activities</i>	<i>Indicators</i>	<i>Baseline Sept. 2017</i>	<i>Target years</i>	<i>2</i>	<i>Unit of measure</i>	<i>Current Status</i>
1.2.1	Annual Participation in online meetings or webinars	300	300		Participation in online meetings or webinars	424
1.2.2	Number of published: Decisions Support Tools, discussion papers and guidelines that have been peer-reviewed	2	5		Published tools and guidance that has been peer-reviewed	2

2-Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	Mark Hovari	Contingency Planning Officer
Component manager	Graeme Garner	FMD Risk Management Support Officer
Training and networking support	Nadia Rumich	Network and Training Support Officer
Other EuFMD team members	Melissa McLaws	Risk analysis/Pragmatist tool
Advisors	Modelling and CP advisory groups	Volunteer representatives from the modelling and CP networks.
STC oversight:	Eoin Ryan	STC
ExCom oversight		

3-Countries or partner organizations involved

The direct beneficiaries of the work of component 1.2 are all of the EuFMD member states, and in particular modeling groups and contingency planners at academic and government institutions. Beyond EuFMD Member States, component 1.2 has sought to network with partners in other regions of the world actively involved in using modeling to inform contingency planning.

Consultation will occur with the **Food and Veterinary Office of the European Commission (FVO)** in order to ensure that the activities of component 1.2 are complementary to FVO activities on Contingency Planning.

The FMD Economic Impact Calculator was developed through a Letter of Agreement with Prof. Jonathan Rushton and colleagues at the **Royal Veterinary College, London, UK**.

4-Progress Report

Output 1.2.1. System (networks) in place to assist contingency planning in every member state through providing technical support to the contingency planners and FMD modelling expert groups to improve the national capability on modelling, contingency planning, simulation exercises.

Activities

1.2.1.1 Contingency planning network

The contingency planning network currently counts 315 members.

There were no new webinars held in this period, but all of the previous webinars can be accessed through the EuFMD e-learning website's Contingency Planning Network page.

1.2.1.2 Modelling network:

The Modelling network is continuing to grow and engage members from Europe, North America, Australasia, and beyond. There are presently 292 members.

The webinar series is a popular platform for modellers working with FMD to present their work to the international community of modellers and contingency planners. In September 2017, Dr Graeme Garner took over the role of network coordinator from Melissa McLaws.

Since the 94th ExCom, two webinars, a main tool for learning and information sharing, were delivered:

- In December 2017, Siyi Feng presented "[Market Impact of Foot-and-Mouth Disease Control Strategies: A UK Case Study](#)"
- In October 2017, Graeme Garner presented "[Evaluating options for managing vaccinated animals after an FMD outbreak. A modelling study](#)".

All records of the webinars are available on the EuFMD e-learning website under the Modelling Network tab.

1.2.1.3 Emergency Vaccination network:

The Vaccination Network currently has 213 members.

There were no new webinar held in this period. But all records of the webinars are available on the EuFMD e-learning website under the Vaccination Network.

1.2.1.4 Development of guidelines:

In synergy with the European FMD spread model under Component 1.2, a series of guides have already been written that guide countries step-by-step in which data is needed to be extracted and provided in order to be used in the EuFMD-IS.

To meet the indicator 1.2.2, the following items have been completed or will be completed in this biennium

1. A Position paper on FMD vaccination issues was delivered in June 2016;
2. The AESOP (Assured Emergency Supply Options) paper was delivered in October 2017;
3. Emergency Vaccination Guideline will be finalized in 2018;
4. Crisis Communication Guideline will be finalized in 2018;
5. EuFMDiS, a major decision support tool, will be delivered in 2018.

1.2.1.5 European, multi-country animal disease spread model

Graeme Garner is leading this project to develop a European multi-country modelling capability, following endorsement of the project proposal to adapt the Australian FMD model (AADIS) for use in Europe, by EuFMD's Executive Committee in October 2017. Seven countries have enrolled in the European FMD spread model (EUFMD-iS) project (Austria, Bulgaria, Croatia, Italy, Hungary, Romania and Slovenia).

Discussions have been held with Australia regarding an intellectual property deed of license for access to the Australian Animal Disease model (AADIS) software and a draft that meet's FAO's legal requirements has been prepared. The project is progressing well. An on-line network, for project partners, to provide a discussion forum and share resources has been established. Contact is maintained by regularly through on-line meetings and a workshop was held 5-7 December 2017, in Vienna, Austria, to bring the participating together to discuss the scope of a multi-country European disease spread model, and to identify the country-specific data required and agree on project time frames, and deliverables. Participants have identified and defined livestock production regions within their respective countries and agreed on a common herd classification system which are essential to make progress in the project.

Output 1.2.2. Improved system established for providing central resources for crisis situations including decision support tools (including disease spread and economic models), provision for diagnostic supplies, emergency access to national or regional vaccine banks, and sharing of critical human resources.

Activities

1.2.2.1 Economic impact calculator:

Under a Letter of Agreement (LoA), a prototype economic impact calculator was developed by a team at the Royal Veterinary College lead by Jonathan Rushton, with a final report submitted at the end of June 2015. This calculator is intended to assist previously free countries to rapidly assess the impact of an FMD outbreak, as well as guide the selection of the most economically favorable strategy to control the outbreak. Wider socioeconomic impacts are also considered qualitatively.

Whilst the prototype calculator has been developed, the tool must still be validated and refined further to comments from users and simulations with data input. Integration with other decision support tools (e.g. disease spread models) should also be considered.

1.2.2.2 Support to development of diagnostic banks:

No activities have been carried out.

1.2.2.3 Support to emergency access to vaccine banks:

An Expressions of Interest (EoI) for eligible companies for a public tender to establish a Long-Term Agreement for the "Storage of concentrated antigens, formulation and supply of vaccines for foot-and-mouth disease for FAO projects worldwide" was launched in 14 December 2017 and was closed on 15 January 2018. Responses were received from 10 companies.

Activity 1.2.2.4 Support to sharing critical human resources:

No activities have been carried out.

1.2.2.5 Other decision support tools

No activities have been carried out.

1.2.2.6 Private Sector involvement in Emergency Preparedness and management

No activities have been carried out.

5-Issues for Executive Committee attention arising during implementation

The various discussion papers under 1.2.2 such as: the development of diagnostic bank, sharing critical human resources and private sector involvement in emergency preparedness and management were not addressed during this period. This is due to the focus of the component resources (CM and CS) toward the initial development of the EuFMD-iS. After the initial work on the EuFMD-iS is completed the workload can shift back to the topics listed under 1.2.2.

The Contingency Planning (CP) and Vaccination networks are behind in delivery, due to the current focus of the EuFMDiS. Once the EuFMDiS first working versions are delivered, the application of this DST will deliver several webinars for the Pillar I networks.

6-Priorities for the next six months

Outcome 1: System (networks) in place to assist contingency planning in every member state through providing technical support to the contingency planners and FMD modelling expert groups to improve the national capability on modelling, contingency planning, simulation exercises.

Activity 1.2.1.1 Contingency planning network:

The main focus is on continuing with the FMD practical management series to cover the final topics on biosecurity and laboratory. Following which, in line with the work of the GET Prepared Pathway, a new webinar series will be drafted. It will focus on Emergency Preparedness and its related topics (planning, training and exercises) as the main theme.

Activity 1.2.1.2 Modelling network:

Further webinars have been lined up for early 2018:

- Rowland Kao presenting “An integrated framework for process-driven model construction in ecology and animal health”.
- Thomas Rawdon presenting “Evaluating vaccination strategies to control foot-and-mouth disease: a country comparison study”.
- APHIS, USDA (to be advised) presenting “Estimating FMD modelling parameters using experimental data”.

Activity 1.2.1.3 Vaccination discussion network:

The main focus is to hold a webinar introducing the guidelines on developing an FMD emergency vaccination operational plan and explore other topics which could be covered under this network.

Activity 1.2.1.4 Development of guidelines:

- The work on the guidelines to develop an FMD emergency vaccination operational plan close to final.
- In synergy to the upcoming Crisis Management workshop under component 1.4 the guide on crisis communication will also be finalized by April 2018;
- In synergy with the upcoming GET Prepared workshop under Component 1.4 Balkans, the first outline and annexes of the get prepared will be delivered;

1.2.1.5 European, multi-country animal disease spread model

A work plan has been developed and work on collecting and processing country data, including population data sets and animal movement data and data on inter-country movements from the TRACES system is underway. An implementation plan for the EuFMD-iS model software development is in place, with the aim of a working prototype being available by 30 June 2018.

Outcome 2: Improved system established for providing central resources for crisis situations including decision support tools (including disease spread and economic models), provision for diagnostic supplies, emergency access to national or regional vaccine banks, and sharing of critical human resources.

Activity 1.2.2.1 Economic impact calculator:

Search for new opportunities to receive feedback in the impact calculator.

Activity 1.2.2.2 Support to development of diagnostic banks:

Continuing work on development of diagnostic bank is needed.

Activity 1.2.2.3 Support to emergency access to vaccine banks:

Continuing work on the AESOP.

Activity 1.2.2.4 Support to sharing critical human resources:

Continuing work on development on sharing critical human resources is needed.

1.2.2.5 Other decision support tools

Continuing work on decision support tools is needed.

1.2.2.6 Private Sector involvement in Emergency Preparedness and management

Continuing work on Private Sector involvement in Emergency Preparedness and management is needed.

7 - Success stories and future emphasis

Improving readiness to manage an FMD outbreak is a priority of the EuFMD program and improving the use of decision-support tools has been a focus of EuFMD training. At the 41st General Session, *Continuing support to animal movement and disease spread modelling, with the outputs to inform contingency planning activities* was identified as a priority for the Standing Technical Committee (STC), to be supported through the allied components of the workplan. Following discussions, a project proposal to adapt the Australian FMD model (AADIS) for use in Europe was submitted and approved under EuFMD – Future Animal Research (FAR) funding in 2017. In October 2017, EuFMD's Executive Committee endorsed support for this work, with a pilot study involving a number of central European countries. This collaboration builds on an initiative proposed by Austria in 2016, during the CVO meeting, held in Budapest, Hungary to establish regional cross-border modeling for Transboundary Animal Diseases (CroBoDiMo initiative).

The project objective is to adapt the AADIS model to provide a robust, flexible training tool (EuFMD-iS) to support FMD planning, training and response in European countries. AADIS, developed with funding by the Australian Government, is a sophisticated disease modelling platform and decision-support tool for FMD that has been used in EuFMD disease modelling training workshops (in 2014 and 2016), where its potential to be adapted to support FMD planning and training in EU member states was identified.



The activity has received a very positive response with seven countries (Austria, Bulgaria, Croatia, Italy, Hungary, Romania and Slovenia) enrolled in project. Other countries, including Spain), are also showing interest. A workshop to discuss the scope of a multi-country European disease spread model, and to identify the country-specific data required and agree on project time frames, and deliverables was held in Vienna Austria 5-7 December.

A work plan has been developed and work on collecting and processing country data is underway. The project is on track to deliver a working prototype by 30 June 2018.

8- Budget (€)

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
142,154	18,920	0	13 %	123,234

9-Gantt charts - Planned activities

1.2 Improv ed CP	OUTPUT 1.2 Improved contingency planning by Members and at European level		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	1.2.1 Provide technical support to maintain and strengthen three networks of contingency planners and FMD modeling expert groups to improve the national capability on modelling, contingency planning, simulation exercises	1.2.1.1 CP network				W EB	W EB	W EB	W EB	WE B	WEB								WEB	WEB	WEB	WEB	WEB	WEB		
1.2.1.2 Modelling network		W E B		W E B	W EB	W EB	W EB	W EB	WE B	WEB								WEB	WEB			WEB	WEB			
1.2.1.3 Emergency vaccination network							W EB			WEB							WEB	WEB	WEB							
1.2.1.4 Dev. of guidelines							GT P	GT P						G T P								GTP				
1.2.1.5 EU, multi-country animal disease spread model		O M	O M	W S	O M	O M						W S														
1.2.2 Develop the system of support to contingency planners for crisis situations including decision support tools (including disease spread and economic models), system for provision for diagnostic supplies, emergency access to national or regional vaccine banks, and sharing of critical human resources	1.2.2.1 Economic impact calculator							GT P						G T P												
	1.2.2.2 Support to dev. of diagnostic banks							GT P																	GT P	
	1.2.2.3 Support to emergency access to vaccine banks							GT P						G T P												
	1.2.2.4 Support to sharing critical HR							GT P						G T P												
	1.2.2.5 Other decision support tools													G T P												
	1.2.2.6 Priv. Sector invlm in Emergency Prep & mgt							GT P																	GT P	

EuFMD Phase IV

Report to the EuFMD Executive

October 2017 - March 2018

Component 1.3 – *Thrace*



Pillar Manager: M. Hovari
Component Manager: P. Motta
Reporting: P. Motta / M. Hovari
Focal point Executive Ctte:

1.3 THRACE

1. Objective of the component

The Objective of this component is improved surveillance and management of FMD and other exotic diseases in the Thrace region of Greece, Bulgaria and Turkey.

The activities (expected results) are:

1. Maintenance of FMD freedom in Thrace region, and confidence at all times in this status on the basis of co-ordinated surveillance, and maintenance of confidence in capacity for early detection of FMD and containment if incursions were to occur.
2. Maintenance and improvement of a system for real-time data entry to support management of national surveillance activities aimed at maintaining disease freedom confidence;
3. Achievement of four years of risk-based surveillance results through activities implemented in each country for FMD (and other diseases as decided by Coordination Framework); in 2015-17 with the expected result of providing evidence for freedom from FMD, PPR and LSD in European Turkey and the neighbouring countries;
4. Improvement of capacity to respond to exotic disease incursions into the common border region, through participation in joint exercises and development of harmonised levels of contingency planning.

<i>Activities</i>	<i>Indicators</i>	<i>Baseline: Sept.2017</i>	<i>Target 2 years</i>	<i>Unit of measure</i>	<i>Current Status</i>
1.3.1	Tripartite Management Meetings held	5	9	Tripartite Management Meetings held involving staff of the three countries	6*
1.3.2	Maintain the data entry system with data entry meeting agreed targets	>75%	75%	Percentage of reports entered by field operatives within expected time frame	>75%
1.3.3	The level of confidence in FMD disease freedom in Thrace region is higher than if activities stopped	> 90%	90%	Confidence in disease freedom	>90%
1.3.4	Joint exercises	2	3	Joint exercises of the three countries	2*

Management Meetings: 13 November 2015, Alexandropoulos, Greece; 18 October 2016, Alexandropoulos, Greece; 27 February 2017, Sofia, Bulgaria; 08 September 2017, Athens, Greece

Tripartite: 27 February 2017, Sofia, Bulgaria; 12, October 2017, Backweston, Ireland

*Simulation Exercise Workshop in Sofia February 2017; Erzurum Training July 2017.

2 - Project team

Role	Name	Status
Pillar Manager	Mark Hovari	Contingency Planning Officer
Component manager	Paolo Motta	Short Term Professional
National focal points	Tsviatko Alexandrov (Bul) Sotiria Roula Antoniou (Gr) Naci Bulut (Tur)	Consultant, SCRPD member Hellenic Animal Health Directorate Consultant
National consultants: Greece: Bulgaria: Turkey	Aris Exakoidis (Field) Christina Fouki (Lab) Alexandra Miteva Georgi Georgiev Stoyan Moldovanov Abdulnaci Bulut OktayTezal	PSAs and Consultants
ExCom oversight	-	-

3 - Countries or partner organizations involved

EuFMD member states: Bulgaria, Greece, Turkey.

4 - Progress Report

Output 1.3.1. Maintain the co-ordination framework for surveillance for FMD freedom in Thrace on the basis of coordinated surveillance, and maintenance of confidence in capacity for early detection of FMD and containment if incursions were to occur.

1.3.1.1. Co-ordination framework between veterinary services and laboratories of the three countries maintained and improved through tripartite, management, and technical meetings

The Tripartite meeting will be held in Dublin, Ireland, on 12th October 2017. The meeting was chaired by EuFMD, OIE and FAO and attended by the European Commission, the Bulgarian Food Safety Agency, the Greek Animal Health Directorate, the Şap Institute (Turkey), National Focal Points (NFPs) of Greece, Bulgaria and Turkey, component supervisor. Online meetings are held with the NFPs to ensure regular communication and planning of the technical aspect between formal face-to-face meetings.

1.3.1.2. Regular assessment of FMD risk present in Thrace, and of preventive and control measures implemented in the area

The FMD risk is regularly assessed with the review of the ongoing surveillance and control measures in the region through the communication of changes affecting the programs defining these measures. Regularly, during the Management meetings Greece, Bulgaria and Turkey directly report on their respective FMD situations. The updated situations on the activities and outcomes, within the framework of FMD surveillance, as well as of other transboundary diseases (TADs), is presented and openly discussed. If risks are identified for the incursion of FMD and other TADs in Thrace these are also jointly addressed and actions discussed.

1.3.1.3. Continuation of system for regular active and passive surveillance of presence and absence of FMD and other TADs

There are currently six national consultants implementing the activities for the surveillance programme in the Thrace region. Campaigns of awareness and communication for the risk of FMD and other TADs were targeted at farmers, aiming to promote their involvement in reporting presence or absence of infectious diseases including FMD. Together with the Bulgarian National Focal Point (NFP), the EuFMD developed awareness raising materials on FMD in wildlife for stakeholders involved in wildlife management and hunters. The leaflets and fact sheets focused on clinical symptomatology and disease transmission dynamics and have been translated into Bulgarian and are foreseen to be delivered in Greek and Turkish.

In Bulgaria, between October - February 9,836 animals have been clinically examined and 1,404 samples taken. In Greece, in the same time period, 5,052 animals examined and 1,176 samples were taken. In Turkey, in the same period, 32,349 animals were examined and 1,643 samples taken.

Output 1.3.2. Maintain and improve a system for real-time data entry to support management of national surveillance activities aimed at maintaining DF confidence.

1.3.2.1 System for real-time data entry maintained

The current online Database through the Google Fusion Tables platform is free of charge and enables sharing online surveillance data from the region. This software automatically provides visualization of geographical locations of the epidemiological units (farms or villages). It also allows to create “heat maps” showing density of population of susceptible animals by species as well as of epi units visited more frequently. The software allows to include data on other Transboundary animal diseases (TADs) (LSD, PPR, and SGP) providing the opportunity for future applications and modeling for confidence of freedom for these diseases.

The national consultants regularly provided surveillance data on FMD, LSD, SGP, and PPR in all three countries. The data are regularly entered into the database in all the countries. This system is now standardized and only minor discrepancies are sometimes identified between the direct reporting from the consultants and the data uploaded on the database. Although these do not affect the outputs of the modeling and the confidence in FMD freedom, these discrepancies, and any other issue relating to the real-time data entry system, are regularly communicated and discussed during the Management meetings.

Output 1.3.3. Implement activities in each country for FMD risk-based surveillance (and other diseases as decided by Coordination Framework); in 2017-19 with the expected result of providing evidence for freedom from FMD, PPR and LSD in European Turkey and the neighbouring countries

1.3.3.1 Regular analysis of the active surveillance carried out for FMD and other TADs and reports of such activities shared between countries and institutions

The confidence in FMD freedom in the Thrace region was constantly above 95% for both the 4th cycle of 2017 and the first two months of 2018. The data on clinical and laboratory surveillance for the SGP and PPR were also provided. The cycle reports have been sent to the NFP for approval and will be presented and discussed at the upcoming Management meeting (tentative March 2018).

1.3.3.2 Provision of evidence on effectiveness of FMD and other TADs vaccination (if relevant) in the Thrace region, building on the outcomes of 2015-2017

Following the FMD post-vaccination immunity study carried out in Turkish Thrace in 2017, a new study on post vaccination serology should be carried out in 2018 to validate the previous results. A study on vaccine effectiveness in Turkish Anatolia, outside the Thrace region, is also under development and it is planned to be carried out in 2018.

1.3.3.3 Assessing and improving regular farmer reporting (passive surveillance) for FMD and other TADs in the Thrace region

A training workshop has been designed and developed by EuFMD (**1st Disease Reporting Training of the EuFMD: How to evaluate FMD reporting in Thrace?**), and will be carried out in Svilengrad, Bulgaria on the 13-16 March 2018. This workshop will review the current disease reporting systems in the Thrace region, identifying major gaps and barriers in the system, and simultaneously provide training for official veterinarians from the three countries, and operating in the region, in conducting formal assessments of the disease reporting systems to inform future interventions.

1.3.3.4 Activities to improve farmer reporting in the Thrace region

The workshop conducted in Bulgaria in March 2018 will provide an initial baseline assessment of the status of disease reporting in the region, identifying its current major gaps and barriers, for informing the discussion of the conceiving and design of further initiatives during the Biennium 2017-19.

Output 1.3.4. Improved capacity to respond to exotic disease incursions in to the common border region, through participation in joint exercises and development of harmonized levels of contingency planning.

1.3.4.1 Regular support for laboratory (reagents and trainings) on FMD and other TADs.

The procurement of diagnostic and sampling materials is managed regularly between NFPs and EuFMD. The diagnostic kits are currently procured centrally by EuFMD in coordination with the NFPs and national PSAs. The field and laboratory consumables are, conversely, being directly procured within each country by the national PSAs.

1.3.4.2. Organization of joint trainings and/or exercises to improve and assess the emergency preparedness in Thrace region and strengthen the coordination between countries in case of an emergency

The Workshop “THRACE foot and mouth disease (FMD) Training and Exercise” was carried out in Erzurum (Turkey), 3-6 July 2017, to improve the preparedness of the veterinary services in the Thrace region in the event of detection of a suspected incursion of an exotic livestock infectious disease, notably FMD and PPR. The outcomes and recommendations following this workshop, highlighted the need to improve understanding of disease reporting in the Thrace region and identify major current gaps and barriers. A joint workshop has been designed and organized following these recommendations, with the aim of assessing the disease reporting system in the region and train official veterinarians in conducting field surveys and data collection (1st Disease Reporting Training of the EuFMD: “How to evaluate FMD reporting in Thrace?” - Svilengrad, Bulgaria on the 13-16 March 2018).

5 - Issues for Executive Committee attention arising during implementation

The result-based approach of EuFMD component 1.3 is ensured by the ongoing active surveillance programme in the three countries. Although the active surveillance expenditure in the first biennium was higher than originally anticipated during the planning of PHASE IV under the consultancy budget line, adjustments were implemented to ensure that the active surveillance activities can continue overall till September 2019. Nevertheless, the planning during the second biennium of PHASE IV is increasing the focus also on the disease reporting systems for FMD and other TADs. This, in practice, is starting with an evaluation and training workshop in March 2018, which will provide an initial assessment of the status of disease reporting in the region for informing the discussion of the conceiving and design of further initiatives to reduce potential gaps and barriers.

6 - Priorities for the next six months

Outcome 1.3.1:

- 1.3.1.1 To organize and hold the next Management meeting in spring 2018.
The current THRACE active surveillance is ensured to be continued in the three countries up until September 2019;
- 1.3.1.2 To continue the on-going co-operation and updating on the FMD situation in Thrace (including preventive and control measures and information of the passive surveillance in the countries).
- 1.3.1.3 To draw recommendations based on the outcomes of the workshop on disease reporting in the region held in March 2018 and discuss at the next Tripartite Meeting in summer 2018.

Outcome 1.3.2:

- 1.3.2.1 To continue use the online platform, develop and implement system of backups, and improve the Operational Manual if needed. Explore possibilities for improving data management and spatial visualizations.

Outcome 1.3.3:

- 1.3.3.1 To produce and circulate on quarterly basis the relevant cycle reports for 2018 using data regularly uploaded in the online platform.
- 1.3.3.2 To support a new study on post vaccination serology should be carried out in 2018 to validate the previous results, and the design and implementation of a study on vaccine effectiveness in Turkish Anatolia, outside the Trace region, to be carried out in 2018.
- 1.3.3.3 To conduct the 1st Disease Reporting Training of the EuFMD in March 2018 (Bulgaria) and, based on the outcomes, discuss at the next Tripartite Meeting (Summer 2018) the outcomes to identify possible follow-up activities for formal assessment of disease reporting and/or for targeting potential gaps.
- 1.3.3.4 Based on the outcomes of the workshop conducted in March 2018 possible options for intervention will be discussed for prioritization.

Outcome 1.3.4:

- 1.3.4.1 To continue to procure necessary laboratory and field material and consumables for the surveillance activities according to the direct procurement started in June 2017. Laboratory diagnostics are continuing to be procured by EuFMD in coordination with the NFPs.
- 1.3.4.2 Follow the FMD wildlife leaflet translations in the three countries. Based on the outcomes of the 1st Disease Reporting Training of the EuFMD in March 2018 assess if joint simulation exercise for the three countries would be beneficial to support outcomes 1.3.3.3 and 1.3.4, if support from the countries and funds are available.

7 - Success stories and future emphasis

The second Tripartite Meeting of the IV Phase was held in October 2017 in Dublin (Ireland) with the participation of representatives of Turkey, Bulgaria, Greece (including the CVO), OIE, FAO, EC, EuFMD and EC. The EuFMD Workplan 2017-19 for Component 1.3 THRACE was presented and discussed to identify priorities and key activities. One key highlight focused on providing evidence on the level of passive surveillance in the region. Following these recommendations, the 1st Disease Reporting Training of the EuFMD has been developed and will be held in Bulgaria 13-16 March 2018. This training and elicitation workshop will serve the double purpose of providing an initial evaluation of the status of the FMD reporting system in the region, and of training official veterinarians from the three countries in principles of field investigations for survey implementation and in communication techniques. Based on the outcomes of this workshop, and on the expected follow-up activities from the three countries, future interventions will be assessed and jointly discussed in the next Tripartite Meeting in summer 2018. The post vaccination serology study should also be repeated in Turkish Thrace during 2018, to validate the results and outcomes from 2017.

8 - Budget (€)

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
377,000	60,594	3,000	16.8%	313,406

9-Gantt charts - Planned activities

1.3 Thrace	OUTPUT 1.3 Improved surveillance and management of FMD and other exotic diseases in the Thrace region of Greece, Bulgaria and Turkey		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	1.3.1 Maintain the coord framework for surveillance for FMD freedom in Thrace	1.3.1.1 Co-ordination framework between VS & labs of the 3 countries maintained and improved through tripartite, mgt and technical meetings	M					M						M						M						M
		1.3.1.2 Regular assessment of FMD risk present in Thrace, and of preventive & control measures implemented in the area																								
		1.3.1.3 Continuation of a system for regular active and passive surveillance of presence and absence of FMD and other TADs																								
	1.3.2 Maintain and improve a system for real-time data entry to support mgt of nat surv activities aimed at maintain DF confidence	1.3.2.1 System for real-time data entry maintained																								
	1.3.3. Implement activities in each country for FMD (and other diseases as decided by Coordination Framework); in 2015-17 with the expected result of providing evidence for freedom from FMD, PPR and LSD in European Turkey and the neighbouring countries	1.3.3.1 Regular analysis of the active surveillance carried out for FMD and other TADs and reports of such activities shared between countries and institutions.																								
		1.3.3.2 Provision of evidence on effectiveness of FMD and other TADs vaccination in the Thrace region.																								
		1.3.3.3 Assessing and improving regular farmer reporting (passive surveillance) for FMD and other TADs in Thrace region						W S						G T P	GT P											

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 – March 2018

Component 1.4 – *Balkans*



Pillar Manager: M.Hovari
Component Manager: -
Reporting: M. Hovari
Focal point Executive Ctte:

1.4 BALKANS

1. Objective of the component

The objective of component is to improve emergency management capacity for FMD in the Balkan region.

The targets (expected results) are:

1. Confidence in the coordination framework for western Balkan countries as a tool to ensure the continuous development, testing and improvement of national emergency management plans, and to ensure sufficient FMD laboratory capacity for crises;
2. Contingency plans for FMD agreed at national level and tested through at least one exercise. Contingency plans comply with EU legislation;
3. Integration of national FMD reference centers (laboratories) in the national CPs and establishment of a system of immediate regional diagnostic support for an FMD crisis.

Activities	Indicators	Baseline: Sept 2017	Target 2 years	Unit of measure	Current Status
1.4.1	Management and High Level Policy Meetings held compared to if project was not supported.	0	3	Number of meetings	1
1.4.2	Number of countries having a national or multi-country FMD simulation exercise	4	7	Number of countries having a national FMD exercise	4*
1.4.3	Participation in Balkan region proficiency test exercises	6	8	Number of National participations in exercises in 24 months	6

- On-line Greek national SimEx, July 2017

2. Project team

Role	Name	Status
Pillar Manager	Mark Hovari	Contingency Planning Officer
Component manager	Vacant	Short Term Placement
Expert Support	Mirzet Sabirovic(Sept – Nov 2017)	Consultant
National focal points:		
Albania	Veli Stafa	Veterinary Specialist
Bosnia and Herzegovina	Zorana Mehmedbasic	Head of Dept for Animal Health & Welfare
F.Y.R of Macedonia	Biljana Strojmanovska	
Kosovo	Bahti Murati	
Montenegro	Mevlida Hrapovic	
Serbia	Budimir Plavsic	Head of Animal Health Dept
Bulgaria	Tsviatko Alexandrov	Member SCRD, Head of Animal Health Dept
Romania	Ioana Alexandra Neghirla	Head,AHCD Service Nat. Sanitary Vet &FSA
Croatia	Martina Rubin	
Moldova	Maxim Sirbu	
Ukraine		
Greece		
Turkey		
Laboratory network coord.	Vesna Milicevic	Head of Serbian FMD NRL
ExCom oversight		

3. Countries or partner organizations involved

- EuFMD member states directly involved: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Serbia, FYR of Macedonia and Romania;
- Non EuFMD member states directly involved: Kosovo, Montenegro, Moldova and Ukraine (as per 42nd EuFMD General Session);
- Greece and Turkey are beneficiaries and supported under Component 1.3 THRACE.

4-Progress Report

Output 1.4.1. Confidence in the coordination framework for western Balkan countries as a tool to ensure the continuous development, testing and improvement of national emergency management plans, and to ensure sufficient FMD laboratory capacity for crises.

Activities

1.4.1.1 System of mutual assistance and coordination between countries implemented (networking – diagnostic support – expertise)

Work on drafting a Statement of Intentions (SoI) which aims to establish a cooperation in the Balkan region and beyond for increased emergency management capacities through knowledge exchange and mutual resource sharing for Foot and Mouth Disease and other priority TADs was started, but it is not ready to be circulated.

1.4.1.2. Co-ordination framework between veterinary services of the region maintained and improved through high level policy and management meetings

An on-line management meeting was held in October 2017 to introduce the National Focal Points to the 2017-2019 Workplan, agree on the topic of the first workshop and select the pilot countries for the GET Prepared pathway (see below).

1.4.2. Contingency plans for FMD agreed at national level and tested through at least one exercise. Contingency plans comply with EU legislation.

Activities

1.4.2.1 Workshops/trainings held to address specific themes of emergency management

Only preparatory work (defining main topics and drafting Term of Reference) was done for an upcoming workshop.

1.4.2.2 GET Prepared and simulation exercises

The aim of the Exercise and Training (GET) prepared pathway is to lay out a path where smaller exercises and training will lead up to designing and delivering more complex simulation exercises, with the final goal of improving a specific aspect of the overall emergency preparedness at national and regional level. Three countries applied to pilot the GET Prepared pathway: Bulgaria, Serbia and F.Y.R. of Macedonia

1.4.2.3. Veterinary Services and veterinary Faculty partnerships

As a pilot program the component has opened up STP positions not only for official veterinarians, but also for university staff. A selection for a new STP was conducted and a suitable candidate from a university was selected in end of 2017. Unfortunately the contract was not signed by the candidate at the last minute. Shortlisted and alternative candidate are being contacted in order to fill the current vacancy as soon as possible.

Output 1.4.3 Integration of national FMD reference centers (laboratories) in the national CPs and establishment of a system of immediate regional diagnostic support for an FMD crisis.

No progress was made in the past six months.

5-Issues for Executive Committee attention arising during implementation

Although actions were taken (such as planning and recruitment) no progress was made to better understand and to improve the emergency preparedness levels of the Western Balkan countries.

6-Priorities for the next six months

Outcome 1.4.1: Confidence in the coordination framework for western Balkan countries as a tool to ensure the continuous development, testing and improvement of national emergency management plans, and to ensure sufficient FMD laboratory capacity for crises

- Maintain contact with the National Focal Points (NFPs)
- Finalize the Sol (statement of intentions) and organize a management meeting for NFPs

Outcome 1.4.2: Contingency plans for FMD agreed at national level and tested through at least one exercise. Contingency plans comply with EU legislation.

- Conduct in country missions for the GET Prepared
- Organize a workshop mid-April in Ohrid on the topic of Risk analysis – disease prioritization and GET Prepared

Outcome 1.4.3: Integration of national FMD reference centers (laboratories) in the national CPs and establishment of a system of immediate regional diagnostic support for an FMD crisis

- Follow up with the outcome of the 2018 PTS
- Explore the possibilities for laboratory training and integration into the GET Prepared pathway

7 - Success stories and future emphasis

The emphasis of the component, until the end of the phase IV will be to deliver the GET Prepared pathway to the three pilot countries and disseminate the experience to the other member states in this component.

8. Budget (€)

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
202,110	1,970	8,750	5%	191,390

9-Gantt charts - Planned activities

1.4 Balkans	OUTPUT: Increased confidence in the national capacities of countries in the Balkan region to manage at national and subregional level an FMD emergency		YEAR 1													YEAR 2												
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		
	1.4.1 Activities to maintain and improve the coordination framework for western Balkan countries as a tool to ensure the continuous development, testing & improvement of nat. emergency mgt. plans and to ensure sufficient FMD laboratory capacity for crises	1.4.1.1 System of mutual assistance and coordination between countries implemented (networking – diagnostic support – expertise)	P	P	P	P	P	P																				
1.4.1.2. Co-ordination framework between veterinary services of the region maintained and improved through high level policy and management meetings		O M							M M		M							M					M					
1.4.2 Improve quality and completeness of Contingency plans for FMD agreed at national level and test these through at least one exercise	1.4.2.1 Workshops/trainings held to address specific themes of emergency management							W S																				
	1.4.2.2 GET Prepared and simulation exercises																											
	1.4.2.3. Veterinary Services and veterinary Faculty partnerships																											
1.4.3 Activities to improve preparedness of national FMD reference centers (laboratories) and establishment of a system immediate regional diagnostic support for an FMD crisis	1.4.3.1 Procurement of lab reagents/kits to support a minimum diagnostic capacity and enable participation in PTS														LS													
	1.4.3.2 Lab training w/s within Balkans through inter-lab partnership												P	EL WS														

EuFMD Phase IV

Report to the EuFMD Executive

Component 1.5 -

FAR - Fund for Applied Research

October 2017 - March 2018



1.5 – EuFMD Fund for Applied Research (EuFMD-FAR)

1-Objective of component

Guidance of EC institutions involved in decisions on Research Funding. This includes support for research projects which have been endorsed by the EuFMD STC as being a benefit of the EuFMD objectives: activities to translate research into tools, actions or activities which are of benefit to EuFMD activities: and actions to integrate research outcomes with policy.

Summary

In 2017, the EuFMD, issued three (3) Calls for small applied research projects, of which one (1) in the semester between October 2017 and March 2018. These Calls are relevant to technical issues seen as priorities of the EuFMD member states under the specific Research fund (Fund for Applied Research - EuFMD-FAR) adopted as a component (1.5) of the EC funded Workplan of the Commission:

- I. *4th EuFMD-FAR in February 2017*: twelve (12) project proposals were in-line with the priorities of the call and submitted for review, four (4) were selected for funding.
- II. *5th EuFMD-FAR in July 2017*: three (3) project proposals were selected as in-line with the priorities of the call and submitted for review, one (1) were selected for funding.
- III. *6th EuFMD-FAR in December 2017*: one (1) project proposals were selected as in-line with the priorities of the call and submitted for review, one (1) were selected for funding.

2-Project team

Role	Name	Status
Pillar Manager	M.Hovari	Contingency Planning Officer
Component manager	P. Motta	Secretariat
Standing Technical Committee	E. Ryan, Chairman	
Special Committee for Research:	18 persons acting as experts for the first round technical reviews reviewers	
Focal Point Executive Cttee	C. Bruschke	

3-Countries or partner organizations involved

The STC and SCRPD Committees are the main partners involved.

4-Progress Report

I. 4th EuFMD-FAR (issued February 2017)

1) European multi-country FMD Spread model (EuFMDiS) - Project Lead Applicant: Dr Graeme Garner

Signed: 18 October 2017/Duration: 18 months

Overview of project:

This proposal aimed at modifying and developing the Australian Animal Disease model (AADIS) as a training tool to support FMD planning and response, for use by European Union Member States to improve the capability of evaluating vaccination policy, resource management, post outbreak surveillance and management of vaccinated populations. Software modifications and updates are required to adapt the AADIS model to simulate FMD spread and control in European context. The EuFMD, the AADIS team and interested Central European EU States are working together to incorporate representative input data (e.g. livestock populations, farm types and distributions, weather data and animal movement data) to parameterize FMD spread and control.

Overall cost: € 48 600.00

Status update:

The project has received a very positive response from seven countries (Austria, Bulgaria, Croatia, Italy, Hungary, Romania and Slovenia). An initial workshop to get the project underway was held on 5-7 December 2017, in Vienna, Austria, to bring the participating countries together to discuss the scope of a multi-country European disease spread model, and to identify the country-specific data required and agree on project time frames, and deliverables. A dedicated e-learning page was developed, for project partners, to provide a discussion forum and a depository to share resources. On-line meetings are held at regular intervals to share progress and to discuss upcoming milestone or relevant issues.

The project is on-track to deliver a working model that will simulate spread and control of FMD within and between the participating central European countries by 30 June 2018. A report on the workshop held 2-4 December 2017, including a detailed work plan, will be annexed to the 95th ExCom Report.

Issues/delays: none

2) Validating the use of bulk tank milk for surveillance of FMD among commercial dairy farms in endemic settings - Project Lead Applicant: Dr Nicholas Lyons, The Pirbright Institute

LoA Signed: 20 July 2017/Duration: 12 months

Overview of project:

This proposal aimed at evaluating the use of bulk-milk as a prospective, integrated surveillance tool for infection among large-scale commercial farms in the endemic settings of Iran and Kenya. In Iran, in collaboration with the Iranian Veterinary Services (IVO), samples and information are being collected from 20 dairy farms in an animal complex in the Tehran Province (samples collected every 2 weeks for 6 months, followed by NSP-testing of young stock at the end of the 6 month period). Samples, induplicate, will be tested for tested by rRT-PCR, NSP ELISA and VNT (if sufficient RNA sequence analysis will be performed) at The Pirbright Institute (UK) and the FMD laboratory in Tehran. The observations in the milk will be correlated to reports on clinical disease and the NSP seropositivity at the herd level. In Kenya samples have been collected from 5 dairy co-operatives and one large scale dairy farm (collection ended November 2017). Samples are shipped to The Pirbright Institute (TPI) (UK) and will be coupled with data on the incidence of clinical disease and the levels of virus detected in the pooled milk.

Overall cost: € 48 881.00

Status update:

Iran: a mission to Iran by researchers at TPI in coordination with collaborators within the Iranian Veterinary Organization (IVO) and the Central Veterinary Laboratory (CVL) was undertaken in October 2017. During the mission the study site was visited, and the study design developed based on discussion with farmers, complex managers and staff at IVO. The capacity of the CVL in performing diagnostic tests was assessed and training requirements identified. The sampling is started in mid-February and the first sample shipment is scheduled in mid-May and the final at the end of the project.

Kenya: milk samples have been collected (by November 2017) and the duplicates shipped to TPI in December 2017. A training session was held in Embakasi FMD laboratory, Nairobi, (27-29th September 2017) for the detection of FMD viral genome from pooled milk samples using the pan serotypic rRT-PCR from pooled milk samples.

Issues: Any issues with the project development are highlighted. Minor technical issues at the Embakasi laboratory were identified during the mission in September 2017 (e.g. cross-contamination issues).

- 3) *Evaluation in field conditions of a safe and cost-effective protocol for shipment of samples from Foot-and-Mouth Disease suspected cases for laboratory diagnostic (FIELD EVAL INACT)* – Dr Sandra Blaise-Boisseau, French Agency for Food, Environmental and Occupational Health & Safety (ANSES)

LoA Signed: 18 October 2017/Duration: 18 months

Overview of project:

The aim of this project is to evaluate/validate, in real situation under field conditions, the performance and safety of a protocol for improving the cost-effectiveness of FMD samples shipment, based on the inactivation of FMDV on the Lateral Flow Device (LFD). Samples are currently being collected on the field using LFDs in Turkey, Nigeria and Pakistan. LFDs will be processed for viral isolation in national laboratory (NVRI in Nigeria, SAP in Turkey and UM in Pakistan) and submitted to the French Agency for Food, Environmental and Occupational Health & Safety (ANSES), for viral isolation, genome detection, typing and virus rescue after transfection. Test of FMDV detection protocol from inactivated LFDs will be carried out by Merial. In addition, the impact of temperature and storage conditions of the inactivated LFD on the FMDV detection ability will also be tested (ANSES).

Overall cost: € 75 940.00

Status update:

The collection of epithelium and/or vesicular fluid samples from clinical cases (at least 20 samples) is currently being carried out by the national partners in Nigeria, Turkey and Pakistan under the supervision of the leading Institutions (ANSES). The field study started in December 2017 and is due to end in June 2018.

Issues: No issues were reported with the implementation and development of the project at this stage.

- 4) Validating multiplex real-time RT-PCR as a tool for FMD detection in bulk tank milk (Acronym: Tank Milk Multiplex) – Dr. Michael Eschbaumer, The Friedrich-Loeffler Institut (FLI)

LoA Signed: 26 January 2018/Duration: 6 months

Overview of project:

This project is aiming at providing a proof of concept by developing a tool for milk screening, testing the application of multiplex RT-PCR for foot and mouth disease virus (FMDV) for the viral detection in bulk-milk sample. The 1st stage of the project consist of a laboratory validation of modified multiplex RT-qPCR assay with spiked milk obtained from a commercial source in Germany. Batches of milk will be spiked with defined amounts of culture-grown field strains of FMDV covering a range of serotypes and epidemiological pools.

The 2nd stage of the project will aim at evaluating the performance of multiplex RT-qPCR with field samples from an endemic region. Milk samples from endemic countries will be sourced from an external provider (The Pirbright Institute).

Overall cost: € 23 715.23

Status update:

The project has just started at the end of January 2018.

Issues: the delay in the signature (about 2 months) was related to minor administrative issues between FLI and the FAO but did not have major impacts on the overall project schedule.

II. 5th EuFMD-FAR (issued July 2017)

- 1) FMD RiskmapS (FMD Risk map surveillance system): Development of a FMD surveillance program on risk information and mapping tools for southern European neighbourhood, integrating movement patterns of domestic livestock - Project Lead Applicant: Dr Thierry Lefrancois, French Agricultural Research Centre for International Development (CIRAD),

Signed*: by the end of February 2018/Duration: 18 months

Overview of project:

The main goal of this project is to reinforce national capacities and to assist the veterinary services of countries in North and West Africa to prevent the introduction and spread of transboundary animal diseases (TADs) and to detect new outbreaks with risk-based surveillance systems. As part of the project, these activities are planned to be potentially extended to European neighborhood South countries (Egypt, Libya and Sudan) in 2019, to promote a regional approach. An innovative method combining qualitative risk analysis with its geographical representation will be applied to disease risk mapping of TADs, integrating domestic livestock movements to better identify high risk areas, and provide decision makers with indicators to target surveillance and control actions

The method propose to improve the capacity to identify risks and risk areas for TADs and progressively train the national veterinary services for collecting, handling, analyzing and mapping livestock flows to identify the associated risks. A special attention is dedicated to information technology for data collection in the field as well as, tools for handling geospatial information, data visualization and risk assessment. A specific emphasis is given to the production of maps, as an essential tool for scientific communication between animal health stakeholders.

The services that will be provided include, the analysis of information collected by countries on market prices, animal movements between countries, the development of a specific web platform, and the assistance in the design of risk based surveillance system in high risk areas, particularly of Morocco, Algeria and Tunisia to improve confidence to

detect FMD incursion at an early stage. Additionally, the SP will adapt the EuFMD training material according to the context of the beneficiary countries of North, Central and West Africa and deliver the EuFMD e-learning course on FMD socio-economic impact assessment. Finally, the SP will review the FMD vaccine-uptake potential and other FMD control options over the next 20 years in West and Central Africa.

Overall cost: € 168 000.00

Status update:

The first activity under this project will be a workshop that will take place in Tunis (Tunisia) (27 February- 1 March 2018) on surveillance for early detection and confidence of freedom in Algeria, Morocco and Tunisia ("*Fièvre aphteuse, la détection précoce et la confiance en l'absence de circulation virale : Algérie, Maroc et Tunisie*").

Issues/delays: none.

III. 6th EuFMD-FAR (issued December 2017)

- 1) A pilot project for the evaluation of a system for engaging para-veterinarians and animal health workers for FMD surveillance and sample collection and for the preliminary assessment of the demand for FMD control services in Mali - Project Lead Applicant: Dr Abdoulaye Diaoure, Vétérinaires Sans Frontières Suisse (VSF-Suisse)

Signed*: by the end of February 2018/Duration: 18 months

Overview of project:

The project aims at developing a pilot study to assess the feasibility of engaging para-veterinarians, private animal health service providers or other non-state actors in Mali for FMD sample collection and submission to the national laboratories/authorities and international reference laboratories. Training will be provided to these non-state actors on case detection, sample collection and management (particularly using rapid diagnostic test) to improve their capacity and effective engagement in FMD surveillance in Mali. The project will also provide an evaluation of the potential for this system to be exported and adapted to other countries in West and Central Africa and the potential for FMD vaccine-uptake potential and other FMD control options in Mali.

Overall cost: € 20 000.00 (*although the project proposal has been received though a FAR Call the funds will be mobilized under Component 3.3.2).

Status update: the project is expected to start by the end of March 2018

Issues/delays: -

Budget

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
372'387	107'492	190'353	51%	182'203

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 1.6 - Emergency technical responses



NO UPDATE

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 1.7 - *Proficiency Testing Scheme*



1.7 Proficiency Testing Scheme

1-Objectives of component

The **overarching objective (output)** is Harmonized Proficiency Testing Service for EU and non-EU Members in the European neighbourhood.

The **activities (expected results)** are:

1.7.1 Commission regional PT for better national alignment of the NRLs in the European neighbourhood to the EuFMD and EU standard for FMD diagnostic NRLs performance

1.7.2 Promote and support the participation of 20 non EU EuFMD member states and neighbourhood countries in annual PTS

<i>Activities</i>	<i>Indicators</i>	<i>Baseline Sept 2017</i>	<i>Target 2 years</i>	<i>Unit of measure</i>	<i>Current Status</i>
1.7	Proportion of target reference laboratories participating	16	21	Number participating over total of neighborhood countries indicated in contract with service provider	16

2-Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	M.Hovari	Contingency Planning Officer
Component manager	K. van Maanen (until Nov.17)	FMD Risk Management Support Officer
Partner organization	The Pirbright Institute (TPI)	Contracted through a Letter of Agreement
ExCom oversight	C.Bruschke	Executive Committee (Netherlands)

3-Countries or partner organizations involved

The **direct beneficiaries** of this component are the 9 EuFMD MS and 15 neighborhood countries who are supported to undergo laboratory proficiency testing (see table below).

The **Pirbright Institute** is contracted to carry out this proficiency testing through a Letter of Agreement (LOA).

The 24 laboratories to be included in the PTS under this section of the agreement are:

EuFMD MS not in the EU	European neighborhood states:
Serbia; Albania; FYRO Macedonia; Bosnia; Turkey Georgia; Switzerland; Norway; Israel	Kosovo; Montenegro; Armenia; Azerbaijan; Ukraine Belarus; Moldova; Iran; Egypt; Lebanon; Libya; Morocco; Tunisia; Algeria; Iraq

The results of the annual Proficiency Test 2015 and 2016 are presented in the table below (courtesy Don King and Anna Ludi, TPI). PT results are scored according to criteria agreed by the NRLs within Europe, each laboratory receives a personalized anonymous feedback letter to highlight areas in which they could improve, and performance of each laboratory is broadly categorized into one of four groups: (Category 1) to emphasize critical issues where immediate action is required that impact upon the laboratory to correctly identify FMD virus (virology tests) or FMDV infected animals (serological tests), (Category 2) laboratories with serious issues with the performance of individual tests that need to be addressed, (Category 3) to record additional observations which may need to be considered by the laboratory to improve the local performance of individual tests and (Category 4) laboratories whose tests which are fit for purpose and where no further action is required.

For the 2015 participating EuFMD (non EU) and European neighborhood labs (altogether n=16), none of the labs was in category 1 or 2, so none of the labs had critical or serious issues with individual tests. For the European neighborhood countries that participated in 2015, the proportion of labs in categories 3 and 4 was 63% and 38%, respectively. This was a positive development as compared with 2014 (83% and 17%, respectively).

In the PT 2016, there has been a change in emphasis from previous years, i.e. the PT has focused on 1) the laboratory's response to an outbreak within the country and 2) laboratory methods and analysis of results for quality assurance purpose. Three panels were available: Panel 1 –Outbreak scenarios for vesicular diseases (including FMD and SVD); Panel 2 –Quality Assurance Panel FMDV samples; Panel 3 –Continuation of outbreak scenarios of FMD and SVD. In total 17 out of 24 invited EuFMD non-EU or European neighborhood countries participated in the 2016 PTS (Israel, Ukraine, Belarus, Bosnia & Herzegovina, Egypt, Iraq, Kosovo and Libya did not participate).

During the 2017 annual workshop of EU national reference laboratories for foot-and-mouth disease and swine vesicular disease, 9 – 10 May 2017, Horseley, UK, the results and conclusions of the Proficiency Testing Scheme (PTS) 2016 were presented. Altogether 65 countries participated in 2016. The EU NRLs performed well, all scored in category 3 and 4. It was also checked which labs were ISO 17025 accredited for which tests. For NSP tests this was for example only true for 12/27 EU NRLs. Overall, the results for virological tests and NSP antibody tests were very satisfactory, whereas some more problems were encountered with the interpretation (and cross-reactivity) of SP antibody tests.

On a related subject, the results of a PTS in the Balkan countries were presented, this work was carried out under component 1.4 of the EuFMD work program in collaboration with IZSLER, Brescia and with ANSES for the PCR reagents. Despite many positive observations still several concerns remain regarding sustainability, import problems, and operationality of test capacity.

Fig.1 Results of the annual Proficiency Test 2015 and 2016

	2015	2016
Total invited laboratories ¹	91	94
Total number of shipments ¹	66	70
Participants from European Union (funded by EURL for FMD)	27 (EU member states)	28 (EU member states)
% of labs meeting target performance ⁴	Cat-1 0 % Cat-2 0 % Cat-3 67 % Cat-4 33 %	Cat-1 0 % Cat-2 0 % Cat-3 60.71 % Cat-4 39.29 %
EUFMD funded participants		
Participants from Global Network Labs ²	Panaftosa Brazil, Pakchong Thailand, BVI Botswana, OVI South Africa, ARRIAH Russia, NVRI Nigeria, LNERV Senegal, Emabakasi FMD laboratory Kenya, NAHDIC Ethiopia, USDA USA ³	BVI Botswana, Brazil, China, Ethiopia, Kenya, Nepal, Nigeria, Russia, South Africa, Thailand.
% of labs meeting target performance ⁴	Cat-1 0 % Cat-2 10 % Cat-3 60 % Cat-4 30 %	Cat-1 0 % Cat-2 0 % Cat-3 60 % Cat-4 40 %
Participants from EuFMD Member states (non-EU)	Serbia, Albania, FYRO Macedonia, Turkey, Georgia, Switzerland, Norway, Israel	Albania, Georgia, Macedonia, Norway, Serbia, Switzerland, Turkey
% of labs meeting target performance ⁴	Cat-1 0 % Cat-2 0 % Cat-3 88 % Cat-4 13 %	Cat-1 0 % Cat-2 0 % Cat-3 66.6 % Cat-4 33.3 %
Participants from neighbourhood countries	Montenegro, Armenia, Azerbaijan, Ukraine, Egypt, Lebanon, Morocco, Algeria	Algeria, Armenia, Azerbaijan, Iran, Lebanon, Moldova, Montenegro, Morocco, Tunisia
% of labs meeting target performance ⁴	Cat-1 0 % Cat-2 0 % Cat-3 63 % Cat-4 38 %	Cat-1 0 % Cat-2 0 % Cat-3 77.7 % Cat-4 22.2 %
Summary of EUFMD funded participants		
Invited		
Panels shipped	Panel 1 7 Panel 2 23 Panel 3 25 Panel 4 -	Panel 1 23 Panel 2 23 Panel 3 26 Panel 4 14
Total number of participants funded by EUFMD	26	26

¹ Additional countries participate in the PTS at their own expense (not funded via the EURL for FMD or EuFMD)

² Not including IZSLER and CODA-CERVA who participate as European NRLs

The impact of Brexit for future plans and maintenance of schemes that support EU NRLs were also briefly discussed and are also mentioned here in the context of the organization of the PTS by WRLFMD. In the FMD directive it is not explicitly written that the EU ref lab should be in one of the EU member states, but that was certainly the intention. If the UK becomes a third country there will be an end to the Pirbright lab as EU ref lab. This has nothing to do with the WRLFMD task. In 2018 the EURL meeting will still be organized as usual, but after that the situation may change. For about ten years (1996 – 2006 or so) there was no EURL, but it has been maintained since 2007 at the Pirbright Institute, and now awarded (with services starting in 2019) to ANSES/CODA-CERVA. Service contracts between NRLs and TPI also have to be reviewed. Eleven member states do have such a contract to handle live virus/ship samples etc. and should review these contracts. In summary, EURL in Pirbright will have an extension of the contract with one year, so also 2018. After that the PTS for EU NRLs and for third countries may be organized separately by EURL and WRLFMD. It seems preferable if there could be a joint PTS where the new EURL subcontracts the preparation of the panels for the EU to WRLFMD. UK will be expected to stay as a EuFMD member after Brexit.

4-Progress Report

Output 1.7.1 Commission regional PT for better national alignment of the NRLs in the European neighbourhood to the EuFMD and EU standard for FMD diagnostic NRLs performance

Activities

1.7.1.1: Negotiation of LOA with the Pirbright Institute and

1.7.1.2 Liaison with and review of reports from the Pirbright institute

Negotiation on the new LOA with the TPI are under way. Final reports of the previous LOA are to be received yet.

1.7.2.1: Pirbright manages annual proficiency testing

The summary results of the 2016 PTS are detailed above.

The results of the on-going 2017 PTS are expected to be available in May 2018.

1.7.3.1. The Pirbright Institute promotes and organizes participation in annual EU reference laboratory meeting for some of the countries listed under 1.7.2.1

No activity in this period. Previous EU reference laboratory meeting was held 9-10 May 2017, UK.

5-Issues for Executive Committee attention arising during implementation

No specific issues up to date.

6 - 7 Priorities for the next six months and future emphasis

- Finalize and implement the new LoA with TPI
- Acquire the results of the 2017 PTS
- Provide support in the 2018 PTS with laboratory contacts available with EuFMD.

8- Budget (€)

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
46,300	2,185	39,000	89%	5,115

9-Gantt charts - Planned activities

1.7 Prof. Testing Service	Emergency technical responses that assisted rapid management of FMD and/or other epidemiologically related exotic diseases outbreaks in the member state or the European neighbourhood		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	1.7.1 Commission regional proficiency tests for better national alignment of the NRLs in the European neighbourhood to the EuFMD and EU standard for FMD diagnostic NRLS performance	1.7.1.1 Negotiating contract for LOA TPI																								
		1.7.1.2 Liaison with and review of reports from the Pirbright institute																								
	1.7.2 Promote and support the Participation of 20 non-EU EuFMD member states and neighbourhood countries in annual PTS	1.7.2.1 TPI organizes participation in proficiency testing for reference laboratories (NRL) from Serbia, Albania, FYRO Macedonia, Bosnia, Turkey, Georgia, Switzerland, Norway, Israel, Kosovo, Montenegro, Armenia, Azerbaijan, Ukraine, Belarus, Moldova, Iran, Egypt, Lebanon, Libya, Morocco, Tunisia, Algeria, Iraq																								
	1.7.3 Management and participation in annual EU reference laboratory meetings	1.7.3.1. TPI organizes participation in annual EU reference laboratory meeting for the countries listed under 1.7.2.1																								

EuFMD Phase IV

Report to the EuFMD Executive

Period March 2017 - September 2017

Component 1.8 –

Risk Analysis and Communication



1.8– Risk Analysis and Communication

1 Objective(s) of component

The overall objective of this component is: to improve the quality, utility and availability of information gathered relevant to FMD risk of entry into member states and facilitate the use of this by risk managers.

OUTPUTS (EXPECTED RESULTS):

- System established and routinely operated to update and communicate the antigen bank priorities based on risk information gathered from Pillar 1 to 3 activities, and others;
- System established to ensure that changes in FMD incidence and FMDV circulating lineages/threats in the virus pools is communicated to surveillance managers;
- Tools for improving assessment of risk of entry and consequence of entry into EuFMD MS are improved and used to better identify specific areas for EU/EuFMD attention;
- System for gathering and assessing information on specific risk drivers, such as differential in meat prices between Europe and third countries, is developed and validated for at least one driver.

Activities	Indicators	Baseline: Sept. 2017	Target 2 years	Unit of measure	Current Status
1.8.1	System available to predict Antigen Prioritization	1	1	System available to predict Antigen Prioritization	1
1.8.2	Number of Global Monthly Reports	24	48	Number of Global Monthly Reports	30
1.8.3	Number of Risk Manager Summaries	0	4	Summaries published	0
1.8.4	Pilot study	1	1	Study completed	1*

2 - Project team

Role	Name	Status
Pillar Manager	Mark Hovari	Contingency Planning Officer
Component Manager	Melissa McLaws	EuFMD
EuFMD Monthly Reports	Maria-Teresa Scicluna	STP
National FAO Focal Point: (Co-ordination-national level)	FAO assistant representatives in countries of interest (TBC)	FAO Staff in national offices
FAO HQ Contact	Julio Pinto	Animal Health Officer (Animal Disease Emergencies and Early Warning)
National focal points	Naci Bulut (Turkey) TBC (other countries)	Consultant, SCRPD member
ExCom oversight	Lajos Bogнар	ExCom member

3 - Countries or partner organizations involved

- i. All EuFMD Member States are direct beneficiaries of this component, and in particular, this component will involve work with Turkey.
- ii. Non EuFMD Member States will also be involved, for instance for information gathering and WelNET: Iran, Pakistan.

4 - Progress Report

1.8.1 System established and routinely operated to update and communicate the antigen bank priorities based on risk information gathered Pillar 1 to 3 activities, and others.

Activities

1.8.1.1 Antigen prioritization tool (PRAGMATIST) is finalized and available to interested users

The Prioritization of Antigen Management with International Surveillance Tool (PRAGMATIST) has been developed in collaboration with the WRL to assist vaccine bank managers select which strains are most important to maintain in their vaccine bank. It is a spreadsheet model that considers 1) which strains pose the greatest threat of incursion and 2) ability of available vaccines to protect against the most important antigens are calculated for each vaccine. Draft outputs (tables and charts) from this tool have been produced to include in the Global Monthly Report.

1.8.1.2. System developed and applied for regularly updating both the global distribution of virus strains and the vaccine matching results to inform PRAGMATIST

In this reporting period, a more user-friendly version of the tool has been developed. WRL took the lead in this second version, with review and input from EuFMD. The tool was presented at the OIE/FAO Reference Laboratory meeting in Pretoria in December 2017. Experts present at the meeting reviewed the data, and we are currently working on updating the tool with more current data. In general, the WRL will maintain the vaccine matching data and EuFMD will monitor the global prevalence data in conjunction with activities in 1.8.2. The EuFMD is also working with WRL on ensuring that the uncertainty inherent in the data is appropriately represented and communicated to users.

1.8.2.3. Format for communicating PRAGMATIST outputs to end-users (vaccine bank managers in free and endemic countries)

Upon request of Australian, PRAGMATIST has been shared to trial as part of their vaccine bank selection process.

1.8.2 System established to ensure that changes in FMD incidence and FMDV circulating lineages/threats in the virus pools is communicated to surveillance managers:

Activities

1.8.2.1 Global Monthly Reports are issued and format is improved

The report continues to be produced on monthly basis by Dr Maria-Teresa Scicluna. Different information sources are used, including OIE WAHID, FAO World/Regional/National Reference Laboratories for FMD and FAO Global Animal Disease Information System data basis, also FAO/EuFMD supported FMD network and FAO/EuFMD projects and field officers information. The report takes an overview on the changes of FMD virus strain distribution within the different pools, to highlight the differences in the FMD movement and to allow an overview evaluation of the

effectiveness of the FMD control and eradication adopted in the countries. A ready to print version distributed through EuFMD.

In this reporting period, a questionnaire survey was sent out for feedback on the report from the readership. The results from the survey are being used to update the format of the report. We are revising the format to include:

- A quarterly newsletter on Risk Highlights, potentially in collaboration with WRL
- Continuously updated data in the form of graphs and tables for an immediate view of the relative distribution of the most recent various FMD serotypes/viral lineages at Pool and country level.
- A forecast of expected changes in relative prevalence of serotypes at country level

We plan to accomplish these changes with the input of experts from the Reference Laboratories and Progressive Control Practitioners globally. Collection of information will be coordinated by global focal points that will be recruited and trained in the next reporting period.

1.8.2.2 A quarterly summary for Risk Managers is produced on the basis of the information collected under 1.8.1.1 and 1.8.3.1. and is issued at every quarterly GMR

No progress on the quarterly summary was made as 1.8.2.3. was not established.

1.8.2.3 Network of Global Focal Points

Plans have been made to establish a global network of FMD experts, selected from the different FMD pools that will routinely provide data for the constant update of the PRAGMATIST.

A draft call has been prepared and the possible funding was assessed.

1.8.3. Tools for improving assessment of risk of entry and consequence of entry into EuFMD MS are improved and issued to better identify specific areas for EU/EuFMD attention

Planning to improve collection and reporting of field data is underway but is dependent on the outcomes of 1.8.2.

1.8.4 System for gathering and assessing information on specific risk drivers, such as differential meat prices between Europe and third countries, is developed and validated for at least one driver:

Activities

1.8.4.1 Identify and review and descriptive analysis of historical data on livestock and meat prices differential and FMD incidence in Europe and 1 or 2 selected regions ("West-Eurasia", South/East Asia, North-Africa)

No activities have been carried out.

1.8.4.2 Identification of data sources (meat price and animal movements) for the selected regions in Europe and the European neighbourhood ("West-Eurasia", North-Africa); identification of partners for other regions (West/Central Africa, South/East Asia)

Support is currently provided to the Veterinary Authorities of single countries in the European neighborhood to gather information directly on livestock mobility (e.g. State of Libya) or on economic drivers for livestock trade-related movements, like prices of livestock and animal products (meat) (e.g. Turkey).

A Letter of Agreement (LoA) has been designed with an external Service Provider (CIRAD) to build a partnership for the development and implementation of risk mapping system in North and West Africa for the duration of the current biennium (2018-2019). This partnership, developed mainly under Component 2.3, is aiming at building potential for sustainability of a system for collecting movements and price data over time. For further details, please refer to Component 2.3.

1.8.4.3 Prospective studies on meat/livestock price differentials, movements and FMD incidence within countries and between countries in the selected regions are run based on available funds and data

Regular sources of information and data on meat price in Turkey have been identified and discussions with neighboring countries of West Eurasia are under development for expanding a system for sharing this information within the framework of a Statement of Intentions for the cooperation in the region.

5-Issues for Executive Committee attention arising during implementation

As the work progresses, there is close contact with the WRL to ensure that information about FMD risk is analyzed and communicated to risk managers. This is exemplified in the ongoing development and updating of PRAGMATIST, as well as the revision of the Global Monthly Report and the planned Newsletter on Risk Highlights.

The delivery of recruitment and selection of Global Focal Points for each of the pools is progressing slower than originally planned, therefore delivery of the Risk Manager Summaries was also delayed.

Original plans to initiate a meat price monitoring in Trans-Caucasus, Turkey and Iran were not realized yet, promising discussion were held with Georgia and Turkey.

6-Priorities for the next six months

1.8.1 System established and routinely operated to update and communicate the antigen bank priorities based on risk information gathered Pillar 1 to 3 activities, and others

- Update data in the PRAGMATIST
- Represent and communicate aspects of uncertainty inherent in the data
- Communicate with potential users regarding the tool, and facilitate their use of it

1.8.2 System established to ensure that changes in FMD incidence and FMDV circulating lineages/threats in the virus pools is communicated to surveillance managers

- Continue with publication of monthly reports
- Make a call to establish a pool of global experts to review prevalence data and initiate forecasting activities
- Select and train the global experts
- Revise format of Global Monthly Report to include relative prevalence of serotypes/strains at national and pool level, as well as forecasting (at a later date)
- Initiate quarterly Newsletter on Risk highlights

1.8.4 System for gathering and assessing information on specific risk drivers, such as differential meat prices between Europe and third countries, is developed and validated for at least one driver

- Build on the outcomes of the Mission conducted in Iran.

7- Success stories and future emphasis

This component is bringing together, analyzing and applying existing data in new ways. Through collaboration with the WRL and colleagues working on FMD around the world, we are aiming to provide risk managers with better information to prevent and control FMD through choices that they make about vaccines and awareness of events in other countries.

The appetite for this information was affirmed with the results of the survey about the Global Monthly Report. Of the 29 respondents, all of them stated that they found it useful and 72% consult it every month. There were respondents from every continent, and most (72%) are based in FMD-free countries.

Future emphasis should be on strengthening the collaboration with the WRL and improving the flow of information to- and from- professionals working to control FMD globally. This will be done by establishing a system to regularly update the PRAGMATIST data, working with the WRL and OIE/FAO Reference Laboratory colleagues and engaging volunteers and focal points to ensure that the available data are captured and communicated to those who will find it useful to prevent and control FMD.

In the State of Libya EuFMD is supporting the National Center of Animal Health and the University of Tripoli in conducting a field study to characterize the livestock markets in the country and identify the key locations for the future implementation of a systematic monitoring system. The future applications of this study will be developed under the framework of the partnership agreement with CIRAD and in coordination with this partnership.

Following the Trans-Caucasus Regional Workshop on FMD control and PCP progress (February 2018) in Kakheti (Georgia) a proposal for supporting the Georgian National Food Agency (NFA) is being discussed. The aim of the proposal is the development of a system for gathering information on risk drivers for the circulation and spread of FMD integrating movement patterns of domestic livestock and price differentials of live animals and meat products.

8- Budget (€) – by activity

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
84,200	15,451	2,160	21 %	66,589

9-Gantt charts - Planned activities

1.8 Risk analysis and Comm	OUTPUT 1.8 Improved early warning system, risk communication and its uptake by member states into prevention and early detection operations		YEAR 1												YEAR 2											
	Target (Expected result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	1.8.1 Develop and routinely operate a system for antigen bank prioritization based on risk information gathered Pillar I to III activities, and others	1.8.1.1 Antigen prioritization tool (PRAGMATIST) is finalized and available to interested users	P	P	G T P																					
		1.8.1.2. System dev.& applied for regularly updating both the global dist. of virus strains and the vaccine matching results for PRAGMATIST	P	P	P																					
		1.8.2.3. Format for communicating PRAGMATIST outputs to end-users (vaccine bank managers in free and endemic countries)	P	P	P	P	P	P																		
	1.8.2 Monthly and quarterly review system implemented to ensure that changes in FMD incidence, and FMDV circulating lineages/threats in the virus pools is communicated to surveillance managers	1.8.2.1 Global Monthly Reports are issued and format is improved	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	G T P	
		1.8.2.2 A quarterly summary for Risk Managers is produced on the basis of the info collected under 1.8.1.1 and 1.8.3.1. and is issued at every quarterly GMR							G T P			G T P			G T P			G T P			G T P			G T P		
		1.8.2.3 Network of Global Focal Points	P	P	P	P	P	P																		
	1.8.3 Dev.of tool for improving assessment of risk of entry and conseq of entry into EuFMD MS are improved/ used to better id. specific areas for EU/EuFMD attention	1.8.3.1 A system is developed to capture unofficial information on FMD spread dynamics collected during EuFMD activities																								
	1.8.4 Pilot study undertaken on differential in meat prices between Europe and third countries	1.8.4.1 Id./review/ descriptive analysis of historical data on livestock and meat prices differential and FMD incidence in Europe and 1 or 2 selected regions (“West-Eurasia”, South/East Asia, North-Africa)																								G T P
1.8.4.2 Id. of data sources (meat price and animal movements) for the selected regions in Europe and the European neighbourhood (“West-Eurasia”, North-Africa); id of partners for other regions (West/Central Africa, South/East Asia)		P	P	P																					G T P	
1.8.4.3 Prospective studies on meat/livestock price differentials, mvts and FMD incidence within countries and between countries in the selected regions are run based on available funds and data		P	P	P																					G T P	

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 2.1 – *South East Europe*



2.1 SOUTH EAST EUROPE

1-Objective(s) of component

The overall objective of this component is: To improve the ability of Turkey, Georgia and neighbouring West Eurasia countries in FMD management and control to promote their progress along PCP stages and to reduce the risk posed by FMD in the region, with FAO, OIE, EC and EuFMD and the countries in the W. Eurasia region working in coordination under GF-TADS.

OUTPUTS (EXPECTED RESULTS):

2.1.1 Member states (Turkey, Georgia) and immediate neighbours (Armenia, Azerbaijan), and other countries on request, achieve progress within their current Stage of the PCP and in their capacity to manage their programme, and evaluate the feasibility of achieving and maintaining higher stages.

2.1.2 Regional Capacity to manage the FMD risks is improved through development of regional expertise in epidemiology and laboratory disciplines to support the PCP, and on management of control programs, and regional networking to support better information exchange between risk managers in the West Eurasia Roadmap countries

DIRECTLY INVOLVED BENEFICIARIES: The direct beneficiaries of this component are the EuFMD member states Turkey and Georgia and non EuFMD members: Armenia, Azerbaijan, (and possibly other countries in region including Iran, Russian Federation). Indirect beneficiaries: West Eurasia Roadmap participants

RESOURCE BASE

HR: HQ operational costs are identified for support of activities under Pillar II and included in the budget. 2 STPs from Turkey and Kazakhstan support the activities under this component (support shared with other components)

Budget: € 416,006 Agreed at ExCom 94 (including HQ based support services/costs)

Budget for activities (EC-TF): € 356,500 Agreed at ExCom 94 (excluding HQ based support services/costs)

2-Project team

Role	Name	Status
Pillar Manager	Fabrizio Rosso	Animal Health Officer
Component manager	Carsten Potzsch	EuFMD
Other EuFMD Team members:	Ipek Keskin	EuFMD STPs
	Dinara Imanbeyeve	EuFMD STPs
National FAO Focal Point: (Co-ordination-national level)	FAO assistant Representatives in Turkey, Georgia	FAO Staff in national offices
FAO Sub-regional animal health focal points (Co-ordination – Central Asia, Eastern Europe))	Andriy Rozstalnyy (Georgia/Eastern Europe)	FAO Animal Production and Health Officer based in Budapest Office
FAO HQ Contact	Eran Raizman	Head, EMPRES, AGAH Rome
National focal points	Abdulnaci Bulut (Turkey)	National consultants
	Lasha Avaliani (Georgia)	
	Zurab Rukhadze (Georgia)	National consultants
	Satenik Kharatyan (Armenia)	National consultants
	Tamilla Aliyeva (Azerbaijan)	National consultants
ExCom oversight	Jeanluc Angot	ExCom (France)

3 - Countries or partner organizations involved

- EuFMD member states (Direct Assistance) : Turkey, Georgia;
- Non EuFMD members (information gathering and WelNET) : Armenia, Azerbaijan, (and possibly other countries in region including Iran, Russia);
- FAO and OIE (regional roadmap activities) and the EU (coordination of activities in Georgia).
- *Istituto Zooprofilattico Sperimentale del Lazio e Toscana, Italy (IZSLT).*

4 - Progress Report against indicators

Activities	Indicators	Baseline Sept.15	Target 2 years	Unit of measure	Current Status
2.1.1	Number of countries in region with a Risk Based Strategic Plan that has been accepted by GF-TADS FMD Working Group.	2 (Georgia and Turkey)	4 (Georgia, Turkey, Armenia, Azerbaijan)	Number of countries	4 RBSPs accepted by GF-TADS (Georgia, Turkey, Armenia, Azerbaijan)
2.1.2	Participation level from at least 5 countries in the region in online training courses	0	480	Participants engaging in EuFMD e-learning events	430

Output 2.1.1. Assist with development and monitoring of risk-based strategic plans in the Member states (Turkey, Georgia) and immediate neighbours (Armenia, Azerbaijan) and evaluate the feasibility of achieving and maintaining higher PCP stages

All **TransCaucasus countries** (TCC) are in PCP stage 2 and have approved RBSPs.

The TCC presented their country progress during the 1st West Eurasia FMD Epidemiology & Laboratory Networks Meeting on 18-20th September 2017 in Georgia. Representative from Georgia presented their standard operating procedures (SOPs) for FMD surveillance and control, including FMD vaccination, NSP and SP serological and clinical surveys, biosecurity and disinfection. Another presentation covered the regional FMD simulation exercise in Georgia in 2016. All TCC presented their current FMD control and surveillance activities. Armenia presented their A/GVII outbreak control measures in 2016 and introduced the new central veterinary laboratory. Risk based vaccination was further implemented and the total number of ruminant vaccine doses used decreased from 1.5 M in 2016 to 0.5 M in 2017. Georgia and Azerbaijan presented their PCP stage 3 candidate zones. An animal identification and registration system is currently being implemented in both countries. In Azerbaijan all farms are registered and animal movement control was improved specifically during religious holidays (Qurban bayram, Ramazan bayram, Nouruz Bayram). The Azeri FMD Contingency Plan is currently being updated. Revaccination of primo-vaccinates is now implemented with varying coverage in all TCC.

The RBSPs of Georgia, Azerbaijan and Armenia are currently being updated. A workshop on RBSP monitoring and evaluation was held on 12 – 15 February 2018 in Georgia (TransCaucasus Regional Workshop on FMD control and PCP progress). The main points of the amended FMD control strategy were presented and discussed at this workshop. The RBSPs will be amended after the workshop (first quarter of 2018).

FMD low risk zones, which are PCP stage 3 candidate zones, were proposed by the veterinary services (VS) of Georgia, Azerbaijan and Armenia. These zones are the Racha-Lechkhumi region in Georgia and the Abscheron region in Azerbaijan. In Armenia (to be discussed during the WS, not available at the time of this report). Intensified FMD surveillance, including serological and clinical surveillance, was proposed to be conducted by the VS. The results were presented during the 2018 workshop and further activities agreed. In a training workshop held in June 2017 in Georgia measures for a more aggressive FMD control and surveillance were covered, improved surveillance and early detection of FMD to reduce the risk of FMD spread and introduction, the use of clinical investigations improve confidence of FMD freedom and improved FMD awareness.

An online meeting was conducted with TCC and Turkey to assess progress in RBSP updating, planning and implementation of PCP FMD stage 3 activities and the preparation of the TCC workshop in February 2018.

With regards to **Turkey** the amended RBSP is currently under development and it is planned to be completed in the first quarter of 2018. Turkey presented its country progress during the 1st West Eurasia FMD Epidemiology & Laboratory Networks Meeting on 18-20th September 2017 in Georgia. The new Strategic Plan for Turkey includes all Anatolian provinces in a FMD Control Zone, except border provinces with Syria, Iran and the TCC. The strategic goal of the plan is that Turkish Thrace becomes free without vaccination, the FMD Control Zone (CZ) becomes free with vaccination by 2021 and entire Anatolian Turkey becomes free with vaccination by 2023.

GDfC requested EuFMD to provide three additional workshops on FMD control for Eastern Anatolian regions included in the control zone. The training topics are consistent with the trainings conducted in 2017. However, during 2018 GDfC will lead the trainings with EuFMD assistance, and EuFMD support will be decreased over the course of the three workshops. It is also planned that the GDfC epi unit will comprehensively conduct outbreak investigations with forward and back tracing as part of the workshops. The first workshop is planned for end of March 2018.

Output 2.1.2. Support better information exchange between risk managers in the West Eurasia Roadmap countries and develop regional expertise in epidemiology and laboratory disciplines to improve regional capacity to manage the FMD risks.

During the 1st West Eurasia FMD Epidemiology & Laboratory Networks Meeting on 18-20th September 2017 in Georgia representatives of the West Eurasia Roadmap countries provided information about the regional FMD risk situation, including currently circulating FMD strains, results of national FMD surveillance and control measures. The meeting was attended by representatives of 10 countries, namely Afghanistan, Armenia, Azerbaijan, Georgia, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey and Uzbekistan, as well as of the WEA Secretariat, GF-TADS FMD Working Group, EuFMD experts, OIE RR and SRR and Reference Laboratories on FMD (The Pirbright Institute and ARRIAH), DTRA and Boehringer - pharmaceutical company. A training session was conducted by C.Potzsch on FMD serosurveillance and jointly with A.Bulut on outbreak investigation and skills needed in PCP Stage 3. It is clear that countries at their PCP stage 1 need to have a support on the FMD serosurveillance strategy development (design). Support on development of the RBSP (Tajikistan, Uzbekistan) was also asked.

EuFMD provided assistance in preparation of the meeting and support of participation of from Iran and Turkey, as well as expert assistance in delivery of the workshop. The GFTADS Working Group decided that the next West Eurasia Roadmap meeting will be organized in 2018.

Action-plans have been drafted during this meeting for the epidemiology (EpiNet) and laboratory (WelNet) network of the WestEurasian roadmap countries for 2017-2018. Main points of the action plan are for EpiNet:

- Sharing of information and data on vaccination (Turkey, Armenia, Azerbaijan, Georgia, Iran, Russia) and exploring the possibilities of extension to other West Eurasian countries
- Monitoring movement/prices (live animal price at markets and meat prices)
- Establishment of a West Eurasian advisory group on serological survey design and data analysis and for WelNet:
- Participate in annual proficiency test scheme

- Assess the capacity/capability and performance of the national veterinary diagnostic labs.
- Training on FMD laboratory diagnosis, based on gaps identified during the assessment
- Sharing information/data on serotyping and molecular analysis from samples collected in the region

With regards to the EuFMD programme connected to the capacity building, the following e-learning courses were delivered:

- a) in-depth e-learning courses in the reporting period:
 - Risk Analysis along the value Chain;
 - Post Vaccination Monitoring (23 nominations from the WestEurasian countries up to 14/02/18);
- b) FITC (FMD Field Investigation Training Course)
 - in Turkish, for Turkey (June 2017)
 - in Russian with participation of the veterinarians of Armenia, Azerbaijan, Georgia, Tajikistan, Kyrgyzstan, Kazakhstan, Belarus, Moldova, Ukraine was organized between October and November 2017 (October 19th-November 20th). The course has been taken by free and endemic countries. The new initiative of involving Eastern Europe (Ukraine, Belarus, and Moldova) countries to refresh their knowledge on FMD was highly supported by the countries and created a good discussions from different perspectives throughout the course. 190 participants enrolled and 52 completed it.

Training material and all webinar audio/video recordings are available on the EuFMD e-learning website. The training logistics team constantly develops the training websites in cooperation with the trainers, training participants and pillar II staff and improves content and user friendliness.

An online survey on data sharing was conducted for the West Eurasian countries. The objective of the survey was to informally explore the type of available information, the availability and interest to share this information. Despite the overall positive feedback to the proposal and the reported availability of information, further action shall follow a preliminary assessment. The TransCaucasus Regional Workshop on FMD control and PCP progress (February 2018) was aimed, in addition to other objectives, to discuss a possibility to extend the Statement of Intention on the type of information to be shared based on the survey result and the Workshop outcome.

Needs assessment was also conducted via online webinar to the Focal points on Trainings update. 7 representatives from Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, and Tajikistan were present. Participants have been asked on their opinion regarding training needs assessment results previously conducted and eventual gaps in training their countries have. All participants confirmed the relevance of the training needs assessment process and importance of the courses selected for the in-depth online training based on needs assessment. Participants have prioritized following trainings: Laboratory training, PVM and Risk analysis. All participants responded as high importance of conducting these trainings in Russian, emphasizing the difficulty of finding English speaking experts in their countries.

With reference to the assistance to **the regional cooperation between Transcaucasian and neighbouring countries in the prevention and control of FMD and other major TADs (Statement of intention of territories within or neighbouring to the Caucasus)**, according to the Statement of intention the TCC, Turkey, the Russian Federation and Iran regularly submit reports of vaccination figures and outbreaks to the EuFMD. From these national reports, monthly reports are collated by EuFMD and circulated among these countries. The territories considered for the reporting are: Georgia, the Republic of Armenia, the Republic of Azerbaijan, the Republic of Turkey (provinces: Artvin, Ardahan, Kars, Igdir, Agri), the Islamic Republic of Iran (provinces: West Azerbaijan, East Azerbaijan, Ardebil, Gilan), the Russian Federation (the Krasnodar Krai, the Karachayevo-Cherkessian Republic, the Kabardino-Balkarian Republic, the Republic of North Ossetia, the Republic of Ingushetia, the Republic of Chechnya, the Republic of Dagestan, Adygeya). During this reporting period reports were not submitted by Iran whether Russia submitted the reports on a six-month basis.

To further improve the quality of the vaccination and outbreak reports, a mapping tool is planned to be implemented based on Google Fusion Tables (situation, progress). Indicators for FMD risk control and vaccination coverage are currently reviewed in cooperation with the *Istituto Zooprofilattico Sperimentale del Lazio e della Toscana*.

To follow up the progress of activities agreed under the “Statement of Intentions”, a part of the TCC workshop that was conducted from 12 to 15 February 2018 in Georgia (TransCaucasus Regional Workshop on FMD control and PCP progress) was dedicated to provide an update of the level of implementation of the Statement of Intentions concerning the control of FMD and other major epizootic transboundary diseases. Representatives of Iran, Russia and Turkey attended this part of the workshop together with representatives of Armenia, Azerbaijan and Georgia who were involved in the whole workshop aimed to assess the level of implementation of RBSP in TCC countries and provide support in planning and implementation of progression to PCP Stage 3 in candidate zones.

5- Areas which need more attention/emphasis in the next 24 month period

1. Progress

- FMD control and surveillance measures identified for stage 3 candidate zones of TCC and Turkey
- Action-plans have been developed and agreed for WelNet and EpiNet 2017-18
- E-learning (courses and webinars) are delivered based on training needs assessment
- Level of implementation of the Statement of intention monitored and discussed.

2. Major Issues

- Implementation of the WelNet and EpiNet action plan 2017-18; the plans are ambitious and need close follow-up and assistance
- Drafting and implementation of more aggressive zonal FMD control and surveillance strategy for TCC and Turkey
- Progress with RBSP development for stage 1 countries in the WestEurasian region, i.e. Turkmenistan, Uzbekistan, Tajikistan (not included in the EuFMD workplan).

3. Significant Plans

- Georgia and Azerbaijan to apply for zonal PCP stage 3 during the 2018 WestEurasia roadmap meeting
- Revision of current RBSP and evidence of monitoring and evaluation process.
- Assist and improve the epinet and welnet through through a series of webinars on 'vaccinology' with both epi and lab components included (for Pillar II).
- Development of database for collection of vaccination coverage and risk information in TCC area
- Providing e-learning courses in Russian for the countries of the WestEurasian roadmap.

7. Budget

Total Budget Workplan activity 24 months	Expenses Sept. 17 –Dec. 17	Expenses (forecast) Jan 18-Mar 18	% project completion	Actual available
€ 356,500	€ 30,642	€ 25,000	15%	300,858 €

8-Gantt charts – Planned, and Progress Update/revised program

Activities	indicators	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
		Activity completed no further actions												Activity completed no further actions											
2.1.1 Assist with dev & monitoring of RBSP in MS (Turkey Georgia) & immediate neighbours (Armenia, Azerbaijan) & evaluate feasibility of achieving and maintaining higher stages	2.1.1.1 Assist with development of risk-based strategic plan (RBSP) in Armenia and Azerbaijan. Update of RBSP in Georgia																								
	2.1.1.2 Assist with establishment and implementation of monitoring of RBSP in Georgia , Armenia and Azerbaijan; assist progression towards PCP stage 3					W		O						O			W			O					
	2.1.1.3 Assist with implementation of monitoring of RBSP and technical support for national epi-network in Turkey. Assist Turkey in the progression along the PCP		T	T	T		W						W						M					W	
	2.1.1.3 Assist component 1.8 in meat price monitoring systems					V					V						V								V
2.1.2 Support better information exchange between risk managers in the West Eurasia Roadmap countries and Develop regional expertise in epidemiology and laboratory disciplines to improve Regional capacity to manage the FMD risks	2.1.2.1 Support better information exchange between risk managers in the West Eurasia Roadmap countries			W		O		W		W			O		W		W		O		W		O		
	2.1.2.2 Development of regional expertise in epidemiology and laboratory disciplines					O							O				M		E				O		
	2.1.2.3 Assist the regional cooperation between Transcaucasian and neighbouring countries in the prevention and control of FDM (statement of intention of territories within or neighbouring to the Caucasus)				O			L				O													

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 2.2 – *South East Mediterranean*



2.2 South East Mediterranean

1-Objective(s) of component

The overall objective of this component is: better FMD management in the neighbourhood of Cyprus and Israel

OUTPUTS (EXPECTED RESULTS):

1. Risk-based Strategy Plans (RBSP) adopted, implemented and monitored in Egypt;
2. Risk-based Strategy Plans (RBSP) adopted, implemented and monitored in Palestine and Israel;
3. Risk-based Strategy Plans developed and PCP-FMD progress achieved in Jordan and Lebanon;
4. System in place to provide improved disease risk information through networking for better information exchange to managers of countries under this component for planning risk-based FMD control re: risk-based surveillance, risk-based vaccination programmes and vaccine selection for the threats from particularly bordering areas in the Middle-East and sub-Saharan East Africa.

DIRECTLY INVOLVED BENEFICIARIES: Israel, Cyprus, Palestine, Egypt, Lebanon, Jordan.

RESOURCE BASE

HR: HQ operational costs are identified for support of activities under Pillar II and included in the budget. 2 STPs from Morocco and Kazakhstan support the activities under this component (support shared with other components)

Budget: € 293,883 Agreed at ExCom 94 (including HQ based support services/costs)

Budget for activities (EC-TF): € 260,000 Agreed at ExCom 94 (excluding HQ based support services/costs)

2-Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	Fabrizio Rosso	Animal Health Officer
Component manager	Abdenacer Bakkouri/Dinara Imanbeyeva	EuFMD STP
Other EuFMD team members	N/A	N/A
Regional and National consultants		
National focal points		
Israel	Shilomo Garazi	CVO Israel
Palestine	Iyad Adra	CVO Palestine
Egypt	Mohamed Atea	Deputy CVO Egypt
Jordan	Majed Hawaasha	Head of Animal Health
Lebanon	Ibrahim Elias	Division
EARLN	Sabenzia Wekesa	CVO Lebanon
		EARLN Coordinator
ExCom oversight	Jean-Luc Angot	Executive Committee (France)

3-Countries or partner organizations involved

The activities will be mainly implemented in Israel and Cyprus as EuFMD members and in Palestine, Egypt, Lebanon and Jordan as neighbouring countries.

The EuFMD works in coordination with FAO offices in Jerusalem and Cairo, and with approval from OIE Beirut and GfTADS' approval of the East African Regional Laboratory Network (EARLN).

The EuFMD is collaborating with *Istituto Zooprofilattico Sperimentale del Lazio e della Toscana* for implementing the activity described in the programme and with Jordan University of Science and Technology (JUST, Jordan).

4-Progress against indicators

Activities	Indicators	Baseline Sept.15	Target 2 years	Unit of measure	Current Status
2.2.1 2.2.2 2.2.3	Number of countries in region with a Risk Based Strategic Plan that has been accepted by GF-TADs FMD Working Group.	1 (Egypt)	4 (Egypt, Jordan, Palestine, Lebanon)	Nb of countries	Achieved: 2 RBSPs developed: Egypt and Palestine (1 RBSP accepted by GF-TADs FMD Working Group), 1 RBSP drafted: Jordan
2.2.4	Assist networking through online meetings and sharing of FMD information to risk managers of countries under this component	0	140 participants in 24 months involving 6 countries	Nb of reg. participations in online meetings	185 participants from 11 Arabic speaking countries in the NENA region.

Progress Report

Output 1. Risk-based Strategy Plans (RBSP) adopted, implemented and monitored in Egypt

EuFMD has been working for many years in Egypt to progress FMD control. EuFMD has supported the veterinary services of Egypt in reviewing the FMD control strategy and Egypt has finalized a risk-based strategy plan (RBSP) for FMD control. This RBSP was presented during the third Regional meeting of the FMD Control Roadmap for the Middle East in Doha, Qata, December 2015 and in Jordan, October 2017 and Egypt has been assessed by the Regional Advisory Group to be in PCP stage 2.

Samples are regularly shipped to WRLFMD in Pirbright and the results illustrated again the predominance of African O EA-3 strains and their very close relatedness with the recent outbreak strains in the Gaza strip, Israel and the West Bank, the absence of O Ind2001 strains and the continued presence of A/AFRICA/G-IV strains.

Despite the presence of a RBSP and the importance of providing evidence of the monitoring of its level of implementation the regular reports produced by Egypt with data of passive and active surveillance activities are produced with some delays and not on a monthly basis. This reduce the understanding of the evolution of the disease in the country and the capacity to assess the effectiveness of the control plan implemented.

EuFMD support for 2017-2018 will continue in coordination with LLNL/US-DOS funded activities. The LLNL/US-DOS programme was supposed to end in November 2017 but it was officially extended until May 2018. Currently the implementation of project is facing some problems due to the need of a security clearance for any activity implemented in the country and the less pro-active attitude of the Egyptian veterinary services.

Following national training courses (carried out six times now by Egyptian trainers) supported and implemented in the country from January to March 2017, a real-time training course on advanced outbreak investigation was delivered in July 2017 guided by two experienced EuFMD trainers.

A vaccine audit was carried out in April 2017 and a follow up mission in October 2017 with two international experts in FMD vaccine production accompanied by an EuFMD expert in the framework of improvement of FMD vaccine manufacturing in Egypt through auditing on vaccine quality (including efficacy and safety data and all relevant aspects of QA/QC) at the 2 plants in the country (one government owned and one private) and the vaccine control institute. The missions revealed many challenges and deficiencies and has led to many recommendations to all relevant parties involved.

Monitoring and evaluation of vaccine quality and vaccination programs is little addressed in current FMD programs in Egypt. This situation seems to disregard the complexity of appropriate assessment of the vaccine quality and evaluation of the effectiveness of vaccination programs.

To support Egypt and other countries in the area (Palestine, Lebanon, Jordan) in gaining a better understanding of these multiple aspects, the EuFMD workplan 2017-2019 foresees in supporting the establishing of monitoring and evaluation mechanisms and to support regional technical meetings on this subject. It is proposed to organize a sequence of events including online-training, a regional technical meeting and in-country workshops on FMD vaccination and post-vaccination monitoring based on the FAO/OIE guidelines on Post-vaccination Monitoring (PVM). By integrating different approaches of knowledge transfer, regional networking and sharing of information and experience, it is foreseen that the capacity building on this aspect of monitoring and evaluation is sustainable both in the specific countries as well as in the region.

The different events consist of: 1) EuFMD online training on PVM based on the FAO/OIE PVM guidelines in April for 2 members of the national FMD task force of participating countries; 2) Regional technical meeting; 3) EuFMD-facilitated bi-country workshops (Egypt-Palestine and Jordan-Lebanon) for 5 participants per country in which the approaches to PVM (as discussed under 1 and 2) will be disseminated to a wider group of epidemiologists, diagnosticians and other relevant staff of the veterinary services.

Output 2. Risk-based Strategy Plans (RBSP) adopted, implemented and monitored in Palestine and Israel

Palestine has been supported for the development of the Risk Based Strategic Plan with several workshops during the years 2016-2017. The activity carried out has been presented at the road map meeting for the Middle East held in Jordan in October 2017. Although the RBSP has been developed and available the country has been assessed in PCP stage 1, in agreement with the Palestinian veterinary services, as the plan is not yet endorsed by the political level. The assessment can in fact allow the Veterinary Services to have the political and financial support requested for the implementation of the plan.

The following activities were identified to support Palestine in the upcoming months: monitoring and evaluation of RBSP, enhance of passive/active surveillance, risk based vaccination, post vaccination monitoring, shipment of samples to Pirbright, laboratory support.

In January 2017 a FMD outbreak was reported in Israel, in a Kibbutz dairy farm 4 km from the border with the Gaza strip (fortunately contained to this Kibbutz) and clearly connected to outbreaks ongoing on in the Gaza strip for several weeks before. The virus was identified and characterized as FMDV/O/EA-3 which is dominant in Egypt. The hypothesis at that time was that this virus has arrived in the Gaza Strip through transport of animals from Egypt by tunnels. In May and June 2017 additional outbreaks were reported in the West Bank and in Israel close to the border with the West Bank. All virus strains were characterized as FMDV/O/EA-3 and are very closely related to each other and to all FMDV/O/EA-3 strains (n=21) collected in 2016 and 2017 in Egypt. The regular shipment of samples from Egypt with EuFMD support allowed to show that the sequences from GS/Israel/WB were indeed most closely related to Egyptian O/EA-3 rather than the virus isolated from Ethiopia in 2017 corroborating the hypothesis that these viruses have arrived by smuggling of animals through tunnels between Egypt and the Gaza strip. In November FMD outbreaks were detected in three sheep flocks in villages near Hebron in the PA. Samples of heart tissue was delivered to KVI for diagnosis and an O FMD virus from the O/EA-

3 lineage was isolated from the sample. From genotyping that the virus appears to be close related to the virus that was isolated in the PA and in Ein Shala in May 2017.

It is still unclear how the virus has travelled from the Gaza strip to the West Bank and how the disease affected Israel considering that the borders of the Gaza strip with Israel are completely under Israeli military control.

On the vaccination side the type O is well covered by the vaccine strains currently available (acceptable r1 value for O 3039 and O/TUR/5/09) and there are less worries then about for example type A and SAT2.

Output 3. Risk-based Strategy Plans developed and PCP-FMD progress achieved in Jordan and Lebanon

In order to develop Risk-based Strategic Plans in Jordan and Lebanon different workshops have been planned with focal points of the two countries.

The development of RBSP started in Jordan and the first workshop has been held in Amman from 16 to 21 April 2016 followed by other workshops carried out on 20-22 November 2016 and on 14-16 May 2017 and a laboratory assistance mission held on 23-24 November 2016. The main focuses of these workshops were the analysis of value chain, risk pathway, risk hotspots and benefits of FMD control. During the third workshop, considering that it was carried out during the occurrence of outbreaks the following topics were also covered: outbreak investigation, contingency planning, risk based surveillance and control measures, including risk based vaccination. Already mentioned in previous reports but important to remember are the observations and outcomes which highlight the difficulties in the country: 1) farmers are reluctant to notify of outbreaks because they are afraid of the negative consequence in milk sales ; 2) politically, there is high pressure related to the export to Saudi Arabia; 3) due to the above stated problems, no samples were shipped to The Pirbright Institute (samples are still available at JUST); 4) doubts regarding the effectiveness of the ARRIAH vaccine; 5) budget shortages to deal effectively with the outbreaks; 6) the absence of a relevant contingency plan.

At the FMD Road Map Meeting for the Middle East held on 17-19 October 2017 the Regional Advisory Committee has assessed Jordan in provisional stage 2 of the Progressive Control Pathway (PCP) with the condition of finalizing the RBSP by February 2018.

A workshop was then carried out on the 30 January – 1st February 2018 with purpose to finalize the development of a Risk Based Strategic plan and to build upon the lessons learnt from recent outbreaks, epidemiology and control measures already implemented. During the workshop the EuFMD and Jordan task force experts worked on: a) definition of impact of FMD and risk hotspot (RBSP chapters 1 and 2), b) identification of goals and strategic objectives for FMD control and related tactics and activities (RBSP chapter 3), c) building a logframe: definition of indicators, targets and means of verification (RBSP chapter 5), d) formulation of an operational plan for the RBSP implementation (RBSP chapter 6), e) identification of improvements needed within the Veterinary Services for efficient and sustainable FMD prevention and control and identification of the technical assistance required (RBSP chapter 4 and 7).

The RBSP was drafted with specific focus on the following sectors and objectives: dairy sector (decrease FMD outbreaks and FMDV transmission in cattle), small ruminants (decrease number of outbreaks during seasonal migration), livestock markets (reduce transmission in high risk markets), trade (reduce risk related to international trade and improve exportations). In addition specific actions were identified to ensure vaccine effectiveness (immunogenicity studies), improve awareness and biosecurity of stakeholders, improve passive surveillance, and improve collaborations with academics and countries of the region. A financial support for the implementation of the plan has been granted by the Ministry (500.000 JD/year for the next three years).

Jordan has experienced FMD outbreaks and has reported these outbreaks to World Organisation of Animal Health (OIE) on March 13th 2017 (according to the report, the outbreaks started on February 21st 2017), which is 10 years after the last reported outbreaks. To the OIE 3 outbreaks were reported but the actual number of outbreaks was 54. Collaboration with the Jordanian University of Science and Technology (JUST) has revealed that these outbreaks have been caused by the FMDV lineage O/Ind2001d where the Jordan isolates are most closely related to isolates from Saudi Arabia (2016). There is no evidence of the effectiveness of the current ARRIAH vaccine used against the strains circulating in Jordan and in the area. During the last workshop it was discussed and agreed to carry out field studies on the quality of vaccines distributed and available in the country (ARRIAH, Schelkovo, VETAL and Merial) with the participation of the Veterinary Service, private sector and JUST.

In Lebanon, the first workshop was carried out in June 2016 by EuFMD focused on livestock production systems, analysis of the value chains and the construction of risk pathways to support risk estimation and prioritization. The first priority identified for Lebanon was to provide evidence of the assumed absence of FMD virus circulation through conducting a number of sero-surveys (discussed/designed during the workshop). The follow up on the workshop was for the participants to elaborate on the situation analysis in Lebanon, including aspects of livestock distribution and seasonal movements, risk hotspots and their pathways and the identification of gaps and needs with the Veterinary Services for their role in controlling FMD. Despite several attempts we have not been able to plan a second workshop. The Lebanese counterpart indicated that the shortage of personnel available at the central level and the reduced budget did not allow until now to carry out any of the activities agreed during the workshop for the development for RBSP.

Output 4. System in place to provide improved disease risk information through networking for better information exchange to managers of countries under this component for planning risk-based FMD control re: risk-based surveillance, risk-based vaccination programmes and vaccine selection for the threats from particularly bordering areas in the Middle-East and sub-Saharan East Africa

EuFMD produces the Global Monthly Report (GMR). For this report, many sources are used and information is also received from a number of focal contact persons. The GMR adds to the quarterly and annual WRLFMD reports, and – since it is on a monthly basis – provides more real-time information. The timely information sharing of the new type A/ASAI/Genotype VII strain by all involved is exemplary including the relatively rapid generation of vaccine matching results. The information has been shared through GMRs and online meetings and directly by the WRLFMD representing the FAO/OIE FMD laboratory network. Also the available and already published information regarding the predominance of FMDV/O/EA-3 in Egypt and access to the most recent information from GOVS and AHRI in Egypt enabled EuFMD to correctly predict the toptype and lineage of the FMD virus responsible for recent outbreaks in the Gaza strip and Israel and inform the Israeli and Palestinian authorities already about available vaccine matching information in collaboration with WRLFMD in Pirbright.

Initiatives for improving animal mobility knowledge in the region have been planned under the LoA with CIRAD for the development of a FMD surveillance programme on risk information and mapping tools for southern European neighbourhood, integrating movement patterns of domestic livestock. Egypt, Libya and Sudan will be involved in the activities. In the GMR the gaps in virological surveillance in pools 4 and 5 are illustrated clearly. Some budget is available for facilitating shipments from countries in sub-Saharan East Africa representing putative threats to countries in the Middle-East.

Sudan was included in the workplan 2017-2019 considering the epidemiological connections with Egypt. The Sudanese veterinary services were contacted in order to prepare the workshop planned in April and aimed to analyse the value chain, risk pathways and hotspots. It has been asked to the veterinary services to conduct preliminary activities fundamental to gain a common understanding of the work to be implemented and targets to be achieved and to provide essential information that can be analysed during the workshop. For this reason it was suggested to Sudan to provide in advance the composition of the task force for FMD control and ask the members to be involved in the e-learning courses on PCP available on the EuFMD e-learning website. In addition specific tasks have been assigned to the task force in order to collect the basic information needed for the value chain and risk pathways analysis.

Virtual networking through webinars and online meetings has been organized in connection with similar activities that have started already under component 2.3 REMESA with a focus on the NENA countries.

At the end of February 2017, a Letter of Agreement (LoA) was signed between JUST and EuFMD/FAO in which the following outputs were agreed upon: 1) adapt FMD Investigation Training Course (FITC) to the Near East/North African (NENA) context and deliver to participants from NENA countries (more specifically Jordan, Lebanon, Palestine, Egypt, Libya and Syria); 2) make appropriate recommendations for improving FMD preparedness related training methodology and national level training for official veterinarians in the above mentioned NENA countries; 3) produce Training material for private veterinarians, animal health workers and farmers on biosecurity and notification of FMD outbreaks; 4) develop and deliver a 4-hour long pilot on-line course for private veterinarians, animal health workers and farmers. The Arabic FITC course was delivered to 185 participants from 11 Arabic speaking countries in the NENA region and a report was produced with the

recommendations for improving the training methodology in particular with the use of e-learning for official veterinarians for the NENA countries. Leaflets were produced in Arabic addressed to farmers and aimed to improve biosecurity and notifications of outbreaks. The activity related to points 4 of the LoA was not completed and therefore part of the budget allocated for the LoA was not used.

5-Issues for Executive Committee attention arising during implementation

- In Egypt, activities have continued, but the current FMD situation in the country is a point of concern. The vaccine is no longer supplied for free and vaccination coverage has dropped dramatically. Also the management and performance of the virology department within AHRI is a point of concern. Since Egypt is part of two FMD pools and on a crucial crossway between Africa and the Middle East EuFMD should definitely continue and maybe extend activities in Egypt. In the recent months a little response has been received from Egypt on the initiatives proposed under the LLNL/US-DOS project despite the fact that the programme was preliminary agreed.
- In Lebanon, only one workshop has been organized until now and planning of a second workshop has not yet succeeded. The Lebanese suggestion that FMD is circulating at a very low level and that the country or zones within the country may even be free with vaccination will have to be substantiated by the proposed serosurveillance studies. Also the recent FMD outbreak in Northern Israel caused by A/ASIA/G-VII can represent an incursion from Lebanon or Syria.

6-Areas that require more attention in the next period

- Continued support to Egypt (monitoring and evaluation of RBSP implementation, passive and active surveillance, laboratory support, regular shipments to Pirbright, risk based vaccination and post vaccination monitoring);
- Continued support to Jordan (RBSP development, passive and active surveillance, laboratory support, regular shipments to Pirbright, risk based vaccination and post vaccination monitoring, vaccine effectiveness studies);
- Support for Lebanon to be planned according to the response from the country (implementation of the work assigned);
- Continued support to Palestine (monitoring and evaluation of RBSP implementation, passive and active surveillance, laboratory support, regular shipments to Pirbright, risk based vaccination and post vaccination monitoring);
- Implementation of vaccine effectiveness studies in the region in collaboration with local centres of excellency;
- Assist and improve the network among countries through a series of webinars on 'vaccinology' with both epi and lab components included (for Pillar II).
- Provide technical assistance to Sudan for PCP/RBSP in collaboration with/supported by the FAO Khartoum office.

7. Budget

Total Budget Workplan activity 24 months	Expenses Oct. 17 –Dec. 17	Expenses (forecast) Jan 18-Mar 18	% project completion (forecast)	Actual available (forecast)
€ 260,000	€ 16,730	€ 15,000	12%	€ 228,270

8-Gantt charts – Planned program

Activities	Indicators	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
2.2.1 Support to implementation and monitoring of FMD Risk Based Strategic Plan in Egypt	2.2.1.1 a) TOTs: training on outbreak investigation and follow-up of TOT training 2.2.1.1 a) TOT: training on outbreak investigation and follow-up of TOT training; b) Training on advanced outbreak investigation; c) Training on local response in case of FMD outbreak; (activity is dependent on contribution to funding provided by LLNL, USA)		W E B				W E B				W E B				W E B			W E B			W E B			W E B	
	2.2.1.2 Establishing monitoring and evaluation mechanism at GOVS activity is dependent on contribution to funding provided by LLNL USA)				W S			W S																	
	2.2.1.3 Vaccine quality audit	M																							
	2.2.1.4 Regional technical meeting (activity is dependent on contribution to funding provided by LLNL, USA)							W S																	
	2.2.1.5 Support to Animal Health Research Institute(activity is dependent on contribution to funding provided by LLNL, USA)					M																			
	2.2.1.6 Promoting strategic vaccination and assessment of vaccination effectiveness						W S							M											
2.2.2. Assist finalization &implementation of the RBSP in Palestine & Israel	2.2.2.1 Finalization of risk-based strategy plan in Palestine	Activity completed no further actions																							
	2.2.2.2 Establishing M&E mechanism on implementation and impact of RBSP	Activity completed no further actions																							
	2.2.2.3 Support to Central Vet. Laboratory Al Aroub and to Polytechnic University Hebron								M																
	2.2.2.4 Workshops on RBS and risk-based vaccination					W S			O M	M		O M	M		O M			O M							
	2.2.2.5 Steering committee convened and regular meetings held										M												M		
2.2.3 Assist dev. of RBSP in Jordan & Lebanon	2.2.3.1 Needs assessment prior to missions	Activity completed no further actions													Activity completed no further actions										
	2.2.3.2 Provision of training and support			W S				W S			W S				W S				W S				W S		
2.2.4 Assist networking through online meetings and sharing of FMD info to risk managers of countries under this comp	2.2.4.1 Implementation of a lab and epi network		W E B			O M	W E B			O M	W E B			O M	W E B			W E B		O M	W E B			W E B	
	2.2.4.2 Sample submission from regions posing risk to Israel supported			L S				L S				L S				L S				L S			L S		
	2.2.4.3 Information on disease risk collated and communicated to risk managers in Israel					V	O M				V	O M					V	O M					V	O M	
	2.2.4.4 Support to progressive FMD control in Sudan to reduce risk to Egypt and subsequently to Israel							M			L S			W S			L S			W S			L S		

EuFMD Phase IV

Report to the EuFMD Executive

October 2017 - March 2018

Component 2.3 - Support to REMESA

Pillar Manager: F. Rosso

Component Manager: A. Bakkouri

Reporting: A. Bakkouri

Focal point Executive Cttee: J. Angot

2.3 SUPPORT TO REMESA

1-Objective(s) of component

The overall objective of this component is: To assist national FMD risk management as part of the REMESA action plan.

OUTPUTS (expected results):

1. Progress to develop, adopt and implement Risk Based Strategic Plans for FMD control in Libya and Mauritania, and capacity to achieve and maintain PCP Stage 3 or 4 in Morocco, Algeria, Tunisia;
2. Coordination framework in place to facilitate communication, review and guide upon activity implementation nationally and regionally, as needed to progress the REMESA Strategic Plan, including the establishment of surveillance measures aimed to improve security of sanitary barriers between countries or zones with different FMD situations;
3. System in place to provide improved disease risk information for planning of vaccination programmes, including vaccine banks, to support managers in REMESA.

Directly involved beneficiaries: *Algeria, Libya, Mauritania, Morocco , and Tunisia*

Resource base:

HR: HQ operational costs are identified for support of activities under Pillar II. 1 STP from Morocco

Budget : € 367,769 Agreed at ExCom 94 (including HQ based support services/costs)

Budget for activities (EC-TF): € 326,000 Agreed at ExCom 94 (excluding HQ based support services/costs)

2. Project team

Role	Name	Status
Pillar Manager	Fabrizio Rosso	Animal Health Officer
Component Manager	Abdenacer Bakkouri	EuFMD STP
REMESA RCU contacts	M. Bengoumi (FAOSNE)	
FAO Regional Contact (Coordination with FAO NE regional activities)	Mayen Friederike (FAORNE)	FAO Regional Animal Production and Health Officer, Near-East (Cairo)
ExCom oversight	Jean-Luc ANGOT	Executive Committee (France)

3 - Countries or partner organizations involved

OIE sub regional office in Tunis as part of the REMESA co-secretariat

Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna" (IZSLER, Brescia, Italy)

Jordan University of Science and Technology (JUST, Jordan).

An agreement with CIRAD has being currently finalized for the delivery of services and carrying out activities that covers components PII and PII, namely the planned activities for the 2.3 components. The pursued overall objectives will contribute to (1) develop a FMD surveillance programme on risk information and mapping tools for southern European neighbourhood, integrating movement patterns of domestic livestock; (2) assist in the

designing of a surveillance for FMD early detection in high-risk areas of North Africa; (3) evaluate the potential for development of FMD control options in West and Central African countries.

4-Progress against indicators

Activities	Indicators	Baseline Sept.15	Target 4 years	Unit of measure	Current Status
2.3.1	Nb of countries in region with a RBSP accepted by GF-TADs FMD WG	0	1	Nb of countries	First drafting Mauritania
	Nb of countries in region accepted in PCP Stage 3 or above by the GF-TADs FMD WG	1	2	Nb of countries	3 (Tunisia, Algeria, Morocco)
2.3.2	Nb of high-risk border areas where a surveillance system is designed, implemented and functioning	0	1	Nb of implemented risk based surveillance	0
2.3.3	Nb of participants from region taking part in online training course or webinars annually.	0	200	Participants taking part in online training course or webinars annually.	93

Progress report

The activities are addressed mainly to the North African countries within the REMESA framework: Tunisia, Libya, Algeria, Morocco, and Mauritania. The EuFMD Member States (France, Portugal, Spain, Italy, Cyprus, Greece, and Malta) are also involved as during the REMESA-JPC meetings the programme and results are shared, commented and approved. Other North African countries, part of REMESA but not directly involved in the present workplan component (Egypt, Lebanon and Jordan), can benefit of the activities supported by this component to improve the coordination framework to progress the REMESA action plan (output 2).

Outcome 1: Progress to develop, adopt and implement Risk Based Strategic Plans for FMD control in Libya and Mauritania, and capacity to achieve and maintain PCP Stage 3 or 4 in Morocco, Algeria, Tunisia

a. Libya

Following the re-establishment of the contact in November 2017 with the Libyan Veterinary Services in the margin of the REMESA meeting, an update of WorkPlan for Libya was agreed with the objective to assist FMD control and surveillance activities in Libya:

- With regard to the development of RBSP started with 2 workshops in 2014, a possibility of implementing desktop assistance with regular on-line meetings with a restricted Task Force and specific assignments provided will be examined.
- Diagnostic kits were provided and the serosurveillance protocol designed in February 2017 to identify the serotypes circulating in the country in Libya is being implemented. Positive samples will be sent to ISZLER at the end of the survey.
- The study on Livestock movement monitoring in the markets is being implemented in Libya to allow a better understanding of the risk for North Africa (for details, see component 1.8.4). EuFMD will assist the implementation of the survey with the provision of technical assistance for the finalization of the questionnaire and the analysis of the information collected.
- In support to Laboratory diagnostic capacity and to the extent that IZSLET accepted to provide training for two Libyan laboratory trainees, EuFMD will assume the related travel and accommodation costs.

b. Mauritania

A series of six workshops was organized in Mauritania between February 2015 and March 2017 with the objective to assist the country for the development and implementation of the RBSP and to improve the knowledge on FMD circulation in the country. After the activity implemented, efforts were stepped up from September to December 2017 as specific commitments were assigned to the FMD task Force for the finalization of the RBSP (a draft RBSP was expected for July 2017). The implementation of future activities aiming to progress toward the development of the national RBSP remains conditioned by the effective commitment of the country to achieve this cornerstone.

c. Algeria, Morocco and Tunisia

Three missions were carried out in Tunisia, Algeria and Morocco between November 2017 and January 2018 with the objectives to discuss and assess general and specific needs for the implementation of an early detection and risk-based passive/active surveillance and to prepare the delivery of a regional workshop planned in February 2018 dedicated to promote and set up the FMD risk-based surveillance and early detection system in North Africa. The need of implementing such ongoing surveillance (with the focus on the role of key stakeholders) is considered fundamental to provide good level of confidence that the control measures implemented are effective and the early detection system has a good level of sensitivity.

Outcome 2: Coordination framework in place to facilitate communication, review and guide upon activity implementation nationally and regionally as needed to progress the REMESA Strategic Plan, including establishment of surveillance measures aimed improving security of sanitary barriers between countries or zones with different FMD situations

The **FMD Francophone network** was created with the aim of improving the networking and facilitate the exchange of knowledge and experience on FMD prevention and control between French speaking countries. Currently, this network that was merged with North African network is counting more than 136 participants from 20 countries with a forecasted enlargement following the intensification of pillar III activities, particularly in Central and West Africa.

A **series of webinars** have been organized within the Francophone network and the North African network to cover the thematic identified as priorities within the beneficiary countries ((i) Control and Management of the outbreaks; (ii) Epidemiology ; (iii) Laboratory diagnostics; (iiii) Risk assessment and monitoring. In line with activities planned for North Africa (Implementation of trainings and workshops to promote risk based surveillance and early detection in Algeria, Tunisia and Morocco), a webinar was carried out in December 2017 on “Public-private partnership: Involvement and role of livestock-holders and their representatives in early detection and animal health crisis preparedness and management” with the plan to organize the second part of the **public-private –partnership** webinar series on the role of private veterinaries.

Within activities of components 2.4 (training development and coordination) and 2.3 (support to REMESA network), a six weeks On-line in-depth course on risk value chain analysis along the value chain was delivered between 25th September to 10th November 2017. 14 participants from Libya, Morocco and Tunisia among 33 participants from 7 countries of MENA region have attended this online course.

Outcome 3: System in place to provide improved disease risk information for planning of vaccination programmes, including vaccine banks, to support managers in REMESA

Diagnostic kits have been delivered to Algeria and Tunisia in order to carry out the surveillance on small ruminant planned for the region (Algeria, Tunisia and Morocco) with the aim to detect the possible circulation of the disease among the small ruminant population. The surveillance has been carried out in Morocco (723 samples, 33 positives that represent 4.6% as seroprevalence) and Algeria (1480 samples were collected and tested with results are not published yet). In Tunisia the serosurveillance started in January 2018 and samples are currently being sent to the national laboratory.

The field study on vaccine effectiveness, proposed to Algeria, Morocco, and Tunisia in order to evaluate the effectiveness of FMD vaccines currently used has been conducted, including national tests. Samples from both Algeria and Tunisia, went rejected, during the shipment to IZSLER due to traceability problems. In Morocco the testing is ongoing. Tunisia has recently sent a new sample package to IZSLER with ANSES coordination.

5. Issues for Executive Committee attention arising during implementation

The programme should focus on a better understanding of the risk associated with the incursion of FMDV in the region (e.g. animal movements) and on the analysis of the factors that drive the change of such risks (e.g. market demand). This will be addressed by the activities organized in collaboration with CIRAD on risk mapping. Implementation of studies in Libya on animal mobility and FMD circulation with the support of the Libyan Veterinary Services should be encouraged despite the instability of the country.

Risk based surveillance for early detection and a risk-based vaccination should be promoted in Algeria, Tunisia and Morocco despite the tendency of the countries to prioritize mass vaccination and surveillance carried out in specific periods.

The development of RBSP and further activities aiming to progress toward its implementation and monitoring remains conditioned by the commitment of Mauritania to finalize the RBSP, and the social-political stability in Libya.

6. Areas that require more attention in the next 24 month period

- a. Implement risk mapping studies connected to animal mobility in Maghreb, with the assistance of CIRAD
- b. Maintain the collaboration and coordination established with FAO and OIE in order to provide proper joint assistance and support to the development of a regional FMD control strategy;
- c. Support the Libyan Veterinary Services in the FMD control and a better understanding of their current epidemiological situation and FMD risks linked to animal movement and trade;
- d. Implement FMD early detection system and continuous risk based surveillance in Morocco, Algeria and Tunisia (borders and areas at risk);
- e. Support the development of the coordination framework - REMESA networks (webinar series);
- f. Depending on country commitment, finalize the development of RBSP in Mauritania and promote a regional laboratory network;
- g. Finalize the design and implementation of field vaccine studies, and promote risk based vaccination strategies in Morocco, Algeria and Tunisia;
- h. Support studies on risks associated to livestock value chain and animal mobility and trade.

7. Budget (€)

Total Budget WorkPlan activity 24 months (2017-2019)	Expenses Oct. 17 – Dec17	Expenses (forecast) Jan 18-Mar 18	% project completion (forecast)	Actual available (forecast)
326,000	9,658	25,000	10%	291,342

8.Gantt charts – Planned and Progress Update/revised programme

2.3 Support to REMESA	OUTPUT 2.3 Remesa: Assist national FMD risk management as part of the REMESA action plan		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
2.3.1 Actions to develop, adopt, and monitor implementation of RBSP for FMD control in Libya and Mauritania, and capacity to achieve and maintain PCP Stage 3 or 4 in Morocco, Algeria, Tunisia	2.3.1 Actions to develop, adopt, and monitor implementation of RBSP for FMD control in Libya and Mauritania, and capacity to achieve and maintain PCP Stage 3 or 4 in Morocco, Algeria, Tunisia	2.3.1.1 Training to assist national staff to complete RBSP in Mauritania					W S																			
		2.3.1.2 Socio-economic study on FMD in Mauritania	Activity completed; no further actions												Activity completed; no further actions											
		2.3.1.3 Support field FMD serosurveillance and outbreak investigations in Mauritania	Activity completed; no further actions												Activity completed; no further actions											
		2.3.1.4 Support lab. diagnosis in Mauritania																								
		2.3.1.5 Assistance on training (e-learning,) for nat. taskforce members based in Libya						E L	T M											E L						
		2.3.1.6 Support lab. diagnosis in Libya					L S								LS					L S					L S	
		2.3.1.7 Implementation of trainings and workshops to promote RB Surv., early detection and control progs in Algeria, Tunisia and Morocco				O M			W S		M	O M			O M			O M								
		2.3.1.8 Support lab. diagnosis in Algeria, Tunisia, Morocco					L S								LS					L S					L S	
		2.3.1.9 Support emergency preparedness and test emergency response in Algeria, Tunisia and Morocco																								
2.3.2 Coordination activities as needed to progress the REMESA Strategic Plan, including the establishment of an epi-network, and design of surveillance measures aimed improving security of sanitary barriers between countries or zones with different FMD situations	2.3.2.1 Support REMESA coord. activities		M							M					M						M					
	2.3.2.2 Implementation of epi-network between countries and development of a training credit system		W E B		W E B		W E B		W E B		W E B		WE B		W E B		W E B		W E B		W E B		W E B		W E B	
	2.3.2.3 Assistance and support to the development of a regional control strategy		M				M			M					M			M			M					
	2.3.2.4 Design surveillance system to be implemented in high risk areas and support with models and diagnostic kits the active surveillance																		W S		O M		O M		O M	
2.3.3 Activities to implement a reg. lab. network to provide improved disease risk information for planning of vaccination programmes, including vaccine banks, to support managers in REMESA	2.3.3.1 Support implementation of reg. lab. network in Maghreb and Western Sahel countries							W S			L S								W S		L S					
	2.3.3.2 Support the dev. of regional vaccine bank		M							M					M						M					
	2.3.3.3 Support the vaccination programmes with tools for designing, implementing, assessing					O M				O M				O M			O M			O M				O M		
	2.3.3.4 Support studies on risk associated to livestock value and animal mobility						V					V					V								V	

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 – March 2018

Component 2.4 – Training development and coordination



Pillar Manager: F. Rosso
Component Manager: J. Maud
Reporting: J. Maud
Focal point Executive Ctte: M. Blake

2.4 Training development and coordination

1. Objective of the component

The overall objective of this component is: Improved national and regional capacity for management of FMD through development and evaluation of training programmes for national staff.

The targets (expected results) are:

2.4.1. To have developed a wide range of PCP-FMD resources and training materials in various modes (e-learning, training of trainers, face to face, webinars) and languages for countries in Pillar II.

2.4.2. To have established a method of monitoring and evaluation of PCP-FMD training materials and resources to safeguard the uptake and appropriateness by the intended target audiences (beneficiaries).

2.4.3. Fit for purpose training courses and resources are available for wider use by neighbourhood countries which are largely appropriate and adaptable to the needs of the global community (Pillar III update/ GF-TADs)

Resource base

HR: HQ operational costs are identified for support of activities under Pillar II. 1 STP from Kazakhstan (shared with other components)

Budget : € 177,068 Agreed at ExCom 94 (including HQ based support services/costs)

Budget for activities (EC-TF): € 148,000 Agreed at ExCom 94 (excluding HQ based support services/costs)

2. Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	Fabrizio Rosso	Animal Health Officer
Component Manager	Jenny Maud	Training Programmes Manager
Network and training support	Nadia Rumich	Network and Training Officer
Co-ordination with components 2.1, 2.2 and 2.3	Pillar II component managers	Secretariat
ExCom oversight	Martin Blake	Executive Committee

3. Countries or partner organizations involved

Countries involved:

The direct beneficiaries of this component are the countries involved in Pillar II activities and listed as beneficiaries under components 2.1, 2.2 and 2.3. In some instances, and with the agreement of direct beneficiaries, training opportunities (particularly e-learning) may be extended to additional neighbouring countries. Additionally, it is intended that the training resources developed under this component will be repurposed for use for the wider global community under component 3.4.

Partner organizations:

The Royal Veterinary College, London, UK, (RVC) provide technical inputs and pedagogical advice in the development of training courses, particularly the Introduction to the Progressive Control Pathway e-learning course.

Online training courses already developed will be adapted and delivered in French through the partnership with CIRAD.

The Jordan University of Science and Technology (JUST) have signed a letter of agreement for the adaptation and delivery of the online Field Investigation Training Course in Arabic language, and for the development of additional online tools to provide training on local biosecurity to farmers and field veterinary staff.

4. Progress against indicators

Activities	Indicators	Baseline Sept.15	Target 4 years	Achieved March 18	Explanation of indicator
2.4.1	New courses developed after regional gap analysis	0	4	4 Socio-economic impact Risk Analysis Along the Value Chain; Field Investigation Training; Introduction to the Progressive Control Pathway; Post Vaccination Monitoring (in combo with PIII); FMD Laboratory Investigation Training Course (in comb with P III)	New online training courses developed, one course equivalent to 20 study hours
2.4.2	Percentage of training courses satisfying monitoring and evaluation criteria	0	100	100	Percentage of courses meeting M and E criteria

5. Reporting of activities

Reporting format	Responsibility	Output	Distribution	Sent out by
Six monthly report to ExCom	Component manager	Written report for ExCom	ExCom, STC	Network and Training Officer
Report on results of monitoring and evaluation of training courses	Component manager	Written report	Executive, summary to ExCom, STC	Component manager
Report on usage statistics of e-learning website	Component manager and Royal Veterinary College	Written report	Executive, summary to ExCom, STC	Component manager
Annual Report for General Session	Training Programme manager	Written report	Member States	Network and Training Officer

6. Progress report

Recruitment of Animal Health Officers on Short Term Placements (STP)

Dinara Imanbayeva (Kazakhstan), Ipek Keskim (Turkey) and Abdenacer Bakkouri (Morocco) have assisted with the training activities under component 2.4.

Output 2.4.1: To have developed a wide range of PCP-FMD resources and training materials in various modes (e-learning, training of trainers, face to face, webinars) and languages for countries in Pillar II

Regular communication has been established with nominated training focal points in each “Pillar II” country in order to guarantee an **ongoing needs assessment framework**. This includes feedback sent to focal points after each training course on the performance of their nominated participants, alongside regular updates of upcoming courses. We aim to use this network of focal points to consult on changes to training needs later in 2018. In addition, after every course, the feedback received guides future training development needs (see monitoring and evaluation framework).

The training needs assessment process was conducted prior to September 2016 and reported at the Executive Committee meeting held in September 2016.

A guideline **timetable for e-learning development and delivery** in 2018 under pillar II has been developed and is shown below:

New e-learning course development for Pillar II 2018												
Course	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Risk Based Strategic Plan Open Access												
Safer trade introductory modules												
French upgrading of FMD Investigation Training Course												
French language socio-economics												
French language post vaccination monitoring												
Russian language post vaccination monitoring												
E-learning course delivery for Pillar II 2018												
Course	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Post Vaccination Monitoring for Pillar II												
French Language Socio-economic impact assessment												
FMD Investigation Training Course in French												
FMD Investigation Training Course in Arabic												
FMD Investigation Training Course in Turkish												
FMD Investigation Training Course in Russian												
Russian Language Post Vaccination Monitoring												
French Language Post Vaccination Monitoring												
Progressive Control Practitioners' Network (funded PIII)												

Currently two new e-learning courses are under development:

1 - Risk-Based Strategic Plan

The learning objectives of this short online course are that by the end of the course the participants will be able to describe the position and purpose of the RBSP in the PCP-FMD framework; Include the results of the OIE-PVS evaluation and/or gap analysis to define the needs for strengthening the veterinary services on the control of infectious diseases in general and FMD in particular; Be able to convert risk hotspots, gaps and needs identified into component objectives for FMD control, and strategic risk-based tactics and activities; Be able to define monitoring and evaluation indicators using SMART approach; Be aware of the need for stakeholder consultation for the RBSP to be practically feasible and complied with; Consider the RBSP as a living document for policy development on FMD control.

One module of the short course has been piloted as part of the FMD Risk Analysis Along the Value Chain course (see reported below). The final short course will be made available as an open-access resource and additionally used as an online induction course prior to workshops on Risk-Based Strategic Plan Development.

2- Safer Trade

A workshop on Safer Trade and FMD is being developed, in co-ordination with the OIE, under component 2.1.

This course will have an online induction course which participants will follow in the month prior to the workshop, providing a solid basis in theoretical concepts so that the workshop itself can be interactive and simulation based.

The learning objectives of the online induction course are that after completion of the e-learning, participants will be able to Describe the obligations of WTO Member States with respect to international trade, as specified in the SPS Agreement; Identify the role of the OIE in the SPS Agreement, and know where to find the relevant standards; Explain the features of FMD virus infection and epidemiology relevant to international trade; Explain how the PCP-FMD is relevant to safe trade; Define 'risk' in the context of international trade, and explain its relevance to trade.

For objectives one and two new e-learning modules are being developed. Following the training course the modules will be made available as open access e-learning resources.

Delivery of training courses

The following e-learning courses have been delivered to Pillar II countries in the period September 2017 to March 2018:

1-FMD Investigation Training Course in Russian

(See also component 2.1)

This course was conducted in October 2017 entirely in Russian. The learning objectives were that after studying this course the participants would be able to: recognize the clinical signs of foot-and-mouth disease in cattle, pigs and small ruminants and conduct a clinical examination of suspected animals; Age foot-and mouth disease lesions and understand the epidemiological and diagnostic importance of lesion ageing; Take appropriate samples for laboratory diagnosis and describe the diagnostic tools available for the detection of foot-and-mouth disease; Construct a timeline to carry out source and spread tracing and identify dangerous contacts, being able to prioritize them; Identify risk factors for local disease spread; Describe the basic principles of biosecurity; Describe the risks of foot-and-mouth virus spread associated to veterinary personnel and relate the characteristics of the virus with appropriate biosecurity strategies; Use personal protective equipment (PPE) effectively and establish an effective cleaning and disinfection protocol for visiting foot-and-mouth disease suspected premises; Understand the key features of foot-and-mouth disease vaccines and the basic concepts related to vaccine programme implementation and monitoring; Understand the different epidemiological settings that determine the objective of a foot-and-mouth disease vaccination programme and outline different vaccination strategies; Describe key features of an effective emergency vaccination programme; Understanding the key features of the Progressive Control Pathway; Understand the key concept of the Global Foot and Mouth Disease Control Strategy.

The course involved 12 hours study over a four week period and included two live webinars and a tutored discussion forum.

There were 190 participants from 11 countries (Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Uzbekistan, Ukraine) who were nominated by the National Focal Points of the countries. 52 of the participants who were nominated for the course (27%) completed the course, considerably lower than the completion rates achieved in European settings. This was attributed to a combination of internet access issues and inappropriate nomination of participants.

The feedback from those who completed the course was overwhelmingly positive with 77% of survey respondents rating the course as very good overall:

2-FMD Risk Analysis Along the Value Chain

This “in-depth” online course took place in October and November 2017 and involved 55 nominated participants from Pillar II countries and associated FAO country and regional offices.

The learning objectives of the course were to increase confidence to conduct a risk analysis and value chain mapping, and use this directly in work to develop or implement the FMD control strategy in your country. In particular, to apply the key concepts and principles of risk analysis; map value chains in order to identify disease transmission risks and control options; assess the impact and feasibility of candidate risk mitigation measures; apply lessons learnt to the develop a Risk-Based Strategic Plan for FMD control.

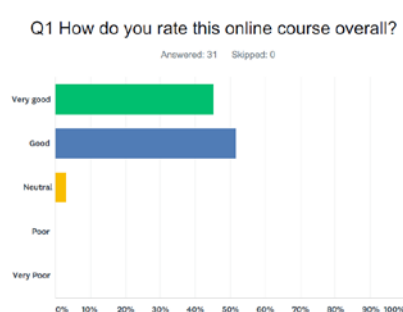
The course involved four hours study per week over a six-week period, with participants working in country groups to complete an assignment each week.

65% of those nominated by countries completed the course, which is considerably higher than experienced for other courses of this type, where the time involved is particularly challenging for participants.

The breakdown of course completion was as follows:

Country	Nominated	Completed
Armenia	3	1
Azerbaijan	2	0
Egypt	6	6
Georgia	4	0
Jordan	4	4
Kazakhstan	1	1
Lebanon	2	0
Libya	7	4
Morocco	5	4
Palestine	5	5
Tunisia	4	2
Turkey	5	4
FAO officers	7	2

Participant feedback was sought in an online forum and their overall feedback given is shown below:



The high participation rate by many counties, and qualities of work produced in the assignments for this course were a particular highlight of this online course.

3-Post Vaccination Monitoring

This course started in February 2018. It is the second edition of the Post Vaccination Monitoring online course, with the first edition having been conducted for Pillar III countries under components 3.2 and 3.4.

Output 2.4.2: To have established a method for monitoring and evaluation of PCP-FMD training materials and resources to safeguard the update and appropriateness by the intended target audiences and beneficiaries and 2.4.2.1 Development of monitoring and evaluation methodology and 2.4.2.2 Monitoring and evaluation of training

All training courses are evaluated by an online feedback survey immediately after the workshop, with summative assessments to verify participant's knowledge used at the end of online training courses. A protocol for evaluation of each training course, based on the evidence provided by the survey and assessments has been developed. All results of surveys and evaluation documents are stored on a dedicated "trainers" section of the EuFMD e-Learning platform, and are shared with relevant nominating organizations.

Output 2.4.3: Fit for purpose training courses and resources are available for wider use by neighbourhood countries and are largely appropriate and adaptable to the needs of the global community

The open access introductory e-learning course on the PCP has been made available as a freely available open access resource globally. The Field Investigation Training course is used for both pillar II and pillar III countries. As illustrated by the Socio-Economic Impact Assessment course, some places on the "in-depth" e-learning course will be made available to non-Pillar II countries, through collaboration with FAO and OIE partners.

6. Issues for Executive Committee attention arising during implementation

A key upcoming priority is the translation of the English language e-learning courses that have now been developed into French and Russian, and their delivery in these new languages. A delivery partner (CIRAD) has been identified and contracted for the delivery of French language e-learning. A similar delivery partner(s) and Russian language experts are now being sought.

The low completion rate in the Russian language online course is disappointing and merits further investigation.

7. Priorities for the next six months

The next six months will focus on:

- Development of the following e-learning courses:
 - Risk Based Strategic Plan e-learning;
 - Safer Trade e-learning induction course;
 - French language FMD Socio-economic Impact Analysis.
- Delivery of the following e-learning courses:
 - FMD Post Vaccination Monitoring;
 - Safer Trade induction course;
 - French language FMD Socio-economic Impact Analysis;
 - FMD Investigation Training Course in Arabic;
 - FMD Investigation Training Course in French;
 - FMD Investigation Training Course in Turkish.
- Further in-depth analysis of the monitoring and evaluation framework for e-learning and training programmes (see also components 1.1.1 and 3.4).
- Identification of partners for Russian language e-learning.
- Continue improvement of the monitoring and evaluation system of e-learning

8. Success stories and further emphasis

The Risk Analysis Along the Value Chain e-learning course was a particular success, with high completion rates, enthusiastic participation of a number of pillar II countries and quality assignments produced.

The interest and enthusiasm generated by the February Post Vaccination Monitoring e-learning demonstrates the need for increased capacity in this area across the pillar II region, and this area will be focused on, not only in the e-learning course but also in follow up workshops and activities across Pillar II.

The new e-learning and training courses on Safer Trade are an important new addition to EuFMD's repertoire with the potential for high impact across pillar II and beyond.

8. Budget

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
148,000	24,904	30,000	37%	93,096

9. Updated Gantt Chart Currently, there is no deviation from planned activities.

OUTPUT 2.4 National and Regional Capacity for the Management of FMD through dev. and evaluation of training programmes for national staff		YEAR 1												YEAR 2											
Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
2.4.1 Develop new courses after completion of regional needs and capacity assessment	2.4.1.1 Implement ongoing needs assessment framework																								
	2.4.1.2 Pillar II component managers conduct needs assessment	Activity completed; no further actions																							
	2.4.1.3 Research existing training resources available	Activity completed; no further actions																							
	2.4.1.4 Plan for training courses and resources to be developed and delivered is completed																								
	2.4.1.5 Development of training courses and resources																								
	2.4.1.6 Delivery of training courses and resources																								
	2.4.1.7 Clear structure for delivery costs of training courses set up	Activity completed; no further actions																							
2.4.2 Monitoring and evaluation of training	2.4.2.1 Monitoring and evaluation of training occurs	Activity completed; no further actions																							
	2.4.2.2 Courses adapted as necessary following results of monitoring and evaluation																								
	2.4.2.3 Courses adapted as necessary following results of monitoring and evaluation																								
2.4.3 Development of courses and resources that are also largely appropriate and adaptable to the needs of the global community (Pillar III uptake/GF-TADs)	2.4.3.1 Training materials and resources are designed to be readily translated and adaptable																								

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 3.1 - *Improved system for monitoring and evaluation of progress of regional programmes on FMD control*

Pillar Manager: N.Lyons

Component Manager: N. Lyons / N. Rumich

Reporting: N.Lyons

Focal point Executive Ctte

3.1 IMPROVED SYSTEM FOR MONITORING AND EVALUATION OF PROGRESS OF REGIONAL PROGRAMMES ON FMD CONTROL

1. Objective of the component

The overall objective of this component is: *to improve the system of monitoring and evaluation of regional programmes on FMD control*

OUTPUTS (EXPECTED RESULTS):

Support the activities of the FAO-OIE FMD working group including support for producing relevant reports and providing follow-up between roadmap meetings; Development of the GF-TADs website for relaying the results of PCP-FMD Roadmap meetings; Provide relevant training to the activities of the FAO-OIE working group including expert missions as indicated.

Specific Outputs:

1. Gather information, author reports for the FMD Working Group;
2. Activities to support global communication of the PCP situation.
3. Provide training support to the FAO:OIE working group activities.

DIRECT INVOLVED BENEFICIARIES: Activities under this component assist the GF-TADs FMD Working Group in advancing Global FMD Control Strategy

RESOURCE BASE

- HQ based: Staff 2% - Consultant 49.7% (Operational and Technical)
- Budget for activity: 89,894EUR excluding HQ and support costs, total: 116,446 EUR

2-Project team

Role	Name	Status
Pillar Manager	Nick Lyons	Animal Health Officer
Component manager	Nick Lyons/Nadia Rumich	EuFMD
GFTADS-FMD WG	Samia Metwally Laure Weber-Vintzel	FAO OIE
National consultants:	Not applicable	
ExCom oversight		

3-Countries or partner organizations involved

Countries involved: this component involves collection of data at a global level from countries working through the PCP-FMD, and support through roadmap meetings to regional groups.

Activities under this component are carried out in order to assist the activities of the GF-TADs FMD Working Group.

4-Progress against indicators

Activities	Indicators	Baseline	Target 2 years	Unit of measure	Current Status
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Sept 2015					
3.1.1	Gather information, author reports for the FMD Working Group	4	4	Number of reports	0
3.1.2	Activities to support global communication of the PCP situation	0	50% increase	Website usage statistics	0
3.1.3	Provide training support to the FAO/OIE working group activities	1	1	International training events	1

Progress Report

Progress in this component is reliant on receiving relevant requests from the FAO-OIE FMD working group. There has been no recent progress on the annual Global FMD report. Meetings have been held with the current staff in charge of the GFTADs website and an intern has been recruited to begin work on the website. A Letter of Agreement is in process to secure support from IZSLT (*Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana*) in assisting the FAO-OIE FMD working group in providing training support and expert missions including support between PCP-FMD Roadmap meetings.

5. Priorities

Recruitment of Short Term Placement to assist and co-ordinate the activities of the component.
Further consultation with the GF-TADs FMD working group.

6. Budget

Total Budget Workplan activity 24 months	Expenses (actual) Oct 17 – Dec. 17	Expenses (forecast) Jan 18-Mar 18	% project completion	Forecast available
86,894	7,885	15,000*	26.3	64,009

*IZSLT and CIRAD LoA

7. Gantt Chart

3.1 Support to Global Progress monitoring	OUTPUT 3. Improved system for M&E of the progress of regional programmes on FMD control		YEAR 1												YEAR 2											
	Target (Expected Result)	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	3.1.1 Gather information, author reports for the FMD Working Group	3.1.1.1 Information gathering																								
		3.1.1.2 Provide support to monitoring and evaluation activities of FAO-OIE FMD Working Group including contributions to reports (subject to requests) and providing follow-up between roadmap meetings																								
	3.1.2 Activities to support global communication of the PCP situation	3.1.2.1 Website (in collaboration with FAO:OIE working group)		O M			W S		O M		O M		O M													
	3.1.3 Provide training support to the FAO:OIE working group activities	3.1.3.1 Contribute to training 12-15 experts on FMD control measures to support countries when requested					W S		O M		O M		O M													
		3.1.3.2 Collaborate with FAO and OIE to support two or three expert team missions each year		T M	T M	T M		W S						W S					W S				WS			

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 3.2 – *Support to Global Progress Monitoring of FMD Control programmes*

Pillar Manager: N. Lyons

Component Manager: C. Bartels

Reporting: C. Bartels

Focal point Executive Ctte

3.2 PROGRESSIVE CONTROL PATHWAY (PCP)

1. Objective of the component

The overall objective of this component is: *to enhance the international capacity for the application of the EuFMD/FAO/OIE PCP-FMD through development of tools, guidelines and knowledge transfer.*

OUTPUTS (EXPECTED RESULTS):

Dissemination of the principles and applications of PCP-FMD, primarily for countries endemic with FMD but including EuFMD member states and neighbourhood; Developing guiding documents (guidelines and technical notes), trainings and workshops on PCP-FMD

Specific Outputs:

1. PCP toolbox developed for PCP-FMD user community, including guiding documents developed for joint FAO/OIE application;
2. System for training PCP-FMD experts well established and supported by resources.
3. Representation in regional roadmap meetings, FAO/OIE FMD working group and EuFMD executive meeting

DIRECT INVOLVED BENEFICIARIES: the FMD WG of FAO/OIE; international pool of expertise at national and regional level that utilise the PCP in their work with countries, including European neighbourhood; and Pillar 2 activities of EuFMD that will use the guidelines/training resources.

RESOURCE BASE: as bullet points and

- **HR: Management** P5 (10%), P2 (5%). Products/Activities: developed with 3 consultants.
- **Budget for Activities** (EC - TF): *excludes HQ based support services/cost:* €155,954

2-Project team

Role	Name	Status
Pillar Manager	Nick Lyons	Animal Health Officer
Component manager	Chris Bartels	EuFMD consultant
GFTADS-FMD WG	Samia Metwally Laure Weber-Vintzel	FAO OIE
National consultants:	Not applicable	
ExCom oversight		

3-Countries or partner organizations involved

Application of PCP-FMD is worldwide, particularly for endemic situations (PCP-FMD Stage 1-3). Therefore, there is no tailoring to specific countries. EuFMD will work with FAO and OIE where appropriate in developing these tools and guidelines.

As West Eurasia (component 2.1), South-east Mediterranean (component 2.2) and North Africa (component 2.3) are focal areas for EuFMD, new developed PCP-FMD tools and training may well be first applied in these regions.

4-Progress against indicators

Activities	Indicators	Baseline Sept 2017	Target 2 years	Unit of measure	Current Status
3.2.1	Development and Revision of PCP guidelines for joint FAO/OIE application	5	6	Number of guidelines	5
3.2.2	Training of PCP-FMD experts	6	30	Number of people trained	50
3.2.3	Support the facilitation of regional roadmap meetings, their follow-up actions and associated training or assessment processes	4	a) 5 b) 5 c) 2	a) No of roadmaps supported by EuFMD b) Between roadmap meeting webinars c) Workshops for RAP development	a) 2 b) 1 c) 0

Progress Report

Outcome 1: PCP toolbox further developed for PCP-FMD user community, including norms set, guiding documents developed for joint FAO/OIE application

The revision of the general PCP guidelines was finalized through an intense review process of the OIE/FAO FMD Working Group. Subsequently, the EuFMD has and are updating existing materials and online training resources to include the major changes to the PCP guidelines.

For countries in PCP-FMD Stage 0, the template for the “Risk Assessment Plan” developed by EuFMD was finalized by the FAO/OIE FMD Working Group. At the time of writing, it is anticipated that the FMD Working Group is going to call for a webinar to explain the template and to support countries in West Africa to develop the RAP. EuFMD will support these countries in doing so.

Based on the FAO/OIE guidelines on Post-vaccination monitoring, EuFMD conducted an online-training course for the SAARC and SADC region between September and October 2017 (reported under 3.4).

The materials of the online training on “Assessment of the socio-economic impact of FMD” (an online training conducted for veterinary staff of Pillar II and Pillar III countries (75 participants) between May and June 2017) are due to be reviewed by CIRAD under a LoA prior to conducting the same online training in French. Concurrently, this review will provide the impetus to convert this training material into a technical paper (instead of a guideline) on “How to conduct socio-economic impact assessment of FMD?”

Outcome 2: System for training PCP-FMD experts well established, and as part of the GF-TADS led implementation of the GF-TADS strategy, contributes to national and regional PCP progress

- Needs for PCP-FMD training in Asia and Africa (activity 3.2.2.1) are investigated in part with components 2.4, 3.3 and 3.4. Assessment of PCP-FMD related training in Asia and Africa formed the basis for multiple online training courses as indicated under Output 1.
- Training for FAO/OIE regional officers is an ongoing discussion for the FMD Working Group: the actuality of the training, the selection of appropriate FAO and OIE regional staff and sustained support for those trained and applying the training. The same applies for the training of FMD Experts on the PCP-FMD. The FMD Working Group is currently reviewing a core list of FMD experts for this training.
- As a result of the most recent MENA workshop, the Kingdom of Saudi Arabia requested a follow-up workshop on supporting the development of a risk-based strategy plan. The FMD Working Group is discussing the idea to extend such workshop to other countries in the region. It is foreseen to conduct such workshop in Spring 2018.

Outcome 3: The GF-TADS system for PCP assessment is maintained and/or further improved, and the quality and impact of regional roadmap meetings in at least 3 regions further improved

EuFMD participated in the MENA regional roadmap meeting in Amman, Jordan in October 2017, and was part of the epinet and labnet workshop for West Eurasia in 2017. At this point in time, no dates are known for regional roadmap meetings later this year. Plans are currently under development to provide more support to countries between roadmap meetings.

5-Issues for Executive Committee attention arising during implementation

An issue for the Executive Committee's attention is that activities under this component are entangled with activities under components 2.4 and 3.4 in which training needs are addressed. In particular the PCP Practitioner Network intends to establish a network of active users in FMD endemic countries in Africa and Asia of the PCP through monthly themes with development of presentations, exercises and job-aids. These materials are the basis for additional training (online or workshops in country) of veterinary officers.

Although, the vision of the FAO/OIE FMD Working Group is defined, it remains an issue to implement activities under outputs 2 and 3. As repeatedly indicated, there is a need to provide more direct support to individual countries, particular those repeatedly assessed as being in a provisional stage by the Regional Advisory Group (RAG). In January 2018, EuFMD has forwarded a proposal to the FAO/OIE FMD Working Group to follow-up activities from regional roadmap meetings. This proposal introduces the concept of a PCP-support officer (PSO) to provide follow-up to individual countries between roadmap meetings:

1. The PSO will liaise with the country PCP focal points and the local or regional FAO and OIE offices to follow up the recommended actions of the WG/RAG including providing technical advice where appropriate;
2. The method of follow-up provided by the PSO will be tailored to the individual needs of the country but will potentially include follow up communications and online meetings with a nominated focal-point in each country. In occasional instances country missions may be performed if deemed necessary and if funds are available;
3. PSOs will provide a summary of all their activities to EuFMD and the WG;
4. A list of PSOs, their specialism(s) and their geographical areas of interest will be produced. This action will also highlight deficits in particular regions and indicate areas for training in PCP-FMD.

A short-term professional (STP) supervised by EuFMD will support the activities of PSOs to individual countries based on the type of support required and at the instruction of the WG and RAG. It is not anticipated that every country will need a PSO, only those in provisional stages and if deemed appropriate by the WG/RAG.

Table 1. Countries in provisional PCP-FMD stages by region from the latest Roadmap meeting.

Region	Date of latest Roadmap meeting	PCP-FMD stage	Countries in provisional stage
East Africa	October 2014	1	South Sudan
		2	Sudan
Middle East	October 2017	2	Bahrain, Iraq, Jordan, Lebanon, Saudi Arabia, Syria, UAE
		3	Kuwait
SAARC	December 2016	1	Bangladesh
		2	Afghanistan
SADC	September 2017	1	DRC
		2	Malawi, Mozambique, Tanzania, Zimbabwe
West Africa	September 2016	1	Benin, Burkina-Faso, Côte d'Ivoire, Guinea, Guinea-Bissau, Niger, Togo
West Eurasia	April 2016	2	Kyrgyzstan

The STP and PSOs will be funded under Pillars II and III of the EuFMD workplan. Currently there are 25 countries in provisional stages (see table above) which will be prioritized for support in the initial phase of this proposal. It is expected for each of these countries country, one day of consultancy will be required equivalent to approximately €10,000 to be provided by output 2.2.3 or 2.2.4 for Pillar 2 countries and 3.2.3 for Pillar III countries. Missions will be funded by outputs 2.2.3, 2.2.4 and 3.1.3 as appropriate depending on funds available.

EuFMD was invited to take part in the last FMD Working Group meetings. This has facilitated a better understanding of the near-future plans laid out by the FMD Working Group and more direct collaboration between EuFMD and the FMD Working Group.

In the GANTT chart below, progress is indicated alongside the original planning.

5. Areas proposed to give more attention/emphasis in the next 24-month period

With the Global Strategy for FMD control in place for just over five years and the PCP-FMD approach being taken up well by the international communities with multiple groups using the approach for controlling other infectious diseases (Rabies, PPR, Trypanosomiasis), it is suggested to conduct an in-depth review of the PCP approach with the reality of progressive control of FMD in FMD-endemic countries. This in-depth review should answer questions such as:

What are the tangible changes in countries progressing on the PCP-FMD in terms of:

- FMD incidence and impact:
- Strengthened capacities of the Veterinary Services in the fields of outbreak investigation, risk analysis and monitoring and evaluation;
- Sustained long-term control of FMD integrated with other priority infectious diseases through policy development and stakeholder consultation mechanisms.

7. Budget

Total Budget Workplan activity 24 months	Expenses Oct. 15 –Dec. 17	Expenses Jan. – Mar. 18	% project completion	Actual available
155,954	14,230	29,230	28%	112,494

8. Gant chart

3.2 Methods and guidelines for application of PCP-FMD	OUTPUT 3.2 Improved capacity, methods, and guidelines for application of the EuFMD, FAO and OIE progressive control pathway (PCP) for FMD		YEAR 1												YEAR 2											
	Target	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
	3.2.1 Dev. and Revision of PCP guidelines for joint FAO:OIE application	3.2.1.1 Revision of general PCP-FMD guidelines																								
		3.2.1.2 Support to developing guidelines on socio-economic impact assessment of FMD																								
		3.2.1.3 Dev. additional guidelines relevant to PCP-FMD stage 0-3 (incl. that requested by the FAO/OIE WG) including: RAP, NCP, conducting sero-surveys; value-chain analysis; risk assessment; stakeholder consultation; PCP check lists.																								
		3.2.1.4 In response to country requests, development and broadcasting of e-learning materials including organizing PCP-FMD e-learning courses for countries in stage 0-3 (in line with activities under components 2.4, 3.3 and 3.4)																								
	3.2.2 Training of PCP-FMD experts	3.2.2.1 Explore financial resources for training PCP-FMD experts																								
		3.2.2.2 Support the dev.t of PCP-FMD experts training prog																								
		3.2.2.3 Support and maintain a network of PCP-FMD experts through their involvement with the PCP Practitioners Network (see comp 3.4)																								
		3.2.2.4 Explore ways to accredit PCP-FMD trainers (see also comp3.4)																								
3.2.3 Support facilitation of reg.roadmap meetings, follow-up actions and associated training or assessment processes	3.2.3.1 Support the facilitation of regional roadmap meetings (MENA, West Eurasian, Eastern Africa, SADC, SAARC, others), including reporting																									
	3.2.3.2 Support to follow-up on Target (Expected Result) and actions agreed during the regional roadmap meetings																									
	3.2.3.3 Adaptation of PCP-FMD assessment materials and procedures at reg. roadmap meetings, dependent on revision of PCP-FMD guidelines (activity 1.1) and request from FMD-Working Group.																									

EuFMD Phase IV

Report to the EuFMD Executive

Period October 2017 - March 2018

Component 3.3 - *Laboratory support*

Pillar Manager: N. Lyons

Component Manager: K. van Maanen

Reporting: K. van Maanen

Focal point Executive Ctte:

3.3 Laboratory support

1. Objective of the component

The overall objective of this component is:

improved international FMD reference laboratory services and their contribution to regional epidemic-surveillance networks

This component will continue to give support for improved international FMD reference laboratory services and their contribution to regional epidemic-surveillance networks. The outputs of this component should result in an increased level and quality of surveillance information from the OIE/FAO Lab Network, with progress towards the targets required for regional roadmap vaccine priority setting in at least the 4 priority virus pools (pools 4, 5 and 6 in Africa and pool 3 in West Eurasia).

Most activities under this component will be subcontracted to the Foot-and-Mouth Disease World Reference Laboratory (WRLFMD) under a Letter of Agreement (LoA) between FAO and The Pirbright Institute (TPI). Expected results include: improved coordination and international harmonization in methods and other support to activities by the OIE/FAO global FMD laboratory network; a level of international surveillance performance in priority virus pools and countries that meet or exceed minimum the required for regional vaccine match recommendations; through diagnostic activities managed by the WRL, epidemic-surveillance networks in priority pools that function effectively in gathering, sharing and improved use made of surveillance information; and support for a global proficiency test scheme to include 12 laboratories in the global network.

Activities will in 2017-19 re-invigorate regional laboratory networks, with better epidemiology linkages, to ensure better technical expertise development at regional levels, underpinning surveillance and regional roadmaps. The Foot-and-Mouth Disease Laboratory Investigation Training Course (FLITC) for which modules have been developed by TPI has been delivered for the first time in October 2017 in collaboration between EuFMD will be delivered again at least once in 2017 – 2019.

In West and Central Africa, the initial focus will be on identifying regional partners for collaboration, and a thorough assessment of competency gaps, training needs and appropriate training modalities for the region (see also component 3.4). We will explore the use of Francophone institutions with existing experience in the region as delivery partners for relevant projects with the aim to subcontract activities under a LoA. Considering the significant gaps in virological surveillance and disease intelligence in West and Central Africa, local partners have already been sought to undertake a project to enhance surveillance through the use of lateral flow devices working with the newly appointed EU FMD reference laboratory at ANSES.

OUTPUTS (EXPECTED RESULTS):

1. Coordination of international harmonization in methods and support activities by the OIE/FAO global FMD laboratory network.
2. Support to international surveillance performance in 3 priority virus pools including sample shipment, training and supervision of Regional Support Laboratories (RSLs) to meet or exceed minimum surveillance requirements.
3. Development and implementation of training materials and courses for epidemic-surveillance networks in 3 priority pools.
4. Support for a global proficiency test scheme, to include 12 laboratories in the global network

DIRECTLY INVOLVED BENEFICIARIES: The direct beneficiaries from this component are the WRLFMD and all countries that submit samples and make use of the epidemiological and vaccine matching advice provided. Also the laboratories in the global network that benefit from the proficiency tests and other laboratories that benefit from the training provided. Finally the partners in West and Central Africa who will be delivering on the surveillance project in development.

RESOURCE BASE

HR: HQ operational costs € 11,887

Budget for Activities (EC - TF): *excludes HQ based support services/costs.*

€ 628,772 (€ 455,106 contracted to WRLFMD).

2-Project team

Role	Name	Status
Pillar Manager	Nick Lyons	Animal Health Officer
Component manager	Kees van Maanen	EuFMD
STC members involved in oversight role	Stephan Zientara (lab) Nick Lyons (epi)	STC
Contractor	The Pirbright Institute- Donald King	Head, World Reference Laboratory, Pirbright
FAO Contact		Lab Unit coordinator, FAO
Excom oversight	TBC	Executive Committee

3-Countries or partner organizations involved

FAO and OIE developed the joint global laboratory network proposal in collaboration with the World Reference Laboratory at the Pirbright Institute.

4-Progress against indicators

Activities	Indicators	Baseline Sept 2017	Target 2 years	Unit of measure	Current Status
3.3.1	Number of OIE/FAO Laboratory Network meetings	2	4	Annual International Meeting	3
3.3.2	Number of samples typed in relation to minimum surveillance requirements per pool	0	6	Number of pools where target reached (120 samples per year per target pool from at least 5 countries)	0
3.3.3	Number of new modules for e-learning and training on laboratory surveillance meeting quality standards	0	3	e-learning modules	1
3.3.4	Number of laboratories supported to take part in global proficiency testing scheme annually	0	10	Laboratories taking part in proficiency testing scheme annually	0

Progress Report

Output 1. Coordination of international harmonization in methods and support activities by the OIE/FAO global FMD laboratory network.

The 12th OIE/FAO FMD Laboratory Network Meeting was organised in Pretoria, South Africa 28th – 30th of November 2017. The meeting started with a closed session, followed by an open session and lasted three days, thus creating more opportunities for discussion and interactions. A summary report of the meeting is available. The OIE/FAO FMD Reference Laboratory Network is a vital contributor to the global control of FMD and provides opportunities and expertise for developing and sustaining laboratory capacity and capability, exchange of materials and technologies, harmonising approaches to diagnosis and supporting complementary research. Laboratories within the network regularly receive samples for FMD diagnosis from many parts of the world. The in vitro antigenic properties of selected isolates are assessed for vaccine matching and nucleotide sequencing allows precise characterisation of new isolates and tracing of their origin by comparison with viruses held in virus collections. This analysis assists the monitoring of the 'real time' emergence and spread of FMD virus globally.

The text of a Memorandum of Understanding (MoU) that describes the working relationship between the 15 OIE and FAO Reference Laboratories that have responsibility for FMD has been drafted by WRLFMD and agreed by all partners (via the Annual meetings and follow-up teleconferences), and OIE and FAO. The final version of the document has been circulated during 2017 for official signatures.

Exchange of viral sequence data is occurring regularly, for example in the previous two years WRLFMD has exchanged viral sequence data with the OIE/FAO global FMD laboratory network (and other laboratories) including BVI (Botswana), PD-FMD (India), RAHO 6 (Vietnam), APQA (South Korea), LVRI (China) FGBI-ARRIAH (Russia), OVI (South Africa), KVI (Israel), CODA-CERVA/NVRI, (Belgium/Nigeria) JUST (Jordan), SAP Institute (Turkey), ANSES (France), IZSLER (Italy), VRI (Sri Lanka). Where new sequence data has been provided to WRLFMD, genotyping reports have been prepared and circulated to OIE and FAO.

Collaborative studies involving WRLFMD included the coordination and exchange of information associated with the emergence and spread of the viral lineages, evaluation of FMDV vaccines and the development of new diagnostic tests (see publications: Bachanek-Bankowska et al., 2016; Knowles et al., 2016; Eldaghayes et al., 2017; Qiu et al., 2017; Ularanu et al., 2017; Lyons et al., 2017; Saduakassova et al., 2017; Howson et al., 2018; Souley Kouato et al., 2018).

Recent achievements of the OIE/FAO Foot-and-Mouth Disease Reference Laboratory Network:

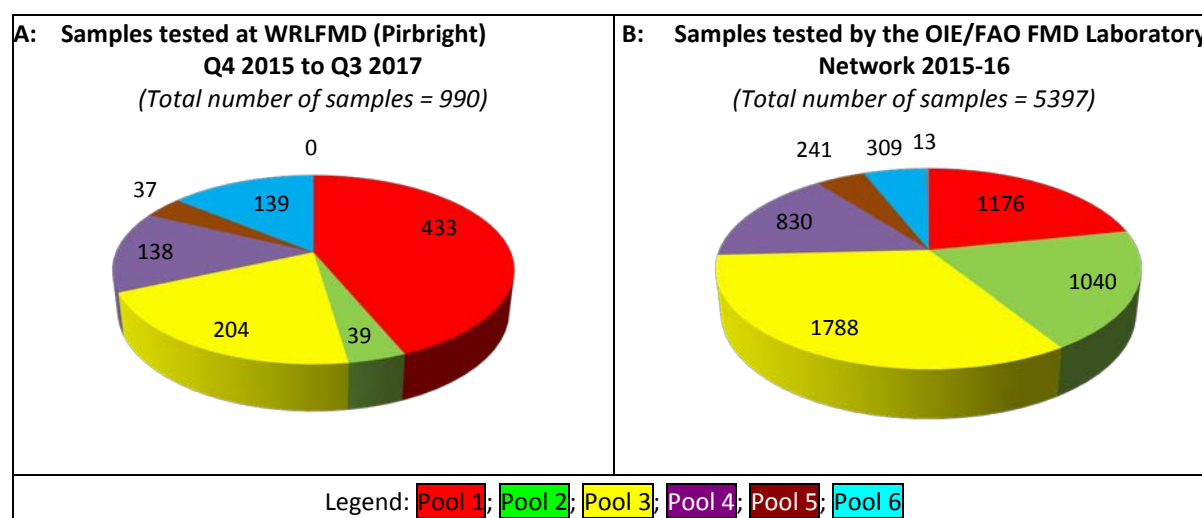
- Agreement on a memorandum of understanding (MoU) to cover Network activities.
- Initiated and contributed expertise to an OIE Resolution relating to FMDV serotype C (http://www.oie.int/fileadmin/Home/eng/About_us/docs/pdf/Session/2017/A_RESO_2017_Public.pdf adopted by the OIE-GS in 2017).
- Rapid exchange of data to track the recent spread of emerging FMDV lineages in Asia.
- Publication of the 2016 Annual Network Report summarising the global situation regarding the distribution of FMD in different regions of the world (<http://www.foot-and-mouth.org/publications/oiefao-fmd-laboratory-network-2016>).
- Contributed expertise to an updated chapter (Chapter 2.01.08) of the OIE Terrestrial Manual that covers diagnostic tests for FMD (approved in May 2017).
- Prepared a draft outlining an inter-laboratory exercise for FMDV vaccine-matching (to be submitted for publication shortly).

Output 2. Support to international surveillance performance in 3 priority virus pools including sample shipment, training and supervision of Regional Support Laboratories (RSLs) to meet or exceed minimum surveillance requirements

Over three thousand clinical samples from suspect cases of FMD were tested by laboratories in the Network (and associated laboratories) during 2016. However, sampling within these pools is not equivalent: surveillance

within West Africa (Pool 5) is particularly sparse and efforts are currently underway to collaborate with local partners to enhance sampling for FMDV in this region.

Under the previous LoA covering the period Q4 2015 – Q3 2017 WRLFMD has tested about 500 virological samples per year and the network altogether has tested about 2,700 virological samples per year (see figure below).



Training and supervision to regional support laboratories: in this reporting period, the WRLFMD staff have provided training in a range of FMD diagnostic and field methods as part of an OIE Twinning Project with NAHDIC in Ethiopia (covered under a separate OIE contract). In the previous two years, the WRLFMD continued to provide two-week practical training courses in FMD diagnostics which have involved delegates from Albania, Malta, Sweden (for 2016), and Israel, Lithuania, New Zealand and Singapore (for 2017). This course covers practical instruction in virological and serological diagnostic methods including virus isolation, real-time RT-PCR, sequencing, Ag-ELISA, SP and NSP serological methods, VNT and vaccine-matching. In addition, tailored courses have been offered at Pirbright to cover RT-PCR methods (2 delegates from Botswana in 2016, and one student from Kazakhstan in 2017), FMD serology (1 delegate from Ireland in 2017), as well as visits to overseas laboratories to deliver specific training in real-time RT-PCR (Kenya; travel for two WRLFMD staff funded under this LoA), sequencing (Tanzania) and vaccine-matching (South Korea). Written advice (via email) on FMD diagnostic methods has been regularly provided to FMD Reference laboratories in many different countries on multiple occasions.

Output 3. Development and implementation of training materials and courses for epidemio-surveillance networks in 3 priority pools

To revitalise the networks in East Africa, a core group was formed to organize a series of webinars and online meetings. Since February 2016 these have been organized on a monthly basis. In 2016, nine webinars were organised, and the structure has been amended after discussions in the core group and feedback from the audience. In 2017 it appeared quite difficult to organize webinars. However, a major achievement of WRLFMD has been the recent development of new eLearning modules for field investigation, diagnostic methods and quality assurance. Specific funding to cover the generation of the eLearning packages was provided by BBSRC (UK), but technical content and oversight of the project came from WRLFMD staff and all the material was reviewed by EuFMD staff. EuFMD provided the Elearning platform and expertise and hosted the first **FMD Laboratory Investigation Training Course (FLITC)**. This joint WRLFMD/EuFMD FLITC course was successfully provided to >100 scientists during October 2017 with three webinars co-hosted by WRLFMD and EuFMD (inputs and outputs under components 3.3 and 3.4 of the EuFMD work program).

Networks in West Africa also need to be revitalised. Since most countries in pool are Francophone, a Francophone network has been set up under the EuFMD umbrella with the valuable assistance of Dr Labib Bakkali-Kassimi, ANSES, Maisons-Alfort, Paris. In 2017, four webinars have been organized with the following topics: 1) Réseau francophone pour le contrôle de la fièvre aphteuse - lancement du réseau et de ses activités; 2) Situation épidémiologique de la fièvre aphteuse et les mesures à prendre pour une détection précoce; 3) Cartographie des risques et leurs utilités dans le contrôle de la fièvre aphteuse; 4) Impact socio-économique de la fièvre aphteuse et le rôle du commerce transfrontalier du bétail dans l'amplification et la dissémination des maladies.

In West Eurasia (pool 3) networks also need to be revitalised. Steps forward for development of the West Eurasia networks Epi-net and Welnet in support of better information share have been discussed during the West Eurasia networks online meeting: West Eurasia Networks-discussion on regional needs and networks activity plans proposals, carried out on 11th May 2017, and were discussed in more detail during the "First Regional West Eurasia FMD Epidemiology and Laboratory Networks Meeting" in Tbilisi, Georgia on 18-20 September, 2017. The aim is to support sustainable regional networks development, to promote technical discussions and coordination to address existing gaps in regional FMD control, as well as to consolidate on the past activities and recommendations from the West Eurasia Roadmap meetings. See component 2.1 report for more information.

Output 4. Support for a global proficiency test scheme, to include 12 laboratories in the global network

WRLFMD activities have continued as planned, under the current LoA describing outputs and activities in the time period October 2015 – October 2017. The 2016 PTS has been finished and results are summarized in the 2016 annual report of the OIE/FAO FMD Laboratory Network. Ten out of 13 FMD laboratories in the global network invited to participate funded by EuFMD actually participated in this PTS (India, Senegal and Argentina did not participate). In the ongoing 2017 PTS only China (has indicated to participate every other year) and India (no response) are not participating.

5-Issues for Executive Committee attention arising during implementation

- In December 2017 an East African Regional Laboratory Meeting was organised in Ethiopia under the umbrella of an OIE twinning project between The Pirbright Institute (TPI) and the National Animal Health Disease Investigation Centre (NAHDIC) in Ethiopia. A representative from EuFMD attended the meeting. Many issues were identified regarding the sustainability of this network and actions were agreed. EuFMD in collaboration with TPI/WRLFMD should follow up on these actions.
- In West Africa (pool 5) only few countries are active with collecting, testing and reporting samples. Since most of these countries are Francophone, a Francophone network has been created. The challenge is now to identify subjects and speakers for webinars and to enhance the uptake of this form of communication. There is also a clear need for more field training and laboratory training in pool 5, related to outbreak investigation, sample collection, sample transport and investigation and international sample shipments. Locally active partners have been identified and a project will be supported under this component to use lateral flow devices for enhancing disease surveillance.
- Webinars and online meetings for East Africa (EARLN, pool 4) continued and for West Africa (RESOLAB, pool 5) planned in conjunction with the Francophone network and for West Eurasia (WELNET and WE epinet, pool 3) planned in conjunction/collaboration with component 2.1.
- Shipments from priority pools (3, 4, 5) realised to fulfil requirements for adequate virological surveillance and disease intelligence (as formulated during 39th General Session). For pool 3 targets are reached, but pool 4 and in particular pool 5 are challenging.
- Organisation of training courses for regional support laboratories in pools 3, 4 and 5. Availability of WRLFMD staff for missions abroad can be challenging considering their other duties and responsibilities.

6-Areas that require more attention in the next 24 month period

- Better virological surveillance in East Africa (pool 4) and West and Central Africa (pool 5) by involving more countries in each pool and focussing on field and laboratory training in passive and active clinical surveillance, early warning, sample collection, use of LFDs or other carriers in the field and funding shipments of specimens and inactivated LFDs;
- Continue virtual networking in pools 3, 4 and 5 and use E-learning and online meetings for Continuous Professional Development.
- Organization of a second Anglophone FLITC course in October/November 2018.
- Organization of several FLITC courses, also in other languages (French, Russian, Arabic should be considered).

7. Budget

Total Budget Workplan activity 24 months	Expenses (actual) Oct. 17 –Dec.17	Expenses (forecast) Jan 18-Mar 18	% project completion	Forecast available
€ 628,772	€ 16,340	€411,558*	65%	€ 200,874

*WRL LoA and contract for West and Central Africa LFD surveillance project

3.3 Lab. support	OUTPUT 3.3 Improved international FMD reference lab services and their contribution to regional epidemio-surveillance networks		YEAR 1												YEAR 2											
	Target	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
3.3.1 Coord. of international harmonization in methods and support activities by the OIE/FAO global FMD lab. network	3.3.1.1 Harmonization of communication and data sharing between network lab. (managed by Pirbright Institute- World Reference Laboratory- WRL)									M																
	3.3.1.2 Org. of the annual OIE/FAO ref lab meeting including support to reg. support labs to attend (managed by WRL)					W S				O M	M		O M	M		O M			O M							
	3.3.1.3 Annual report on global FMD status (managed by WRL)										M												M			
	3.3.1.4 Diagnostic services for samples submitted to WRL (managed by WRL, some tests may be delegated to leading lab. in the global network with WRL support and supervision)																									
3.3.2 Support to intl. surv. perf in 3 priority virus pools including sample shipment, training and supervision of RSL lab to meet or > min.surv. req.	3.3.2.1 Support to sample shipment from labs in pools 4, 5 & 6 and labs from countries/regions with relevant gaps in virological surv. to WRL (managed by WRL)			W S				W S			W S					W S			W S				W S			
	3.3.2.2 Training and supervision to reg. support laboratories in pools 4, 5 and 6 regarding sample collection, lab. analysis, sample archiving and sample selection for shipment (managed by WRL)		W E B			O M	W E B			O M	W E B				O M	W E B			W E B		O M	W E B		W E B		
	3.3.2.3 Support to obtain samples from outbreaks			L S				L S				L S				L S				L S			L S			
	3.3.2.4 Procurement of reagents and kits					V	O M				V	O M				V	O M					V	O M		V	O M
3.3.3 Dev. & implementation of training materials and courses for epidemio-surveillance networks in 3 priority pools	3.3.3.1 Current status of laboratory and epidemiology networks in pools 4 , 5 and 6 analyzed and needs assessed							M							W S						W S					
	3.3.3.2 Development of training material for all relevant FMD laboratory tests including pitfalls and trouble-shooting, biosafety, sample archiving, laboratory management, quality systems etc. (contracted to WRLFMD in Pirbright)					W S																				
	3.3.3.3 FLITC courses delivered, discussion forums created and moderated, online meetings and webinars org. for all endemic regions/pools in close collaboration with comp 2.1, 2,4 & 3.4																									
	3.3.3.4 Online meetings concerning network mgt, issues, priorities, topics of interest, organized twice a year																									
3.3.4 Support for a global PTS, to include 19 lab in the global network	3.3.4.1 global PTS for 12 network labs including 4 RSLs located in pools 4 & 5																									

EuFMD Phase IV

Report to the EuFMD Executive

Period September 2017-March 2018

Component 3.4 –

Global access to PCP-FMD training resources

Pillar Manager: N. Lyons
Component Manager: J. Maud
Reporting: J. Maud
Focal point Executive Ctte: M. Blake

3.4 Global access to PCP-FMD training resources

1. Objective(s) of component

The overall objective of this component is:

Improved national and regional capacity for the roll-out of the Global Strategy and the management of FMD: Pillar III Training Component.

Outputs (expected results):

3.4.1 PCP and associated training resources tested, evaluated and available for use (in more than one official language) in African and Asian FMD endemic regions in line with the intentions of the GF-TADS FMD WG.

3.4.2 System established to safeguard the sustainable use of PCP training resources in at least two regions outside the European neighborhood, and supportive to the establishment of regional and global PCP-FMD networks of trainers and users.

Resource base:

Total component budget (EC funded): 221,748 EUR

2. Project team

<i>Role</i>	<i>Name</i>	<i>Status</i>
Pillar Manager	Nick Lyons	Animal Health Officer
Component Manager	Jenny Maud	Training Programmes Manager
Knowledge Leader PCP and Practitioners' Network	Chris Bartels	
Partner Organizations	Training activities carried out in collaboration with regional partners and organizations in support of the GF-TADs Global Strategy for FMD control.	n/a
ExCom oversight	Martin Blake	Executive Committee

3. Countries or partner organizations involved

For the roll-out of PCP-FMD training and resources in Asian and African regions, a close collaboration is foreseen with regional FAO or OIE offices. Additionally roll-out may make use of non-governmental organizations (NGOs), bi-lateral or multilateral organizations, especially where such partnerships might bring sources of additional funding or resources. Activities in this component are in support of the roll-out of the Global Strategy for FMD Control.

To date activities under this component have been carried out in close collaboration with the FAO Sub-Regional Office for Southern Africa and the FAO Regional Support Unit for South Asia.

New partnerships are foreseen in South Asia, with Indian academic and governmental institutions, and additionally with NGO's and academic institutions based in, or working in West and Central Africa.

E-learning courses are delivered through a letter of agreement with the Royal Veterinary College, UK.

4. Progress against indicators

Activities	Indicators	Baseline Sept 2015	Target 2 years	Achieved Sept 2017	Explanation of indicator
3.4.1	e-learning courses delivered	0	12	4 Southern Africa: FMD Investigation Training Course FMD Post Vaccination Monitoring (joint South Asia) FMD Laboratory Investigation (global) South Asia: FMD Investigation Training Course FMD Post Vaccination Monitoring (joint Southern Africa) FMD Laboratory Investigation (global)	Number of e-learning courses delivered to South Asia or African regions.
3.4.2:	Nb of participants from region taking part in online training course or webinars.	0	200	92	Participants engaging in single e-learning event annually (eg joining online course or webinar).

5. Progress report

Target 3.4.1: PCP and associated training resources tested, evaluated and available for use (in more than one official language) in African and Asian FMD endemic regions in line with the intentions of the GF-TADS FMD Working Group.

Activities:

3.4.1.1 Plan for modification and delivery of training courses and resources for Asia region

A detailed plan for the activities to be carried out in support of South Asia across the Pillar III programme has been developed and is being used for ongoing consultation with regional partners.

The e-learning planned in South Asia under this plan for the next biennium is detailed below:

Course	2017	2018				2019		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Open Access: Introduction to the Progressive Control Pathway								
Open Access: Risk Based Strategic Plan								
Progressive Control Practitioners' Network								
In-depth Post vaccination monitoring								
FMD Laboratory Investigation Training Course								
In-depth Risk Analysis Along the Value Chain								
FMD Investigation Training Course Regional								
National Level Course								
In depth FMD Socio-Economic Impact Assessment								

3.4.1.2 System for M&E established

The system for monitoring and evaluation of training is now well established. All training courses are evaluated by an online feedback survey immediately after the workshop, with summative assessments to verify participant's knowledge used at the end of online training courses. A protocol for evaluation of each training course, based on the evidence provided by the survey and assessments has been developed. All results of

surveys and evaluation documents are stored on a dedicated “trainers” section of the EuFMD e-Learning platform, and are shared with relevant nominating organizations.

A more detailed consultation on the monitoring and evaluation of the training programme, including external evaluation, is planned for the first half of 2018 (see components 1.1 and 2.4)

3.4.1.3 Courses delivered and evaluated Asia region

Two e-learning courses have been conducted for South Asia (alongside other regions) in the period September 2017-March 2018.

FMD Post Vaccination Monitoring

(funded additionally under component 3.2)

This course was an in-depth online course requiring six weeks of study, with four hours study per week. Each week participants were asked to read background materials, answer questions in an online interactive quiz and complete an assignment. Tutorial support was provided by Giancarlo Ferrari, David Paton and Nick Lyons. Each week a webinar was held and individual feedback on each participant’s assignment was provided by the tutors.

The course was based around the OIE/FAO Guidelines on Vaccination and Post Vaccination Monitoring.

The learning objectives were that after studying the course participants would be able to:

- *make rational decisions on vaccine selection and purchase; perform and use serological studies to assess vaccine quality and population immunity; describe different vaccination strategies and how these integrate into the broader FMD control strategies; explain the importance of monitoring vaccination coverage and perform appropriate quantitative studies; conduct investigation into reported vaccination failures; explain the difference between efficacy and effectiveness and have the ability to perform vaccine effectiveness studies when outbreaks occur in vaccinated populations; formulate a broader evaluation of a vaccination programme and use this information to make adjustments to improve the efficiency of control measures relevant to the programme objectives.*

Countries in Southern Africa (support with e-learning for the 2015-17 programme) and South Asia were each asked to nominate four participants for this course. In addition, FAO officers working closely with government veterinary services in the target regions were invited to join the course. The breakdown of nominations received and those completing the course is shown below:

Country	Nominated	Completed
Afghanistan	1	
Bangladesh	3	
Bhutan	4	
India	7	4
Mongolia	4	
Nepal	4	1
Pakistan	3	2
Sri Lanka	3	3
Botswana	3	
DRC	5	
Lesotho	3	
Malawi	3	1
Mauritius	3	3
Mozambique	1	
Namibia	3	2
South Africa	2	1
Swaziland	2	1
Tanzania	4	1
Zambia	3	2
Zimbabwe	5	1

23 participants completed the full course; a further 10 participants took part in significant areas of the course but did not complete all the elements needed to achieve their certificate.

In the post-course feedback survey, 86% of respondents rated the course as very good with 91% stating that the courses was very relevant to their specific needs.

Many commented positively on the relevance and importance of the course topics to FMD control in their country, and additional requests for participation in future courses from institutions in India were received. All those who did not complete the course were contacted by e-mail and asked for feedback on what they had found difficult. Those responding recognized that the course content was important, but had either had difficulty with internet connectivity in remote locations or with finding the time to complete the course alongside other work commitments.

FMD Laboratory Investigation Training Course

(funded and additionally reported under component 3.3)

This course was organized in partnership with the Pirbright Institute under the Letter of Agreement (see component 3.3).

The learning objectives of this course were that after studying the course participants would be able to:

- *Interact with field staff and guide them in collection and submission of quality diagnostic samples; Submit appropriate samples to reference laboratories; Select appropriate diagnostic tests to detect FMD virus and FMD virus-specific antibodies, and interpret the results of these tests; Understand the principles of accurate virus detection test methods (virus isolation, ELISA and RT-PCR) and assays used for serology (VNT and ELISA); Outline techniques for further characterization of FMD virus including genomic sequencing and vaccine matching tests; Understand the importance and basic principles of laboratory Quality Assurance; Explain the key principles of biosecurity and biosafety measures to be carried out in an FMD laboratory.*

The course involved approximately 12 hours of study, with two webinars, and fourteen short online modules. The course modules were authored by the Pirbright Institute, and hosted on the EuFMD e-learning platform. EuFMD was responsible for seeking nominations to the course, managing all course logistical and technical hosting, organizing the webinars and co-ordinating the discussion forum.

Countries and participants: Albania: 1; Algeria: 2; Armenia: 2; Azerbaijan: 1 ; Bangladesh: 2 ; Belarus: 2 ; Belgium: 2 ; Bhutan: 2 ; Bosnia and Herzegovina: 1 ; Botswana: 2 ; DRC: 2; Egypt: 2 ; Eritrea: 2 ; Ethiopia: 4 ; France: 2 ; FYRoM: 2 ; Georgia: 1 ; Greece: 2 ; India: 2 ; Iran: 2 ; Iraq: 2 ; Italy: 2 ; Jordan: 2 ; Kenya: 2 ; South Korea: 2 ; Lebanon: 2 ; Libya: 2 ; Malta: 2 ; Mauritania: 2 ; Mauritius: 2 ; Moldova: 1 ; Morocco: 2 ; Mozambique: 2 ; Nepal: 2 ; Norway: 2 ; Pakistan: 2 ; Palestine: 2 ; Serbia: 2 ; South Sudan: 2 ; Spain: 2 ; Sri Lanka: 2 ; Syria: 2 ; Tajikistan: 2 ; Tanzania: 2 ; Thailand: 2 ; Tunisia: 2 ; Turkey: 2 ; Turkmenistan: 2 ; Zimbabwe: 2 ; OIE: 3; PANAFTOSA: 1 ; The Pirbright Institute: 5

59% of those nominated completed the course.

Survey feedback results were positive with 76% of respondents rating the course as “very good”. Before the course respondents felt reasonable confident about the learning objectives with a range of 2.5 – 3.5 on a scale of 1- 5 (total average 3.28). After the course respondents felt confident to very confident about their competencies related to the learning objectives mentioned below with a range of 3.8 – 4.5 on a scale of 1-5 (total average 4.23).

The findings of this initial pilot course will now be used to make improvements, with the intention that the course will be offered again later in 2018.

3.4.1.4 Training needs assessment carried out in West and Central Africa and plan for training to be delivered in the region developed

Initial activities in West and Central Africa have been initiated, with activities initially focused on understanding needs related to field submission of samples and veterinarian/para-veterinarian capacity related to FMD control (see reported elsewhere under Pillar III programme).

The letter of agreement concluded with CIRAD includes a short assessment of training needs in West and Central Africa.

A French language online FMD Investigation Training Course is being organized, to which countries in West and Central Africa are invited to participate. This pilot course will be an important part of the training needs assessment process and identify key capacity building gaps and also the potential for e-learning to be used as a training modality in this region.

3.4.1.5 Training courses and resources are delivered and evaluated in West and Central Africa.

A French language FMD Investigation Training Course is currently being organized for April (see above).

3.4.1.6 Training courses and resources are made available to countries outside the target regions, based on demand from the GF-TADs working group

Places on upcoming English language e-learning courses (notably FMD Risk Analysis Along the Value Chain planned for May/June) will be offered to countries outside West/Central Africa and South Asia, following consultation with the GF-TADs working group.

3.4.2.1 Develop webinar series and network for global PCP practitioners

Progressive Control Practitioners' Network

The latest training "month" of the Progressive Control Practitioners' network was held in November and December. The focus was on Risk Analysis Along the Value Chain and the training content created included:

- Webinar: introduction to risk and value chain analysis
- Webinar: examples from Kazakhstan, Zimbabwe and South East Asia
- Reading and quiz: Reading: Analyses of the Poultry Value Chain and Its Linkages and Interactions with HPAI Risk Factors In Nigeria
- Reading, recording and quiz: Reading and recording: The broiler meat system in Nairobi Kenya using a value chain framework to understand animal and product flows governance and sanitary risks
- Webinar: How to identify risk hotspots

The network now has 120 members and between 20 and 30 participants attended each of this month's webinars.

Five members of the network have been awarded their "Bronze Level" certificate, indicating that they have taken part in at least ten hours to training activities through the network. An online "awards ceremony" was held and each practitioner presented their interests and areas of work:

A new communication strategy has been developed to encourage greater participation in the network, currently the relatively low participation is a concern, and may be due to low awareness amongst target audiences of the availability and benefits of network membership.

The next training topic of the network starts in February and focusses on "vaccine failure or failure to vaccinate?".

Francophone network

(Please also see reported under component 2.3)

The Francophone network has global reach with webinars conducted in French language. A webinar on *“Partenariat Public-Privé : Rôle des détenteurs d’animaux dans la détection précoce, la surveillance passive et la préparation à la gestion du risque de la fièvre aphteuse”* was conducted on 21st December with 23 participants and lively subsequent discussion in the online forum. A series of webinars for this network are planned for 2018 and the Francophone network will form an important part of activities in West and Central Africa.

3.4.2.2 Support regional networks in target regions identified under 3.4.1, and provide assistance to networking activities in other regions if appropriate

A proposal to support laboratory and epidemiology networking in South Asia with a series of webinars and online meetings has been developed and communicated to the co-ordinators of the networks.

3.4.2.3 Assist collaborating organizations to develop a sustainable system for training

Contact has been made with several Indian institutions (National Dairy Development Board, ICAR National Institute of Veterinary Epidemiology and Disease Informatics, Punjab Agricultural University) to explore potential partnerships for training delivery in India and South Asia.

3.4.2.4 Research additional sources of funding to support training

Following the interest generated by the first Post Vaccination Monitoring Course and the successful partnership with the Pirbright Institute for the delivery of the FMD Laboratory Investigation Training Course, EuFMD assisted colleagues at the Pirbright Institute to compile a proposal for funding under the UK Government Global Challenges Research Fund. This proposal was successfully funded and will see the Pirbright Institute develop additional e-learning modules on vaccination and post vaccination monitoring, with technical advisory input from EuFMD, and with EuFMD hosting and organizing taught e-learning courses using the modules.

6. Issues for Executive Committee attention arising during implementation

In order to achieve its stated aims, and to offer the required impact in return for investment, the Progressive Control Practitioners’ network requires higher numbers of participants. A communication strategy has been developed to improve awareness of the resource, and ongoing consultation should occur to ensure that the training resources produced are appropriate, interesting and useful for the target audiences.

7. Priorities for the next six months

Priorities for the next six months include:

South Asia:

- Exploration of partnerships with regional institutions
- Virtual support to laboratory and epidemiology networking
- Next regional e-learning courses: FMD Risk Analysis Along the Value Chain
- National level e-learning course in India, through newly developed partnerships.

West and Central Africa:

- Training needs assessment through delivery of French language FMD Investigation Training Course and partnership with CIRAD.

Progressive Control Practitioners’ Network:

- At least two new month’s training activities
- Enhanced communication strategy to significantly widen participation in the network activities.

8. Success stories and emphasis

Both the Post Vaccination Monitoring e-learning course and the FMD Laboratory Investigation Training courses are particular successes, due to the interest generated and the transformative potential of these courses if they achieve wider global uptake. The successful application for additional funding to further develop the post vaccination monitoring e-learning with the Pirbright Institute is a promising next step in this regard.

The roll-out of national level e-learning courses in South Asia, particularly in India, have the potential to reach wide audiences with new ideas on FMD control, to build new partnerships and to enhance our understanding of the risks in this strategically important region.

9 .Budget €

Total Budget Workplan activity 24 months	Expenses Oct 17 – Dec. 17	Expenses Jan 18 - Mar 18 (forecast)	% project completion (forecast)	Actual available (forecast)
195,532	30,026	20,000	12%	172,506

10.GANTT chart //indicate change

3.4 Global access to PCP-FMD training resources	OUTPUT 3.4 Improved National and Regional Capacity for the Roll-Out of the Global Strategy and the Management of FMD: Pillar III Training Component		YEAR 1												YEAR 2											
	Target	Activities	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
3.4.1 Development and evaluation of PCP and associated training resources, including pilot training in several regions	3.4.1.1 Plan for modification and delivery of training courses and resources in Asia region	3.4.1.1.1 Plan for modification and delivery of training courses and resources in Asia region																								
		3.4.1.1.2 System for M&E established																								
		3.4.1.1.3 Courses delivered and evaluated Asia region				/	/																			
		3.4.1.1.4 Training needs assessment carried out in West and Central Africa and plan for training to be provided in the region developed																								
		3.4.1.1.5 Training courses and resources are delivered and evaluated in West and Central Africa																								
		3.4.1.1.6 Training courses and resources are made available to countries outside the target regions, based on demand from GF-TADs FMD working group																								
	3.4.2 Develop and implement a support network including training programmes for the practitioners of the PCP in at least two regions outside the European neighbourhood	3.4.2.1 Develop webinar series and network for global PCP practitioners				/	/		/	/																
		3.4.2.2 Support regional networks in target regions identified under 3.4.1, and provide assistance to networking activities in other regions if appropriate.																								
		3.4.2.3 Assist collaborating organizations to develop a sustainable system for training																								
		3.4.3.4 Research additional sources of funding to support training																								