



# Executive Committee 95

## Meeting documentation

6-7 March 2018  
Budapest -Hungary





## 95<sup>th</sup> Executive Committee EuFMD

6-7 March– Budapest, Hungary

### Draft Agenda

Tuesday 6 <sup>th</sup> March 2018			
13.00	1	Welcome & Adoption of the Agenda	L. Bognar, J-L Angot
	2	<b>Follow-up to the 94<sup>th</sup> Session</b> i. Summary of actions since October 2017	K.Sumption, EuFMD
	3	<b>FMD situation and progress of FMD laboratory surveillance contracts</b> a) Report of the WRL [Report required under Contract-LOA] b) Report of ANSES/EU-RL	D. King, WRL  L. Bakkali
	4	<b>Evaluation of the progress of the Phase IV Contract , EC support to EuFMD Activities [for decision]</b>	K.Sumption,
	5	<b>Training Programme - Progress Updates and Plans</b> a. <b>Training Program for Member States</b> b. <b>Training in support of neighbourhood and global strategy (Pillars II and III)</b> c. Joint OIE/EuFMD training initiative on better application of the TAHC (FMD chapter)	M.Hovari J.Maud <i>adobe</i>
	6	<b>Progress on tools for emergency preparedness</b> a. European multi-country FMD Spread model (EuFMDiS) b. EuFMD emergency vaccine reserve – interest of producers to participate in a new modality for vaccine banks	G.Garner <i>adobe</i> K.Sumption
<b>Break</b>			
Wednesday 7 <sup>th</sup> March 2018			
8.30	7	<b>Regional FMD programmes –progress</b> a. REMESA: Report on recent meetings and progress in N Africa and Mid-East b. Turkey, Georgia and Transcaucasus a. Report of the meeting in Georgia on progressive control programmes in TransCaucasus b. Report of Turkey on FMD control progress c. Update on the pipeline FAO/Russian Federation project for FMD control in Transcaucasia and Central Asia	F. Rosso  L. Avaliani  GDFC FAO
	8	<b>Support to the Global Programme (Pillar III)</b>	N. Lyons/K Sumption
	9	<b>Standing Technical Committee (STC) Report</b> 1. Progress of FAR Fund projects 2. Open Session 2018 3. Biorisk Management Committee – upcoming Meeting (Palermo, March	E. Ryan K.Sumption
	10	<b>Financial and Administrative Reports</b> Administrative Fund, and future budget/Emergency and Training Fund/EC Fund	K.Sumption
<b>Finish / Lunch</b>			

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## Item 2

## Report on Activities of the Secretariat - October 2017 – March 2018

## 1. SUMMARY

It has been an intense and productive five months since the Dublin (94<sup>th</sup>) Session of the Executive Committee, held in October 2017. At that Session, the set of sixteen, 24 month workplans were agreed, and with immediate effect for implementation. As the budget proposal for the overall four-year plan remained within the terms of the agreement for extent of variation of budget elements, the changes were accepted by the Financial Unit of DG-SANTE. The rapid implementation of the plans were enabled by having a full team in place, with exception of the expertise for the Balkans Component. The additional heavy workload imposed by FAO administrative procedures has been managed, but it has been a stressful period for many. The budget position has been very well managed by Cecile Carraz and team and the expansion in the current biennium of the communications and training programme has been assisted by establishing a funding base for **internships**, with these working alongside experienced EuFMD team members. The Pillar III work has been assisted by having Nick Lyons (UK) join the Rome-HQ team on full time basis in January. This has enabled a focus on the initiatives in support of GF-TADS WG, particularly Progressive Control Pathway (PCP) support to countries, and working with international partners for an integrated approach to West Africa and South Asia.

On the **partnership** side, agreements have been reached with IZSLT (Italy) and CIRAD (Montpellier) which will greatly help the Pillar II and III work in the Mediterranean and West and North Africa in 2018. The working agreement with OIE, on joint training courses, has proceeded well, with Turkey offering to host the first course in April.

- Relating to **Member States**, the development of a **multi-country disease spread** model has gone really well, and is now ahead of schedule, and the Committee needs to consider if a wider conference/workshop (“Europe wide” scenario modelling) could be a good target for achievement in 2019. The **training programme** for MS is now in full swing with most training for the biennium planned for delivery by mid-2018. New courses have also been launched, one being for the CaribVet network which includes British, French and Netherlands overseas dependences in the Caribbean region, which are under risk from the situation in Venezuela.

The other major news is that **Montenegro** has submitted its Instrument of Acceptance of the EuFMD Constitution. We still await legal office clearance, for our “39<sup>th</sup>” member state.

**2. Actions taken in follow-up to the Recommendations of the 94<sup>th</sup> Session**

<b>Recommendation (94<sup>th</sup> Session, Dublin)</b>	<b>Follow-up</b>
1. Relating to the financial closure of Phase III, a meeting is recommended to take place between EuFMD, FAO and DG-SANTE to resolve issues associated with the verification process and reach agreement over eligibility of certain expenditures.	<b>See point #25</b>
2. Relating to recruitment processes for consultants, the President and Officers undertook to identify if messages of concern might be sent by the Member States or through the EU Presidency.	Interventions of Irish Representation (on consultants) and French Representations (relating to contract extension delays of the P1 officer). Both had some immediate impact, the latter on the single case.
3. The Committee noted with concern the continuing volatile and rapidly changing pattern of risk for the member states in South and East Europe, and to all member states from the situation of continued spread in the Far –East (Pool 1).	Higher attention to risk in THRACE/ South and East Europe activities. The Bulgaria Presidency is well aware of the risk situation.
4. The Secretariat should arrange a meeting to discuss the future arrangements for the EuFMD support to the Proficiency Test System (PTS) with the new EU-RL and with The Pirbright Laboratory, when the new EU-RL nomination has been finalized.	Not yet held. Will occur on margins of the 95 <sup>th</sup> ExCom. The new EU-RL is ANSES/CODA-CERVA.
5. The Secretariat should ensure the new EU-RL is informed about future Sessions of the Executive Committee since their participation in such Sessions could be a benefit for co-ordination.	Informed, invited and in attendance 95 <sup>th</sup> ExCom.
6. The risk monitoring activities in Pillar II were supported, including the proposal to encourage, under the Fund for Applied Research, the development of a working system for integrating livestock price monitoring data with regional movement data in North Africa.	Contracting with CIRAD has proceeded and work programme initiated.
7. Endorsed the proposal to undertake a feasibility study on assurance options to enable access to emergency reserves of FMD antigens and vaccines, and re-confirmed the importance to be placed on achieving progress in this domain over the next year.	Call for expressions of interest launched by FAO. Six vaccine producers responded, and consultations were held with them in January 2018. High interest to participate. Next stage is tenders to identify costs of the storage options.
8. Endorsed the workplan for the animal disease spread model and recommended an update on progress should be an item on each upcoming Session of the Executive Committee.	Good progress being made and will be reported.
9. Endorsed the workplan for the Balkan countries and the further development of the “GET Prepared Pathway” as a tool for development of exercises to evaluate national FMD preparedness plans	In pipeline to apply in Balkan countries.
10. Agreed upon the necessity of forming a working group on how public sector may better achieve engagement with private stakeholders in preparedness and response planning, under the leadership of Vice-President (C. Bruschke).	To be followed up.
11. Recommended that a Tripartite Meeting be held in June 2018 (in Istanbul, Turkey) to decide on the focus of future surveillance activities for Component 1.3 THRACE after September 2018, and that a further post vaccination serology study conducted in Turkish Thrace be repeated, in first half of 2018.	To be discussed at Excom
12. Took note of the reports of the recent Epidemiology and Laboratory network meetings held as part of the GF-TADS West Eurasia Roadmap, and requested the Secretariat to prepare the	Follow-up workshop (Georgia) held week of 12 <sup>th</sup> February 2018, organized by EuFMD with OIE presence.

response in line with the target and funds available within the Component 2.1 of Phase IV work programme.	Follow-up actions under the Epi and Lab networks undertaken.
13. Endorsed the proposal for the new joint training initiative with the OIE within the Pillar II workplan, and instructed the Secretariat to proceed with the development on a bilateral basis with the OIE and to report on progress at the next Executive	Good progress being made. Initial course (Safe Trade) planned for April 2018, in Istanbul), and training in Containment Zones planned to follow (prepared after May 2018).
14. The Session endorsed the set of sixteen workplans contained in the Phase IV workplan, second biennium, for the period October 2017-September 2019, and the proposed budget, subject to the clarifications provided in the report on this item.	Implemented immediately after 94 <sup>th</sup> Session.
15. The Chair asked if the Session endorsed the programme or work and budget for the biennium, and received unanimous support.	Budget submitted to EC (DG-SANTE) with indications received back of acceptance.
16. Recommended an in-depth review to identify priorities for technical studies and for applied research be undertaken and report to the Open Session in October 2018. In so doing, the EuFMD should encourage and if needed, assist the gap analysis to be conducted by GFRA in early 2018.	The GFRA review of research is ongoing.
17. Endorsed the proposals for the 6 <sup>th</sup> call for research proposals under the FAR Fund, and that more details be provided to the next Session for the decision on the priorities for the 7 <sup>th</sup> call	Ongoing.

### 3. Global Surveillance Reports

The EuFMD – with support of the WRL (Pirbright) has produced Monthly Reports which are sent every month to the global community, summarizing information received from the monthly push-pull process of contacting informants in six of the seven viral epizones (Virus Pools).

The major FMD risk events of the note in the period, of most concern to Europe have been:

- Evidence of FMD viruses of African origin (O/EA-3), and SAT 2 moving into the near East (in Israel and Palestinian AT), with outbreaks in Palestine in November 2017;
- The continued presence of A/ASIA/G-VII lineage in Turkey and mid-East, as seen from outbreaks in northern Israel;
- Unexplained movement of infection into Russian Federation, with emergence of a new genetic lineage of serotype O/ME-SA in Russia (Bashkortostan), probably from Central Asia;
- New FMD cases due to serotype Asia 1 in West Eurasia (such as in Pakistan) that may be early predictors of a fresh wave of cases due to this serotype that may occur, via Iran into Turkey;
- The threats of infection from Pool 1, where spread of O/ME-SA/Ind-2001 – particularly in China, Mongolia, South Korea and Russia), and the recognition that there are at least two genetic clades of this FMDV lineage circulating within the Indian sub-continent that have caused exotic outbreaks (named O/ME-SA/Ind-2001d and O/ME-SA/Ind-2001e).

On a more positive note, there have been no further reported outbreaks in North Africa (Algeria and Tunisia) since April 2017, after the incursions from West Africa of viruses within the A/AFRICA/G-IV clade.

### 4. The major achievements in the six months

#### Pillar I:

Progress with development of the **EuFMD-iS** (European FMDisease Spread model), with good progress made to establish country levels datasets to establish the model with seven European countries, and the agreement with MS on the training credits /course to be run in 2017-19.

**Pillar II:**

- Significant progress in Georgia, Jordan on their Risk Based Strategic Plans;
- with Morocco/Algeria/Tunisia towards agreement in the surveillance for early detection of FMD infection;
- Online, multi-country FMD investigation course run with Russian speaking countries.

**Pillar III:**

Establishment of a system to support the FMD-WG of OIE and FAO, with "**PCP Support Officers**", to ensure countries have access to guidance after Roadmap meetings;

- Successful pilot courses "post-vaccination monitoring" and FMD Laboratory Investigation course (**FLITc**), for multiple regions, with very good take up from South Asia (vaccination monitoring).

**5. The most significant delivery problems have been**

- a. Lack of agreement with the Veterinary Services, **Kenya**, to host further Real-time Training Courses (RTT), which led to shifting the February 2018 course from Kenya to Nepal;
- b. Delivery issues relating to the **Balkan** region component (1.4), where delays in recruitment of a Short Term Placement (STP) were faced, with consequent delays in the work on laboratory emergency co-ordination in the region.

**6. Operational and administrative issues**

The severe problems associated with Consultant re-hire (reported October 2017) have not yet been resolved, since the imposition of the new FAO procedures. EuFMD has managed to re-hire (on "One Shot" basis) the essential consultants to the team, but on the agreement that the competitive processes will be followed for rehires in 2018. The announcement of vacancies has been made on the FAO site, and a series of interviews will be held in March-April 2018.

The other major problem has been the extension of the P1 Officer (Cecile Carraz), which was not resolved until after intervention of the Ambassador of France to the FAO. The problem here relates to the need for high level clearance on almost every professional position, whether project, Commission or regular programme. In the case of Ms Carraz, the need for such a position and such a qualified person has been agreed at previous Executive Committees to ensure the EuFMD programme is managed professionally, with less reliance on consultants (who would themselves be supervising other consultants).

**7. New developments of note**

- a. Special Committee for Biorisk Management – first session planned in Palermo (Italy), March 15-16 2018;
- b. Open Session 29-31 October: agreed location is Puglia, Italy, hosted by *Ministero della Salute*, Italy, with assistance of the regional *Istituto Zooprofilattico*;
- c. Funding obtained by TPI, Pirbright, to develop improved e-learning content of the online course "post vaccination monitoring" (100,000 STG).
- d. USA (APHIS) and Canada have both indicated high interest in funding national application of the online training course (FITc) and to contract EuFMD to provide these.
- e. Scientific progress:
  - i. expert meeting on replacing the "r-value" made good progress; a workplan and budget to identify new predictors for protection were drawn up;
  - ii. breakthrough progress in the milk surveillance project (Kenya/Iran);
  - iii. breakthrough also in environmental sampling: FMD detected on farms and at markets in Nepal at the time of real-time courses.

**8. Secretariat**

The composition of the Secretariat is indicated in **point 17**, and Phase IV team for implementing the EC project activities is given in **Table 1**.

## EuFMD Program Report

### A. EC program implementation, Phase IV, since 1<sup>st</sup> October 2017

Following the 94<sup>th</sup> ExCom comments and conclusions, the final 24-months budget for workplan (October 2017-September 2019) 2<sup>nd</sup> Biennium for the Phase IV programme and the four-year Budget as in GAF have been amended, shared with DG –Sante. The reply was received there were no comments; BR to proceed. (**Table 10.**)

#### 9. In support of Pillar I, since the last Executive Committee (October 2017)

- a. **Component 1.1.** Training for Member States:  
Three real-time training courses were held, in Kenya in November/December 2017, and Nepal in Feb 2018;  
 On line resources: accessed over 10,000 times, in the past six months;  
 On-line FMD Investigation Course (FITc) delivered in Spanish and English, for UK, FR and NL territories in the Caribbean epidemiology network (CaribVet), circa 150 participants;  
 FITc on line course for the UK: initiated Feb 2018, timed to prepare for a UK simulation exercise.
- b. **Component 1.2.**Contingency Planning: the **CRoBoDiMo** initiative and the adaptation of the AADIS model for Europe has been combined, the pilot study has got off to a good start, with Graeme Garner leading the work with Italy and several Central - Eastern European countries. The feasibility study on **Options for Emergency Access to Vaccines** has begun.
- c. **Component 1.3.** THRACE: activities continued across three countries, with the Tripartite (October 2017) reported and decisions follow-up. No cases of FMD, or sero-conversions detected.
- d. **Component 1.4.** The Balkans Consultant hired and undertook field missions, but parts of the delivery delayed by the process of recruiting an STP from the region.
- e. **Component 1.5** Activities of the **FAR** Research Fund: calls 5 and 6 were completed, and contracts with CIRAD and VSF-Suisse developed. Funded projects reporting good progress.

#### 10. In support of Pillar II, of most significance has been

- a. Operational delivery/progress indicators are **on track** or exceeded target for the period.
- b. **Component 2.1.** TransCaucasus Workshop in Georgia held (Feb 2018), for the review of the risk based plans (RBSP), surveillance and control plans for the potential establishment of zones with PCP Stage 3;
- c. **Component 2.2.** Workshop in Jordan to finalize the revision of the RBSP, and identify modalities for establishing post-vaccination monitoring and small scale immunogenicity trials for vaccines to be used in the Mid-East (Feb 2018);
- d. Workshop held for the Maghreb countries on development of the surveillance action plan for the three countries to achieve early detection of FMD (Feb/march 2018);
- e. Launch of the post-vaccination monitoring (PVM) course for Pillar II countries, Feb 2018;
- f. Completion of two online courses: Russian speaking countries (FITc course), and Risk Analysis in the Value Chain (Pillar II, English).

#### 11. In support of Pillar III, of most significance has been

- a. Highly successful completion of **new online courses**:
  - i. First online South-Asia (**SAARC**) FMD investigation course for ten countries very well received;
  - ii. First Post-vaccination monitoring (**PVM**), six-week course for South Asia and Southern Africa;
  - iii. First FMD Laboratory Investigation Training Course (**FLITc**) – co-organized with The Pirbright Institute;

- b. Establishment of a PCP Support Officers scheme, to support the OIE/FAO working group by providing guidance to countries; agreed with FMD-WG, and populated by EuFMD trained experts.
- c. Development of a pilot study on the role of para-vets to collect FMD samples in West Africa (implemented by VSF-Suisse, with training from ANSES/EuFMD).
- d. Progress to sign the letter of agreement (contract) with Pirbright (TPI) on the Pillar III (Global Surveillance).

Strong interest from India to cascade the EuFMD training to >1000 staff in state field labs and field offices.

## B. Additional developments (including Non-EC funded pipeline)

- 12. The EuFMD operates an Emergencies and Training Fund (MTF/INT/004/MUL), as agreed with the MS in April, the Fund will be continued until December 2019, and extended thereafter if subsequent Sessions are in agreement.
- 13. Under the Australian/New Zealand funding, **two** Real-Time Training (RTT) Courses were successfully conducted in Nepal in November 2017. The difficulty faced was of a lack of reported cases, although both RTT courses saw FMD lesions, the scouting for fresh cases was hard and long and an agreed change to the case-finding and surveillance between courses was agreed with Nepal and Australia. Subsequently, more cases have been detected under the new system, even including Asia-1, for the first time in years. The isolates have been sequenced at WRL, providing vital information on Pool 2 virus circulation (since India has not been reporting Asia-1). The online FEPC courses for Australia are planned to be held in October each year. For year 2018, four real time training courses in Nepal are planned, with the first batch of two taking place from 12 to 23 March 2018. To be noted: two persons from OIE will take part in the courses (March/November).
- 14. An agreement with the Department of Agriculture, Food and the Marine (Ireland) to fund studies on the use of mobile phones to improve surveillance has been agreed as a joint signature, with implementation to be completed within 18 months (i.e. by end of 2019).
- 15. Request /interest from USA and Canada has been received to run National Level FITC courses, for both countries. For Canada, the model used with CaribVet (bilingual courses) would be followed. The cost of each is circa 15,000€ and costs would be fully covered by the requesting countries.
- 16. The IIAD/USA project 2017 for Foot and Mouth Disease Virus (FMDV) Field Trials in an International Setting, Comparison of Conventional and Novel Vaccines and Diagnostics, has been completed with final payment received from IIAD in January 2018. Total Funds 74'000\$.

## C. Administrative Report

- 17. The **Secretariat staff** are listed below (as of February 2018)

### Technical team:

Executive Secretary	(P5)	Keith Sumption
Communications and Networks Officer	(P2)	Nadia Rumich
Chief Operations Officer	(P1)	Cecile Carraz
Pillar I Supervisor/ Contingency Planning Officer:		Mark Hovari
Pillar II Supervisor/Deputy Executive secretary		Fabrizio Rosso
Pillar III Supervisor		Nicholas Lyons
Risk Management Support Officer		Graeme Garner
Training Programmes Manager		Jenny Maud

## Short Term Placements

Ruth Oliva Abascal (Spain)  
Ipek Keskin (Turkey)  
Abdenacer Bakkouri (Morocco)

Consultants (Component Managers)  
Knowledge Leaders:

Carsten Potzsch, Chris Bartels  
Kees van Maanen (Vaccination)  
Dinara Imanbayeva (Safer Trade Training)  
Paolo Motta (Livestock movement risk)  
Melissa Mc Laws (Risk Analysis/Pragmatist tool)

**Administrative team:**

## Operational support team

Erica Tomat, Francesca Renzetti, Silvia Epps,  
Maurizio Licastro

## E-learning Support Assistant

Chiara Addari

## Finance assistant

Filippo Pedullà

**Interns: Spring 2018 intake**

- Angela Fanelli Pillar I &II (from 01-03-2018)
- Co shared Cirad Pillar II
- Juan Manuel Ayerbe Posada (R value + comp. 3.3 + Operational support) (12-02)
- Alessandra Alviti (E-Learning Support Comp. 3.3 communication + Operational support) (12-02)
- Bryan Ross (E-Learning Support Comp. 3.3 communication + Operational support) (26-02)
- Tiziano Federici (E-Learning Support Comp. 3.3 communication + Operational support) (05-03).

**18. Linkage of staff positions to budget, under Phase IV**

**BOLD** script indicates positions funded under the EC programme, and *italics* those funded by EuFMD under MTF/INT/011/MUL. (September 2017).

**Table 1. Staff in Phase IV**

Component (Output) Number	Pillar Supervisor	Output Manager	Lead - Network and training support
1.1	M. Hovari (PI)	<b>STP 1</b>	P2 (80:20 EC AND MUL/11)
1.2		RMSO	P2 (80:20 EC AND MUL/11)
1.3		STP 2	
1.4		STP 2	
1.5		RMSO	P2 (80:20 EC AND MUL/11)
1.7		Consultant2	
1.8		RMSO	
2.1		F.Rosso (PII)	<b>Consultant-3</b>
2.2	<b>Consultant-2/STP</b>		
2.3	<b>STP</b>		
2.4	TPM		P2 (80:20 EC AND MUL/11)
3.1	N.Lyons (PIII)	<b>Consultant</b>	
3.2		<b>Consultant-4</b>	
3.3		<b>Consultant-2</b>	
3.4		TPM (P2 EQUIV)	P2 (80:20 EC AND MUL/11)
<b>Key:</b> EXSEC P5 Animal Health Office, Executive Secretary; NTSO Network and Training Support Officer P2; CPO Contingency Planning Officer, consultant with experience/terms equivalent to P2; RMSO Risk Management Support Officer; TPM Training Programmes Manager, consultant with experience/terms equivalent to P2.			

## D. Financial Report

### 19. Financial position

The Secretariat manages three Trust Funds, for the Administration of the Secretariat (MTF/INT/011/MUL, contributions from the Member States), EC Program (MTF/INT/003/EEC) and an Emergencies and Training Fund into which additional contributions have been received for provision of training (MTF/INT/004/MUL).

### 20. Position of the Administrative Fund (MTF/INT/011/MUL)

Balance	01-01-2017	<b>USD 470,146</b>
Total MS contributions received	31-12-2017	<b>USD 621,860</b>
Total expenditure		<b>USD 602,539</b>
Balance	31-12-2017	<b>USD 489,467</b>

The commitments from the 011 Funds are in line with the budget allocated. The closure of the financial year 2017 was on the 19 February 2018, with the automatic re-allocation of unspent funds from 2017 to year 2018.

**(See Financial Report Table 3)**

### 21. Position of the Administrative Fund (MTF/INT/011/MUL) – MS Contributions Year 2017/2018

*(See Member State Contributions report Table 4)*

Total contributions expected	2017	<b>USD 606,997</b>
Contributions received	31-12-2017	<b>USD 489,467</b>
Outstanding	31-12-2017 (Albania- Croatia- Italy - Luxembourg (2016/2017)- Portugal – Romania - Turkey)	<b>USD 117,442</b> <i>(includes 4.504 outstanding 2016)</i>
Total contributions expected	2018	<b>USD 611,501</b>
Contributions received	15-02-2018	<b>USD 41,397</b>
Contributions expected	2017/18	<b>USD 687,546</b>

In 2018, Contributions will also be requested from Iceland after the decisions taken at the GS42 on their status.

For information, the Republic of Montenegro deposited their instrument of acceptance of the constitution with FAO DG (18 December 2017). It has been the practice to not request contributions until the next full calendar year after acceptance, therefore in 2019.

### 22. Position of the Emergencies and Training Fund ((MTF/INT/004/MUL) – Table 5/6)

The position of the Fund and its baby (Australia) account is shown in **Tables 7 and 8.**

Emergency and training	2017	<b>USD 34,000</b> (USA:IIAD (total fund 74,000))
	2018	<b>USD 155,000</b> from Ireland, Canada, USA
Baby	2018	>USD <b>241,000</b> Support the upcoming training courses and activities plan to be conducted in 2018.

Both project balance at year end 2017 are in line with expectations. The yearly commitments and funds are in line with the budget endorsed at the 42<sup>nd</sup> General Session.

**23. Position of the EC Program Fund (MTF/INT/003/EEC).** (Financial Statement at 31-12-2017 **Table 7**).

The 2<sup>nd</sup> Biennium Budget Revised **Table 10** as per 94<sup>th</sup> ExCom comments, is in full compliance with, and in full support of the agreed work programme. The budget revision actions into the FAO System will be taken after the closure of the 2017 financial year, together with re-allocation of funds 2017 to year 2018.

The 2<sup>nd</sup> biennium expenditures are reported on a monthly basis to Pillars and Component Manager. They include expenditure tracking by budget line to allow better monitoring by components, supported by a Indicator/Milestones report every three months. The expenditure for activities for the second biennium at 31-12-2017 was **USD 352,018**.

The contracts line forecast and partly committed since October 2017 is circa **EUR 865,897** (shown by component **Table 8**).

The detailed three-month expenditures and six-month activities plan are shown in **Table 9**.

The proposal of a contract for 2<sup>nd</sup> Biennium (2017-2019) with the Pirbright Institute (€ 455,106) was shared with DG-SANTE as agreed and specified in the GAF (*the Financial Unit of DG-SANTE have cross-checked the proposed agreement, in order to rule-out double financing of activities under other EC contracts held with the same Institute*). DG-SANTE agreed EuFMD could proceed with the finalization of the Letter of Agreement according to FAO's standard contracting modality with non-profit organisations.

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**24. EC Phase III EC Financial Verification Report**

FAO is in process of replying to the final report of the verification mission, made by the EC in October 2017, contesting about USD 15,000 of the overall "ineligible" findings of **USD 30,551.08**. Delay in FAO reply is due to the fact of the responsible officer *FAO EU verification support* was out of contract in December and January. The letter should be sent to EC by early March 2018. It must be noted that "ineligible" findings bear a direct consequence for EuFMD Member States, since the amount for now (USD 30,551) would need to be found from the Administrative Funds, provided by the MS.

**Table 2 – Management Responsibility: Pillar and Component Managers September 2017****EuFMD /EC Action 2017 (Phase IV)**

**BOLD= Continuity. Red= change.** TSO: Training Support Officer. STP: Short Term Placement. KS: Keith Sumption; NR: Nadia Rumich; FR: Fabrizio Rosso; GG: Graeme Garner; JM: Jenny Maud; AUS: Australian funds (to 12/2013)

Pillar	Comp	Comp.	Supervisor	Component (Output) Manager	Assisted by
I	1.1	<b>Training-RT</b>	M.Hovari	STP: R. Abascal	
	1.2	<b>Contingency Planning</b>		RMSO: G.Garner	
	1.3	<b>THRACE</b>		STP: P. Motta	
	1.4	<b>Balkans</b>		STP: vacant	
	1.5	<b>Res Fund</b>		RMSO: G. Garner	
	1.6	<b>Crisis</b>			
	1.7	<b>PTS</b>			
	1.8	<b>Surveillance Rep</b>		RMSO: Graeme Garner	M.McLaws, M. Scicluna
II	2.1	<b>Turkey/GEO</b>	F.Rosso	D.Imanbayeva	I. Keskin
	2.2	<b>Israel/Cyprus</b>		A.Bakkouri	
	2.3	<b>REMESA</b>		A.Bakkouri	
	2.4	<b>PII- Training</b>		J.Maud	D.Imanbayeva, I. Keskin
III	3.1	<b>Monitoring</b>	Nick Lyons	C. Bartels	N. Lyons N.Rumich
	3.2	<b>PCP</b>	Nick Lyons	C. Bartels	
	3.3	<b>Global Lab</b>	Nick Lyons	K.van Maanen	
	3.4	<b>PIII- Training</b>	Nick Lyons	J. Maud, STP: B.Adhikari	

**Table 3 - Financial Statement at 31-12-2017 – MTF/INT/011/MUL –TF 904200**

<u>STATEMENT 1</u>				
MTF/INT/011/MUL - TF number 904200				
EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE				
<u>Financial Report from 1st January to 31 December 2017</u>				
	USD	USD	Eur	Eur
<b><u>Balance as at 1 January 2017</u></b>		470,146		419,370
Interest received	0			0
Contributions from member countries and institute	621,860		554,699	0
Project Income Earned (Child)	0		0	0
<b><u>Expenditure</u></b>				
Salaries	80,741		72,021	
Consultant	464,548		419,327	
Contracts	6,760		6,030	
Duty Travel	51,614		46,040	
Locally Contracted labour	510		465	
Training		-6,733		-6,006
Hospitality	0		0	
General Operating Expenses	3,562	3,430	3,177	3,060
Expendable Equipment	649		579	
Non-Expendable Equipment	4,319		3,853	
Total Expenditure		<u>602,539</u>		<u>537,465</u>
<b><u>Balance as at 31 December 2017</u></b>		<b><u>489,467</u></b>		<b><u>436,605</u></b>

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**Table 4 – Member State Contributions at 31-12-2017**

TRUST FUND No. 9042.00 - MTF/INT/011/MUL -							
Inter-Regional - European Commission for the Control of Foot-and-Mouth Disease							
Status of Contributions year 2017 as at 31 December 2017							
ORACLE CODE: TF-AGADD-TFAA97AA89122							
Member Governments	Outstanding previous year at 01/01/2017	Contribution due for 2017	Received up to 31/12/2017	Outstanding year 2016-2017 at 31/12/2017	Contribution Due for 2018	Received up to 15/02/2018	Outstanding at 31-12-2018
ALBANIA	16,570	4,504	16,570	4,504	4,504	-	9,008
AUSTRIA	-	15,650	15,650	-	15,650	-	15,650
BELGIUM	23,386	23,386	46,772	-	23,386	-	23,386
BOSNIA	-	4,504	4,504	-	4,504	-	4,504
BULGARIA	17,290	4,504	21,794	-	4,504	-	4,504
CYPRUS	-	4,504	4,504	-	4,504	-	4,504
CROATIA	-	4,504	-	4,504	4,504	-	9,008
CZECH REPUBLIC	-	13,809	13,809	-	13,809	13,809	-
DENMARK	-	23,386	23,386	-	23,386	-	23,386
ESTONIA	-	4,504	4,504	-	4,504	-	4,504
FINLAND	-	13,809	13,809	-	13,809	-	13,809
FRANCE	-	46,611	46,611	-	46,611	-	46,611
GEORGIA	-	4,504	4,504	-	4,504	-	4,504
GERMANY	-	46,611	46,611	-	46,611	-	46,611
GREECE	-	15,650	15,650	-	15,650	-	15,650
HUNGARY	-	13,809	13,809	-	13,809	13,809	-
ICELAND	-	-	-	-	4,504	-	4,504
IRELAND	-	15,650	15,650	-	15,650	-	15,650
ISRAEL	-	13,809	13,809	-	13,809	-	13,809
ITALY	-	46,611	-	46,611	46,611	-	93,222
LATVIA	-	4,504	4,504	-	4,504	-	4,504
LITHUANIA	-	4,504	4,504	-	4,504	-	4,504
LUXEMBOURG	4,504	4,504	-	9,008	4,504	-	13,512
FYR of MACEDONIA	29,524	4,504	34,028	-	4,504	-	4,504
MALTA	4,504	4,504	9,008	-	4,504	-	4,504
NETHERLANDS	-	23,386	23,386	-	23,386	-	23,386
NORWAY	-	15,650	15,650	-	15,650	-	15,650
POLAND	23,386	23,386	46,772	-	23,386	-	23,386
PORTUGAL	13,809	13,809	13,809	13,809	13,809	-	27,618
ROMANIA	-	15,650	-	15,650	15,650	-	31,300
SERBIA	-	13,809	13,809	-	13,809	-	13,809
SLOVAK REPUBLIC	-	13,809	13,839	(30)	13,809	13,779	-
SLOVENIA	-	4,504	4,504	-	4,504	-	4,504
SPAIN	-	23,386	23,386	-	23,386	-	23,386
SWEDEN	-	23,386	23,386	-	23,386	-	23,386
SWITZERLAND	-	23,386	23,386	-	23,386	-	23,386
TURKEY	-	23,386	-	23,386	23,386	-	46,772
UNITED KINGDOM	-	46,611	46,611	-	46,611	-	46,611
<b>TOTALS</b>	<b>132,973</b>	<b>606,997</b>	<b>621,860</b>	<b>117,442</b>	<b>611,501</b>	<b>41,397</b>	<b>687,546</b>

(668.00) \\*

The Slovak Republic, Czech Republic and Hungary have paid their 2018 Contributions in Dec. 2017 or early 2018

\\*Serbia in 2016 overpaid by USD 668 amount has been credited to their 2017 invoice

**Table 5 - Financial Statement MUL 004 Child - Emergency Aid Programme 31-12-2017**

**STATEMENT 3**

MTF/INT/004/MUL - TF number 909700

Foot and Mouth Disease - Emergency Aid Programme

Financial Report from 1 December 2017 to 31 December 2017

	USD	USD	Eur	Eur
<b>Balance as at 1 December 2017</b>	(9,098)		(8,106)	0
Interest received			0	
Contribution received	0		0	0
Refund to donor		0		0
<b>Expenditure</b>				
Salaries Professional			0	
Consultancy		(5,241)	0	-4,675
Contracts	331		295	
Locally Contracted Labour	142		127	
Duty Travel	0		0	
Training	742		662	
Hospitality			0	
Technical Support Services	0		0	
General Operating Expenses	460		410	
Expendable Equipment		(7,388)	0	-6,590,096
Non-Expendable Equipment	1,190		1,061	
Support Costs 6%		(2,274)	0	-2,028
Less: Total Expenditure		_(12,038)		(10,738)
<b>Balance as at 31 December 2017</b>		2,949		2,630,608

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**Table 6 - Financial Statement MUL 004 Baby 01 - Emergency Aid Programme (Australia) at 31-12-2017**

**STATEMENT 4**

**MTF/INT/004/MUL - TF number 909700 Baby 01 Australia**

**Foot and Mouth Disease - Emergency Aid Programme**

**Financial Report from 1 January 2017 to 31 December 2017**

	USD	USD	Eur	Eur
<b>Balance as at 1 January 2017</b>		116,734		104,127
Interest received	0			
Contribution received	228,373		203,709	0
Refund to donor		0		0
<b>Expenditure</b>				
Salaries Professional			0	
Consultancy	123,976		110,587	
Contracts	0		0	
Locally Contracted Labour	0		0	
Duty Travel	27,220		24,280	
Training	56,941		50,791	
Hospitality			0	
Technical Support Services	0		0	
General Operating Expenses	10,131		9,037	
Expendable Equipment	12,589		11,229	
Non-Expendable Equipment	0		0	
Support Costs 6%	11,276		10,058	0
Less: Total Expenditure		242,133		215,983
<b>Balance as at 31 December 2017</b>		102,974		91,852.8080

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**Table 7 - Financial Statement at 31-12-2017 – MTF/INT/003/EEC**

**STATEMENT 2**

**MTF/INT/003/EEC - TF number 617197**

**EU Funded Activities (Phase IV: 2015 - 2019) carried out by the FAO European Commission for the Control of Foot-and-Mouth Disease (EUFMD)**

Financial Report from 1 January to 31 December 2017

	USD	USD	Eur	Eur
<b>Balance as at 1 December 2017</b>		357,935		319,278
Interest received	0			
Contribution received	2,283,654			2,037,019
Refund to donor		0		0
<b>Expenditure</b>				
Salaries Professional	218,249		194,678	
Consultancy	966,244		861,890	
Contracts	177,474		158,307	
Locally Contracted Labour	0		0	
Duty Travel	330,516		294,820	
Training	57,173		50,998	
Hospitality	161		144	
Technical Support Services	0		0	
General Operating Expenses	44,834		39,892	
Expendable Equipment	49,391		44,057	
Non-Expendable Equipment	0		0	
Support Costs 7%	69,701		62,173	0
<b>Less: Total Expenditure</b>		<b>1,913,741</b>		<b>1,707,057</b>
<b>Balance as at 31 December 2017</b>		<b>727,848</b>		<b>649,240,4160</b>

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**Table 8 – Details commitment Contract Line since 01-10-2017**

Supplier	LoA Name	Total Amount LoA	Comp.
Friedrich-Loeffler Institut (FLI) (USD 28,332.58)	Improved system for Monitoring and Evaluation of the progress of regional programmes on FMD control under Pillar III - Improved uptake of the global strategy for the progressive control of FMD	EUR 23,715.23	1.5
French Agricultural Research Centre for International Development (CIRAD) (USD 200,709.60)	Services for the development of Foot and Mouth Disease (FMD) risk map surveillance system based on risk information and mapping tool for southern European neighbourhood and for the evaluation of the potential for development FMD control options in West and Central Africa	EUR 168,000	1.5 - 50% 2.2.3 - 2% 2.3.1- 5% 2.3.2 - 6% 2.3.3 - 23% 2.4.1 - 8% 3.1.3 - 6%
Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana (IZSLT) (USD 91,752.96)	Services for the reduction of the Foot-and-Mouth Disease (FMD) risk to European Commission for the control of Foot-and-Mouth Disease (EuFMD) Member countries and for improving the uptake of the global strategy for progressive control of FMD	EUR 76,800	2.1.1 - 16% 2.1.2 - 25% 2.2.2 - 9% 2.2.3 - 8% 2.4.1 - 11% 3.1.3 - 11% 3.2.3 - 20%
The Pirbright Institute (TPI) (USD 543,715.14)	World reference laboratory services in support of the FAO/OIE global FMD laboratory network as part of the global FMD strategy and in support of FMD control in the European neighbourhood	EUR 455,106	3.3/1.7
Vétérinaires Sans Frontières (VSF) - Suisse (USD 23,893)	Services for the development of a system for Foot and Mouth Disease (FMD) outbreak detection, sample collection and submission, and for the evaluation of the potential for development FMD control options in Mali	EUR 20,000	3.3
The Pirbright Institute (USD 55,355.49)	Improved system for Monitoring and Evaluation of the progress of regional programmes on FMD control under Pillar III - Improved uptake of the global strategy for the Progressive control of FMD	GBP 42,919.21	1.5
French Agency for Food, Environmental Health & Safety (ANSES) (USD 86,546.75)	Improved system for Monitoring and Evaluation of the progress of regional programmes on Foot and Mouth Disease (FMD) control under Pillar III - Improved uptake of the global strategy for the Progressive control of FMD” and “Improved FMD management in Turkey and neighbours under Pillar II - Reduced risk to Members from the European neighbourhood: Progressive Control in neighbouring regions"	(EUR 46,336) EUR 75,940	1.5
<b>USD 1,030,309.52</b>		<b>EUR 865,897</b>	



Table 9: Three Months Expenditures - Activity Plan October 2017- March 2018

	3 months Expenditures 1 Oct. 2017 - 31/12/2017					Calendar activities October 2017 - March 2018						
	Overall PILLAR Manager Keith Sumption		Total Budget Allocated Phase IV 2nd biennium	3 months Expenses Oct. 2017 - Dec. 2017	12.5 % of project completion	Balance available	Oct'17	Nov'17	Dec'17	Jan'18	Feb'18	Mar'18
	Components	Beneficiaries Managers										
<b>PILLAR I</b> Supervisor Mark Hovari 2'07'906 €	1.1.E-learning programme		€ 522,975	€ 27,078	5%	€ 495,897	_Post Vaccination Monitoring (P. II) _Risk Analysis Along the Value Chain (P. II) _FMD Investigation Training Course In Russian (P.II)	_Post Vaccination Monitoring (P. II) _Risk Analysis Along the Value Chain (P.II) _FMD Laboratory Investigation Training Course (P.III) _FMD Emergency Preparation Course for Australia (Baby 01)	_FMD Emergency Preparation Course for the Caribbean (P. I)	_FMD Emergency Preparation Course for the Caribbean (P. I) _FMD Emergency Preparation Course for the UK (P. I) _Post Vaccination Monitoring (P.III)	_Post Vaccination Monitoring (P.III)	
	1.1	Training for Member States	Mark Hovari/ Ruth Abascal oliva					_NTC 27 Real Time Training Course - Nakuru, Kenya	_NTC 28 Real Time Training Course - Nakuru, Kenya		_NTC 29 Real Time Training Course - Kathmandu, Nepal	Crisis Management Workshop - Kaunas, Lithuania
	1.2	Improved Contingency Planning	Mark Hovari / Graeme Garner	€ 142,154	€ 18,920	13%	€ 123,234			_1st WS of the Project: Development and application of a European FMD Spread Model - Vienna, Austria		
	1.3	THRACE Region	Paolo Motta / Ipek Keskin	€ 377,000	€ 60,594	16%	€ 316,406	Tripartite Meeting - Dublin, Ireland				EuFMD - 1st Disease Reporting Training course - Svilengrad, Bulgaria _THRACE Management Meeting - Svilengrad, Bulgaria
	1.4	BALKANS Region	Mark Hovari + STP (TBC)	€ 202,110	€ 1,972	1%	€ 200,138					
	1.5	EuFMD Fund for applied RESEARCH	Keith Sumption	€ 372,387	€ 107,492	29%	€ 264,895	_Support mission for EuFMD-FAR project in Iran _GFRA Scientific Meeting-Seoul, S.Korea		_OS'18 Site inspection in Apulia and Sicily (Carraz-Tomat)		_Expert group on alternatives to the r-value; improving quantitative indices for probability of protection - FAO HQ
	1.6	Emergency Response	Keith Sumption	€ 323,780	€ -	0%	€ 323,780					
	1.7	Proficiency Testing Scheme	Kees Van Maanen	€ 46,300	€ 2,185	5%	€ 44,115					
	1.8	Risk Analysis and Communication	Melissa McLaws / Maria Teresa Scicluna	€ 84,200	€ 15,451	18%	€ 68,749					
<b>PILLAR II</b> Supervisor Fabrizio Rosso 1'090'500 €	2.1	SOUTH EAST EUROPE SEE/ West Eurasia	Carsten Potzsch / Dinara Imanbayeva	€ 356,500	€ 30,642	9%	€ 325,858	_Meeting at FAO HQ on Comp. 2.1 (Potzsch)			_Trans Caucasus Regional WS on FMD control and PCP - Telavi (Kakheti), Georgia	EuFMD meetinf FAO HQ
	2.2	South East MEDITERRANEAN SEM / Cyprus - Israel	Fabrizio Rosso	€ 260,000	€ 16,730	6%	€ 243,270	_2nd PPR and 4th FMD Regional Roadmap Meetings Middle East - Amman, Jordan			_FMD-PCP workshop for Risk Based Strategic Plan development in Jordan - Amman, Jordan	
	2.3	Support to REMESA North Africa	Fabrizio Rosso / Abdenacer Bakkouri	€ 326,000	€ 9,658	3%	€ 316,342		_Mission to Tunis, Tunisia (Bakkouri) _Mission to Algiers, Algeria (Bakkouri)	_15th JPC REMESA - Amman, Jordan _Meeting at CIRAD - Montpellier, France (Rosso)	_Mission to Rabat, Morocco (Bakkouri)	_Atelier sur la détection précoce et la confiance en l'absence de circulation virale de la Fièvre aphteuse en Algérie, Maroc et Tunisie - Tunis, Tunisie
	2.4	Pillar II Training development and coordination	Jenny Maud	€ 148,000	€ 24,904	17%	€ 123,096					
<b>PILLAR III</b> Supervisor Nicholas Lyons 1'067'152 €	3.1	Support to Global progress monitoring	Nadia Rumich / Nick Lyons	€ 86,894	€ 2,796	3%	€ 84,098					
	3.2	Method and guidelines for application of PCP-FMD	Chris BARTELS	€ 155,954	€ 14,230	9%	€ 141,724				EuFMD team meeting in FAO HQ (Bartels) _Safe Trade and FMD Control Training (STFC) Course - FAO HQ	EuFMD meetinf FAO HQ
	3.3	Laboratory Support FMD reference lab serv. support regional epidemio surv. lab networks	Kees Van Maanen	€ 628,772	€ 16,340	3%	€ 612,432	_Meeting in FAO HQ (vanMaanen)	_OIE Think Tank Meeting in OIE HQ Paris, France	_The 12th OIE/FAO FMD Reference Laboratories Network Annual Meeting Pretoria, South Africa _Meeting on FMD for the EARLN - Addis Ababa, Ethiopia (vanMaanen) _Pirbright Institute Meetings - Pirbright, UK (Sumption)		
	3.4	Global access to PCP-FMD training resources	Jenny Maud / Chris Bartels	€ 195,532	€ 3,026	2%	€ 192,506					
<b>4'228'558 € Total Budget Allowances 2017-2019</b>			<b>€ 4,228,558</b>	<b>€ 352,018</b>	<b>8%</b>	<b>€ 3,876,540</b>						
MTF/INT/011/MUL Title EuFMD Executive Committee Meeting & Workshop							_94th Executive Committee Meeting - Dublin, IrH23:W24eland				_1st International Veterinary Vaccinology Network Meeting - Nairobi, Kenya (Sumption - funded) _MSU Conference - Washington	_95th Executive Committee Meeting Budapest, Hungary _EuFMD Special Committee for Biorisk Management (SCBRM) - Palermo, Italy
Trainings /Contributions Donor Australia Training Contributions Emergency (UK, Lebano, US, Spain, and Germany,China Link Tads ,Ireland)								_KTC 25 Real Time Training Course - Kathmandu, Nepal _KTC 26 Real Time Training Course - Kathmandu, Nepal			_KTC 27 Real Time Training Course - Kathmandu, Nepal _KTC 28 Real Time Training Course - Kathmandu, Nepal	

Table 10: Revised 4 year Budget Phase IV 2015-2019 (GAF)

Revised Budget Phase IV - 4 years (GAF)																							
PILLARS I - II - III						Components Pillar I										Components Pillar II				Components Pillar III			
Accounts	Description	Pillar I	Pillar II	Pillar III	Proposed Total		Component 1.1	Component 1.2	Component 1.3	Component 1.4	Component 1.5	Component 1.6	Component 1.7	Component 1.8	Component 2.1	Component 2.2	Component 2.3	Component 2.4	Component 3.1	Component 3.2	Component 3.3	Component 3.4	
		EURO	EURO	EURO	EURO		EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	
5300	Salaries Professional	229,690	100,998	68,418	399,106	399,106	0.0%	59,730	30,408	40,182	19,548	30,408	18,462	544	30,408	40,182	24,978	30,408	5,430	4,344	29,322	9,774	24,978
5570	Consultants Op	279595	185631	128239	593,464	566,708	4.7%	109115	29367	68358	28230	18189	5645	5645	15047	62434	33876	38880	50441	45174	50700	17789	14575
5570	Consultant Tech	923,807	633,023	336,518	1,893,348	1,695,550	11.7%	262,310	37,006	398,875	71,191	63,481	27,923	4,201	58,820	272,515	114,396	123,404	122,708	52,871	131,899	52,702	99,046
5650	Contracts	766,393	201,015	953,839	1,921,247	1,687,725	13.8%	50,649	42,773	10,000	0	311,419	240,000	101,552	10,000	40,000	33,000	61,000	67,015	25,000	23000	820,984	84,855
5900	Duty Travel	812,513	417,548	161,806	1,391,867	1,456,390	-4.4%	382,719	94,433	101,998	102,351	92,604	9,221	4,187	25,000	136,242	130,718	143,588	7,000	35,110	56,620	38,746	31,330
5920	Training	141,836	269,551	28,000	439,387	584,894	-24.9%	78,246	5,000	12,000	35,000	5,000	890	1,500	4,200	90,651	55,781	123,119	0		11,500	11,500	5,000
6000	Procurement	255,302	86,835	114,363	456,500	605,894	-24.7%	33,942	0	94,141	42,571	3,100	81,548	0	0	13,000	26,931	46,904	0		9,000	105,363	
6150	Report Costs	5,376	2,050	1,778	9,204	9,204	0.0%	953	494	738	708	874	867	176	566	712	512	450	376	302	32	878	566
6160	Project Evaluation Cost	47,924	12,668	13,420	74,012	74,012	0.0%	7,544	2,886	8,740	6,500	5,416	15,144	1,136	558	4,856	3,436	3,840	536	2,664	886	8,880	990
6300	General Operating Expenses	206,678	67,943	23,879	298,500	397,152	-24.8%	78,241	7,500	48,580	37,784	33,608	965	0	0	19,691	22,667	4,585	21,000		19	0	23,860
	<b>Subtotal</b>	<b>3,669,114</b>	<b>1,977,262</b>	<b>1,830,260</b>	<b>7,476,635</b>	<b>7,476,635</b>		<b>1,063,449</b>	<b>249,867</b>	<b>783,612</b>	<b>343,883</b>	<b>564,099</b>	<b>400,665</b>	<b>118,941</b>	<b>144,599</b>	<b>680,283</b>	<b>446,295</b>	<b>576,178</b>	<b>274,506</b>	<b>165,465</b>	<b>312,978</b>	<b>1,066,616</b>	<b>285,200</b>
<i>Grand Subtotal</i>	€ 7,476,635																						
<i>Support Cost. 7%</i>	€ 523,364	1,203,402	818,654	464,757	2,486,812		371,425	66,373	467,233	99,421	81,670	33,568	9,846	73,867	334,949	148,272	162,284	173,149	98,045	182,599	70,491	113,621	
<b>GRAND TOTAL</b>	€ 8,000,000																						
								CONSULTANT (ALL)															

Revised 2<sup>nd</sup> Biennium Phase IV 2017-2019 (WP)

Budget Phase IV - 2nd Biennium (WP)																							
PILLARS I - II - III						Components Pillar I										Components Pillar II				Components Pillar III			
Accounts	Description	Pillar I	Pillar II	Pillar III	Proposed Total	Compon ent 1.1	Compon ent 1.2	Compon ent 1.3	Compon ent 1.4	Compon ent 1.5	Compon ent 1.6	Compon ent 1.7	Compon ent 1.8	Compon ent 2.1	Compon ent 2.2	Compon ent 2.3	Compon ent 2.4	Compon ent 3.1	Compon ent 3.2	Compon ent 3.3	Compon ent 3.4		
		EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	
5300	Salaries Professional	114,845	50,499	34,209	199,553	29,865	15,204	20,091	9,774	15,204	9,231	272	15,204	20,091	12,489	15,204	2,715	2,172	14,661	4,887	12,489		
5570	Consultants Op	161395	106368	74977	342,740	59513	16183	41855	16183	10960	3236	3236	10229	36631	19420	24420	25897	25897	29131	7000	12949		
5570	Consultant Tech	471,300	302,000	184,191	957,491	130,000	20,000	190,000	33,500	40,000	10,000	2,800	45,000	126,000	50,000	53,000	73,000	27,960	71,954	24,600	59,677		
5650	Contracts	642,736	181,000	599,388	1,423,124	40,000	42,773	10,000	0	260,963	240,000	39,000	10,000	40,000	33,000	61,000	47,000	25,000	23000	466,533	84,855		
5900	Duty Travel	512,881	276,000	133,434	922,315	223,000	66,881	69,000	73,000	48,000	5,000	3,000	25,000	90,000	88,000	91,000	7,000	33,934	40,500	36,000	23,000		
5920	Training	125,094	190,000	28,000	343,094	62,294	5,000	12,000	35,000	5,000	100	1,500	4,200	70,000	45,000	75,000	0		11,500	11,500	5,000		
6000	Procurement	170,790	80,500	99,139	350,429	17,500	0	56,000	25,610	3,100	68,580	0	0	13,000	24,000	43,500	0		9,000	90,139			
6150	Report Costs	2,688	1,025	889	4,602	477	247	369	354	437	434	88	283	356	256	225	188	151	16	439	283		
6160	Project Evaluation Cost	23,962	6,334	6,710	37,006	3,772	1,443	4,370	3,250	2,708	7,572	568	279	2,428	1,718	1,920	268	1,332	443	4,440	495		
6300	General Operating Expenses	148,105	61,000	23,000	232,105	50,181	7,500	40,000	35,000	15,324	100	0	0	17,500	20,000	2,500	21,000		0	0	23,000		
	<b>Subtotal</b>	<b>2,373,796</b>	<b>1,254,726</b>	<b>1,183,937</b>	<b>4,812,459</b>	<b>616,602</b>	<b>175,231</b>	<b>443,685</b>	<b>231,671</b>	<b>401,696</b>	<b>344,253</b>	<b>50,464</b>	<b>110,195</b>	<b>416,006</b>	<b>293,883</b>	<b>367,769</b>	<b>177,068</b>	<b>116,446</b>	<b>200,205</b>	<b>645,538</b>	<b>221,748</b>		
<i>Grand Subtotal</i>	€ 4,812,459																						
<i>Support Cost. 7%</i>	€ 336,872	632,695	408,368	259,168	1,300,231	189,513	36,183	231,855	49,683	50,960	13,236	6,036	55,229	162,631	69,420	77,420	98,897	53,857	101,085	31,600	72,626		
<b>GRAND TOTAL</b>	€ 5,149,331																						
								CONSULTANT (ALL)															

## APPENDICES

1. FAO-EuFMD/EC/OIE Tripartite Meeting on control of FMD and other exotic diseases in the Southern Balkans
2. Workshop for the project: Development and application of a European foot-and-mouth disease spread model EuFMD-iS



## 1. Report

### FAO-EuFMD/EC/OIE Tripartite Meeting on control of FMD and other exotic diseases in the Southern Balkans

*12<sup>th</sup> October 2017 - Backweston, Ireland*

#### Introduction

A meeting of the FAO-EuFMD/EC/OIE Tripartite on the Control of FMD and other exotic diseases in the Southern Balkans was held in Backweston, Ireland, on 12<sup>th</sup> October 2017, with the participation of representatives from the State Veterinary Services of Bulgaria, Greece, Turkey and from the EC, FAO, EuFMD, and OIE (see **Appendix 1** for Agenda and **Appendix 2** for list of participants).

The **main objectives** of the meeting were to:

- provide an overview of the activities since the last Tripartite meeting held on 27<sup>th</sup> February 2017 in Sofia, Bulgaria, under EuFMD Workplan 2015-17 Component 1.3. THRACE;
- present and agree on the upcoming plan under the EuFMD workplan 2017-19 for component 1.3 THRACE, featuring the main change of incorporating more activities to better understand farmer reporting in the region;
- review and discuss the epidemiological situation and the control measures implemented in the three countries for Foot and Mouth Disease (FMD), Sheep and Goat Pox (SGP), Peste des Petits Ruminants (PPR), Lumpy Skin Disease (LSD) and other major transboundary animal diseases.

#### 1. Conclusions and Recommendations

##### Conclusions

1. The EuFMD Workplan 2017-19 for Component 1.3 THRACE was discussed and considered in depth, gaining the support of the Tripartite and the three countries;
2. The active surveillance activities under the THRACE program will continue without interruptions until September 2018. Further information will be gathered through EuFMD activities to develop a better understanding of the sensitivity of the farmer reporting in the Thrace area, in this time frame. Based on the outcome of these activities, a decision will have to be made on continuing with active surveillance activities (started in 2013) or shift focus to increasing the level of farmer reporting. A Tripartite meeting will be held in June 2018 to address this issue;
3. The THRACE surveillance programme, implemented as part of the EC funded activities and managed by EuFMD, has provided high (above 95 %) level of confidence in the absence of circulating FMDV in European part of Turkey and the neighbouring areas of Greece and Bulgaria;
4. SGP is still a significant concern for the area. Information on outbreak investigation on SGP both in Greek Islands and Turkish Thrace was shared. The route of introduction of SGP to these areas is still unclear, highlighting the need for improved local capacity building in farmer reporting and enhancing skills in outbreak investigation;

5. The Assured Emergency Supply Option (AESOP) for FMD vaccine was discussed with the group as a solution for rapidly providing adequate vaccine doses and strains to react to an FMD emergency in Thrace region;
6. The results of the post-vaccination serology study conducted on cattle originating from Turkish Thrace, vaccinated against FMD serotype A, G-VII with vaccine produced in Turkey were satisfactory and viewed as a valuable step moving forward. The initial aim of the study was to test the level of protection provided by the vaccine(s) developed and administered in Turkey against circulating strains of the G-VII. More work on the reporting of the results was requested along with further studies, to be conducted in the future;
7. The surveillance and information sharing between the three countries is broadly consistent with the Statement in Intentions signed during the 42<sup>nd</sup> EuFMD General Session, on April 2017, in Rome Italy;
8. The implementation of the Risk-Based Strategic Plan for FMD control by the Turkish authorities, starting from 2017, is a cause for optimism for the improvement in the control of FMD in west Anatolia in 2017-18, and for its progression towards PCP stage 3. However, some elements, such as the lack of strategy for small ruminant population or the implementation of animal movement control, remain a point of concern;
9. Turkish Thrace areas have launched a disease control program to achieve PPR zonal free status by 2019, vaccination having ceased since the beginning of 2017. Turkey has requested EuFMD's assistance with the design of their PPR active clinical surveillance program aiming at early detection of the disease. The activities conducted in Turkey are considered to be in line with the Global PPR strategy. The PPR Global Secretariat will be kept informed on the progress and if needed consulted;
10. Bulgaria will lead the EU presidency in the first half of 2018. One of the topics proposed is wildlife and EuFMD was invited to contribute to this topic. This would be a good opportunity to show progress made on FMD in connection to wildlife in recent years;
11. For reconfirmation of the OIE status of freedom for FMD, the OIE highlighted that member states need to include evidence of freedom for their entire country, not just specific regions. Providing evidence on the level of passive surveillance and follow up was also encouraged;
12. Greece expressed its desire to receive national training on exotic disease crisis management in early 2018 as set in their Co-Financing plan agreed with EC. The budgetary funds to do so are not available under the EC. EuFMD offered to assist with provision of in-house experts, if available, but travel, venue and logistical costs of such a workshop are outside the scope of the current EuFMD workplan component 1.3.

## Recommendations

1. A Tripartite Meeting be held in June 2018 (in Istanbul, Turkey) to decide on the focus of future surveillance activities for Component 1.3 THRACE after September 2018;
2. The post vaccination serology study conducted in Turkish Thrace be repeated;
3. There be more in-depth information sharing on SGP outbreak investigation outcomes between the three countries, with special attention on Mediterranean area of Turkey.

## Acknowledgements

The Department of Agriculture, Food and the Marine (DAFM), Ireland is gratefully acknowledged for hosting the Meeting. The excellent support of Dr Eoin Ryan is highly appreciated.

## County Presentations

### Greece

Dr Sotiria-Eleni Antoniou gave the country presentation on behalf of Greece. The surveillance activities under the Thrace project have continued, and clinical surveillance activities for FMD are carried out throughout the country through slaughterhouse inspections and in synergy with other control programs, such as LSD vaccination. The telephone surveillance program focusing on farmers reporting the absence or presence of FMD or other TADs set up two years ago is still ongoing with varying degree of participation by farmers. In July 2017, an on-line simulation exercise was carried out to test the familiarity of veterinary staff with contingency plans and relevant documentation in case of an emergency. PPR awareness training continues in the country. New outbreaks of SGP have occurred on the Greek Islands (Lesvos) starting from September 2017. It is unclear if this is a continuation of the outbreak starting end of 2016 or a new incursion. Slaughterhouses were mentioned as a risk factor as some animals slaughtered there might not originate from the island, but from other places. Having more in depth information on the SGP situation in the coastline region of Turkey bordering the islands would be valuable. A co-financing program funded by European Commission on protective measures against transboundary animal diseases (TADs) for 2017 was approved and implementation will start shortly.

### Bulgaria

Dr Tsviatko Alexandrov gave the country presentation on behalf of Bulgaria. The surveillance activities in Thrace region have continued. Bulgaria, similarly to Greece, has an approved co-financing program funded by European Commission on protective measures against transboundary animal diseases (TADs) for 2017. Mass vaccination against LSD will be continued in order to prevent re-occurrence of the disease and maintain the immunity of the animals. There have been no outbreaks of SGP or PPR reported since the last meeting. An example was given where the suspicion of FMD and TADs was raised in Bulgaria and the outbreak investigation concluded that the animals were suffering from Orf. To note, Bulgaria is taking part in two international projects: one with The Pirbright Institute on Crimean-Congo haemorrhagic fever and one on non-invasive surveillance for LSDV in wild ruminants with Friedrich Loeffler Institute (FLI).

### Turkey

Dr Abdulnaci Bulut reported on the FMD situation in Turkey and the control measures in place to prevent entry into Turkish Thrace. Anatolia is still endemic for FMD. Currently, the circulating virus strains are Serotype O (O PanAsia1), A (Asia/GVII) and Asia1, although the latter has not been recorded since July 2015 in Turkey. One hundred and eighty-eight outbreaks of FMD were reported between January and August 2017. This is below the average number of outbreaks over the past ten years. Turkish Thrace still remains free with vaccination (since 2010).

There was one outbreak of SGP in Turkish Thrace, on March 2017 in İpsala, Edirne (in 2016 the total number of outbreaks was three in Turkish Thrace). The outbreak investigation results were shared during the meeting: 120 young goats died. There were no apparent clinical sign, but Pendik laboratory confirmed SGP. A further 80 young goats kids were slaughtered due to control measures and ring vaccination was applied around the outbreak area. Dr Sumption highlighted that the manifestation of the sudden death syndrome seems strange assuming maternal immunity of the kids. Dr Alf Füssel enquired about the transportation protocol for small ruminants from Anatolia to Thrace in respect of SGP and PPR. Dr Bulut stated that movement restriction in case of outbreaks are in place and in case of PPR a similar stringent protocol (as the one for FMD) will be applied in the future. SGP outbreaks still occur in the Mediterranean Region of Turkey, bordering the Greek Islands.

In Thrace, the last PPR outbreak was in 2013 and vaccination has stopped since early 2017. The aim is to achieve zonal freedom in Thrace by 2019. In Anatolia, 33 outbreaks have occurred up till August 2017. A strategy plan has been implemented in Turkey since 2016 for regional progressive eradication of the disease by 2023. Since implementing the LSD mass vaccination, there have been no outbreak of LSD in 2017 in Turkish Thrace. Dr Bulut also summarized the new FMD control strategy for Turkey, specifically Anatolia. The targets are to reach PCP stage 3 by 2018, PCP stage 4 by 2021, PCP stage 5 by 2022 and reach freedom with vaccination status by 2023. The main elements are to focus on “aggressive activities” such as more stringent movement restriction and vaccination (booster for young stock). Also mentioned was the use of high potency vaccines,

increased active clinical surveillance and stamping out if outbreaks occur in key livestock areas. The new strategy will be finalized by November 2017. Dr Sumption highlighted the need for a definite strategy for small ruminants as in Turkey there are 44 million small ruminants and 14 million large ruminants.

### List of participants

Name	Institution	Email
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## 2. Report

### Workshop for the project: Development and application of a European foot-and-mouth disease spread model

#### EuFMD-iS

5<sup>th</sup> to 7<sup>th</sup> December 2017, Vienna, Austria

#### Introduction

The Australian Department of Agriculture and Water Resources' foot-and-mouth disease (FMD) model, Australian Animal Disease Model (AADIS) (Bradhurst et al., 2015), was successfully used in two EuFMD-funded disease modelling training workshops in 2014 and 2016. Participants identified the potential for AADIS to be used to support emergency disease preparedness in Europe.

In 2016 at a Central European CVO meeting, Austria proposed a regional cross-border modeling initiative for Transboundary Animal Diseases, and the group asked EuFMD to support this activity. The EuFMD Technical Committee approved the use of FAR funding to support adaptation of the AADIS model to European jurisdictions, datasets, and control options. In October 2017 the EuFMD Executive Committee endorsed support for this work with a pilot project involving a number of central European countries.

The project "Development and application of a European foot-and-mouth disease spread model" aims to work with the participating central European countries to develop a disease model that simulates the spread and control of FMD within and between countries. Following consultation with the collaborating countries, a workshop was organized to progress the project.

#### Objectives

The purpose of the workshop was to bring the participating countries and EuFMD staff and modelling expertise together to discuss the scope of a multi-country European disease spread model. Also, to identify the country-specific data required to set up and parameterize a European FMD spread model and agree on a process for countries to provide this data in agreed formats so it can be incorporated into the model.

Key issues for the workshop were:

- the scope and functionality of a European FMD spread model
- the data required for setting up livestock populations for disease modelling studies
- the approaches to, and data required for, representing FMD transmission within and between countries
- the approaches to, and data required for, modelling FMD control, consistent with the European FMD directive.
- data requirements for assessing the economic impact of outbreaks and costs of control measures
- the importance of, and approaches to, model testing and verification

#### Workshop Summary

The workshop was held in Vienna, Austria from the 5<sup>th</sup> to the 7<sup>th</sup> of December 2017 with participation of representatives from the State Veterinary Services of Austria, Bulgaria, Croatia, Hungary, Italy and Romania, the EuFMD, and an observer from The European Food Safety Authority (EFSA). Slovenia, a late inclusion in the project, was unable to attend. The list of participants and their affiliations is provided as Appendix 2. The purpose of the workshop was to:

- engage with project collaborators and share information on livestock industries, animal health infrastructure and emergency disease preparedness arrangements;
- introduce participants to disease modelling principles and approaches;

- consider data requirements to build a European FMD spread model;
- agree on a modelling approach, including livestock production regions and herd categories;
- develop a work plan for countries to provide national data in agreed formats;
- agree on project time frames and deliverables.

The workshop covered a range of issues relevant to developing a multi-country FMD spread model and included presentations, demonstrations, discussions and exercises.

The first day covered the project background, aims and objectives, country presentations on livestock industries and animal health infrastructure including emergency disease preparedness. It also introduced participants to the AADIS model and to applications and use of disease models in policy, planning and training. Data sharing and confidentiality were discussed.

Day two considered data needs for building a European FMD model. The main areas covered were setting up national datasets, modelling disease spread and modelling FMD control. Issues discussed included defining livestock production regions within countries, developing a common system for classifying herds; approaches and data sources for parameterizing disease models, using the European Trade Control and Expert System (TRACES) to analyze and summarize livestock movement patterns between countries, and incorporating disease control measures including cost implications.

Day three was on collecting and reporting country data; the importance of model testing, verification and validation; and the logistics, hardware and software requirements for running the model. The short-term and long-term milestones were discussed and participants worked on country action plans.

The full workshop agenda is provided as **Appendix 1**.

## Conclusions and Recommendations

The workshop met its objectives. There was good engagement with participants, with countries reaching agreement on key aspects of the project including defining livestock production regions and herd categories for modelling (see below). Countries have agreed to supply the data needed to parameterize the model according to defined templates (to be provided by EuFMD).

The EFSA observer was enthusiastic about the modelling project and indicated his interest in continuing to be involved. He noted that EFSA have a mandate to do a risk analyses on animal health and will be seeking similar data to that required by the model (herd populations, movement of animals, etc).

EuFMD will brief Slovenia on the workshop outcomes and expectations for participating countries.

Workshop participants reached agreement on the following key areas:

### 1. Regions

AADIS allows regional heterogeneity in livestock production systems to be represented through the division of a country into regions. For example, a beef herd in the mountainous north of a country may have quite different animal movement characteristics to a beef herd in the southern plains of a country. The following regions based on the NUTS (Nomenclature des Unités Territoriales Statistiques) territorial classification system were tentatively proposed by the countries:

- Italy: 4 regions (North, Central, South and Islands)
- Croatia: 2 regions (equal to the NUTS 2 areas)
- Bulgaria: 5 Regions (based on the 6 NUTS 2 areas with the merging of the two northern NUTS 2 areas)
- Romania: 4 regions (based on the NUTS 1 areas)
- Austria: 3 regions (North, West and South)
- Hungary: 4-6 regions (consolidation of the 20 NUTS 3 areas)
- Slovenia: not present at workshop, thus not known at this point.

Each country is to finalize their regional definitions and advise EuFMD. Ideally each country should include a geospatial shapefile corresponding to the defined regions, however if this is not possible then a NUTS area map marked up with regional boundaries will suffice.

All countries agreed to share their mappings of region to Local Veterinary Units (LVUs) with each other.

## 2. Herd Types

The AADIS epidemiological unit of spread is the herd – defined as a group of co-mingling animals of the same species and under the same production system. A farm (or holding) may have one or more herds. The following common herd types were agreed to by the countries:

1. Large commercial dairy - a herd of cattle kept to primarily produce and sell milk (i.e., specialist milk production).
2. Large commercial beef – a herd of cattle kept to primarily produce and sell meat (i.e., specialist beef production).
3. Small commercial cattle – a herd cattle kept to primarily produce and sell meat and/or milk on a smaller, more local scale. Herd sizes are typically smaller than a large commercial beef herd.
4. Commercial buffalo – a herd of buffalo kept for milk or meat production.
5. Commercial small ruminants – a herd of small ruminants kept to primarily produce and sell meat/milk/wool commercially.
6. Large-scale commercial fattening pig – a herd of pigs kept under intensive production system that are grown and sold for slaughter for pig meat production.
7. Large-scale commercial breeding pig – a herd of pigs kept under intensive production system for producing replacement pigs to be sold to other holdings (e.g. fattening farms).
8. Small-scale commercial pig – a herd of pigs kept primarily to produce and sell meat on a smaller, local scale. Biosecurity is generally lower than large scale intensive production systems.
9. Backyard – a small herd of animals (cattle, buffalo, sheep, goat, pig) kept primarily for self consumption (i.e., non-commercial).

## 3. Herd datasets

(i) Countries are to first provide EuFMD with a preliminary herd dataset containing location coordinates, species and number of animals in each herd.

- Austria, Italy and Croatia have coordinates available for all herds.
- Romania, Bulgaria and Hungary have coordinates for commercial holdings but not for small scale or backyard holdings.
- If there is sensitivity about using exact locations, countries may choose to scramble locations by adding some random variability to the exact coordinates
- The focus of the first herd dataset is on commercial farms.
- Artificial locations should be created for small holdings that do not have location data. EuFMD is available to assist with this process.

(ii) Countries are to subsequently provide EuFMD with a full herd dataset in which herds are allocated to one of the agreed common herd types.

- Data for the calendar year 2016 should be used.
- Herds should be classified on the basis of species and key differences in production systems and biosecurity risks.
- When allocating herd types to herds, the first step should be to separate backyard farms from commercial farms.
- If a holding has more than one herd type (e.g. cattle and small ruminants, cattle and pigs), these should be entered into a country's herd dataset as separate herds with the same location coordinates.
- If a herd could be associated with more than one herd type then it should be assigned the herd type with the highest risk category. (For example, if a large-scale commercial pig herd is involved both in fattening and breeding, it should be categorised as a breeding herd type).
- Each herd must have a herd type however a herd type need not have any herds assigned. That is, if no herds match a given herd type in a country there is no need to use the herd type.

#### 4. TRACES data

- Countries agreed to access their TRACES data for the purposes of modelling between-country spread of disease.
- Only countries within the project will be required to access their TRACES data (i.e., seven countries including Slovenia).
- Only one year of TRACES data should be used, that for calendar year 2016.
- All countries indicated that they are likely to be able to obtain the data requested.
- EuFMD will provide countries with data templates and a guideline on how to download the data.
- An additional expert will be contracted by EuFMD to provide technical support on TRACES.
- An “R” (R Core Team, 2013) tool will be provided by Austria to assist countries in the extraction of the necessary animal movement data from TRACES.

#### 5. Control Measures

Countries agreed that both standard EU control measures and optional emergency vaccination strategies should be available in the model.

#### 6. Assembly Centres

Countries agreed that assembly centres/animal markets should be included in the model, but further research is needed on how to best proceed. This might be discussed on a country-by-country basis as the function and importance of assembly centres/animal markets varies between countries. Control posts/resting places could also be explored at a later stage.

#### 7. Data confidentiality

Austria, Bulgaria, Croatia and Romania had no data confidentiality concerns by the end of the workshop. Hungary and Italy are to undertake internal discussions and advise EuFMD of any concerns.

### Project Plans

#### Model data milestones

Task	Target date	Actionee
Data templates (in spreadsheet form) for the herd dataset and regions provided to the participating countries.	15 Dec 2017	EuFMD
Definition of the <u>regional boundaries</u> within each country (with respect to NUTS areas). Creation of regional shapefiles OR provision of a scanned map of NUTS areas marked up with the regional boundaries. Mapping of each region in a country to the LVUs they contain.	10 Jan 2018	Countries
<u>Preliminary herd dataset</u> provided to EuFMD with the following fields: <ul style="list-style-type: none"> <li>• herd location (lat/long coordinates)</li> <li>• species</li> <li>• number of animals in the herd</li> </ul> Note that the focus is commercial herds. Backyard herds should only be defined if the data is readily available. There is no need to categorize the herds by herd type at this time.	10 Jan 2018	Countries
Data template for the TRACES data (required to model between-country spread) provided to the countries.	10 Jan 2018	EuFMD
Combined master list of all agreed regional boundary definitions provided to the countries.	17 Jan 2018	EuFMD
“R” tool created to facilitate the extraction of TRACES data.	17 Jan 2018	Austria

TRACES data (required to model between-country spread) provided to EuFMD.	22 Jan 2018	Countries
On-line meeting on herd type categorization. Each country to describe how they plan to do (or have done), the herd type categorization.	22 – 26 Jan 2018	EuFMD + Countries
Final herd dataset provided to EuFMD with the following fields: <ul style="list-style-type: none"> <li>• herd location (lat/long coordinates)</li> <li>• species</li> <li>• <u>herd type</u></li> <li>• number of animals in the herd</li> </ul>	15 Feb 2018	Countries
On-line meeting to better understand the data needed to model within-country spread	19 – 23 Feb 2018	EuFMD + Countries
Template for the data required to model within-country spread provided to the countries.	28 Feb 2018	EuFMD
Data required to model within-country spread provided to EuFMD.	15 Mar 2018	Countries
Templates for the parameterisation data for control measures and resources (numbers of available teams and vaccine doses) provided to countries.	15 Apr 2018	EuFMD
Parameterisation data required for control measures and resourcing provided to EuFMD.	15 May 2018	Countries

### Model software development milestones

Component	Target date	Actionee
<u>Prototype 1 – proof of concept featuring a test herd dataset, test spread pathways, test control measures and test resources:</u> <ul style="list-style-type: none"> <li>• Visualisation of country/region boundaries (based on country/region shapefiles supplied by countries/EuFMD)</li> <li>• Visualisation and GUI employs EU terminology</li> <li>• Test herd dataset comprising commercial premises only (generated by EuFMD based on the preliminary herd data supplied by countries).</li> <li>• Simplified test spread pathways that apply to <u>all</u> countries (using generalised default parameterisation supplied by EuFMD)</li> <li>• Test control measures defined per country (using generalised default parameterisation supplied by EuFMD)</li> <li>• Test resources (teams and vaccine doses) defined per country (using generalised default parameterisation supplied by EuFMD)</li> </ul>	28 Feb 2018	EuFMD + countries
<u>Prototype 2 – incorporation of a realistic herd dataset and country-dependent test spread pathways:</u> <ul style="list-style-type: none"> <li>• Herd dataset updated with country-supplied data (herds, herd types and herd locations) for commercial premises only</li> <li>• Test spread pathways defined <u>per country</u> (using generalised default parameterisation supplied by EuFMD)</li> </ul>	31 Mar 2018	EuFMD + countries
<u>Prototype 3 – realistic spread pathways, control measures and resources:</u> <ul style="list-style-type: none"> <li>• Realistic spread pathways defined per country (using country-specific parameterisation)</li> <li>• Realistic control measures defined per country (using country-supplied parameterisation)</li> <li>• Realistic resources defined per country (using country-supplied parameterisation)</li> <li>• Preliminary model verification and validation</li> </ul>	30 Jun 2018	EuFMD + countries

### **Acknowledgements**

The Austrian Agency for Health and Food Safety is gratefully acknowledged for hosting the workshop. In particular, the support of Dr Ian Kopacka and Dr Simon Stockreiter was much appreciated.

### **References**

- Bradhurst R.A., Roche S.E., East I.J., Kwan P. and Garner M.G. (2015). A hybrid modelling approach to simulating foot-and-mouth disease outbreaks in Australian livestock. Frontiers in Environmental Science, 3(17). doi:10.3389/fenvs.2015.00017*
- R Core Team (2013). A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. ISBN 3-900051-07-0, URL <http://www.R-project.org/>.*

## Agenda

Day 1 – Tuesday		
14.00 – 14.30	Opening welcome	Austria
	EuFMD Welcome and Introductions	M. Hovari, EuFMD
14.30 – 15.00	Project aim and objectives Background and why we here?	G. Garner, EuFMD
15.00 – 15.30	Country presentations (10 minutes summaries each) Livestock industries, animal health infrastructure, emergency disease preparedness	Group – AT, IT, HR
15.30 – 16.00	<i>Coffee Break</i>	
16.00 – 16.30	Country presentations (10 minutes each) - continued	Group – HU, RO, BG
16.30 – 16.50	Overview of AADIS – what is it?	R. Bradhurst,
16.50 – 17.00	Applications and use of models for policy/planning/training and exercises	G. Garner
17.00 – 17.15	Data requirements to build Europe FMD spread model	G. Garner
	Data confidentiality and sharing (within - between countries)	All
Day 2 - Wednesday		
08.30 - 09.15	Country adaptations: Description and key features of livestock production in each country - linking LVUs and NUTS 2 areas	All
09.15 – 09.45	Demonstration: Using herd population data in the model	M. De La Puente R. Bradhurst
09.45 – 10.30	Discussion: Common herd classification system – the best common approach	R. Bradhurst, M. Hovari, All
10.30 - 11.00	<i>Coffee Break</i>	
11.00 - 11.30	Demonstration: Modelling FMD spread in AADIS	R. Bradhurst
11.00 – 11:45	Discussion on spread pathways: <ul style="list-style-type: none"> <li>• Aggregated versus disaggregated pathways</li> <li>• Within country and between country spread</li> </ul>	G. Garner, All
11.45 – 12.30	Information needs from countries for the model: <ul style="list-style-type: none"> <li>• Direct movements</li> <li>• Indirect movements</li> <li>• Local spread</li> <li>• Markets / Assembly Center / Control Posts</li> <li>• Wind-borne spread</li> </ul>	All
12.30 - 13.30	<i>Lunch</i>	
13.30 - 14.00	Alternate approaches and data sources for parametrizing disease spread Exercise 1: Allocating movement destinations	G. Garner
14.00 – 15.00	Between country spread Using TRACES to analyse and summarise livestock movement patterns (demonstration)	M. De La Puente
15.00 - 15.30	Recap – any questions on data requirements	M. Hovari, All
15.30 – 16.00	<i>Coffee Break</i>	
16.00 - 16.30	FMD control policies in Europe – What is most important to include	M. Hovari, All
16.30 – 17.00	Control measures in AADIS demonstration and what data is needed <ul style="list-style-type: none"> <li>• Effectiveness of different measures</li> <li>• Resources for control</li> </ul>	G. Garner, R. Bradhurst
	Exercise 2: Effectiveness of tracing	
17.00 – 17.30	Economic impact - reporting in AADIS demonstration <ul style="list-style-type: none"> <li>• Cost data required for estimating impact and comparing control strategies</li> </ul>	R. Bradhurst G. Garner
	Exercise 3: Allocating resources for disease control	

Social Event		
Day 3 - Thursday		
08.30 - 09.00	Summary of yesterday's outcome (conclusions)	M. Hovari
09.00 – 09.30	Collecting and reporting country data – use of the e-learning site	All M. Hovari
09.30 – 10.30	Overview of model testing, verification and validation	G. Garner R. Bradhurst
10.30 - 11.00	<i>Coffee Break</i>	
11.00- 11.30	Short and long term milestones in the project	M. Hovari G. Garner
11.30- 12.00	Country action plans	M. Hovari G. Garner
12.00 – 12.30	Logistics of using AADIS modelling platform (hardware, licencing, future developments)	R. Bradhurst
12.30 – 13.00	Close and wrap up	M. Hovari
13.00 -	<i>Lunch</i>	

## List of participants

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## EuFMD Training Programme: Progress, Updates and Plans

*Mark Hovari, Jenny Maud, Dinara Imanbayeva*

### Key messages

- More than eighty percent of the available Training Credits have been allocated by Member States and close to thirty percent of the allocated credits has already been delivered by EuFMD.
- The Regional Approach proposed at the beginning of the biennium needs further considerations as allocations were lower than anticipated.
- Risk Analysis Along the Value Chain and Russian Language FMD Investigation Training Course organized for Pillar Two countries.
- Post Vaccination Monitoring and FMD Laboratory Investigation Training Course organized for global audiences.
- Working in partnership with the OIE, an e-learning and face-to-face workshop on Safer Trade and FMD Control will be organized in April.
- A programme of e-learning courses are planned across Pillars II and III for the next six months, including pilot French language e-learning courses for countries in West and Central Africa and national level courses in South Asia, particularly targeting India.

### Training under Pillar I

Under component 1.1. (Training for Member States) delivery of various training events has started after the initial planning phase of the first two months of the 2017-19 programme. The majority of the Member States have allocated all of their available training credits to the training offered. Seventy-five percent of allocations were made towards the main face-to-face events, such as the Real Time Training Course and workshops. Among the workshops the highest interest was shown towards Crisis Management and the lowest was veterinary ethics. A bit above thirteen percent was dedicated towards e-learning, where both already developed national courses will be delivered (United Kingdom, France, Spain and Serbia) and new ones will be developed in the upcoming year (Hungarian and Polish). The remaining ten percent allocations were made towards laboratory training and increasing modelling capacity along with the new regional approach.

The regional approach allocations were lower than anticipated as only one-fourth of the MS showed interest. The majority of Member States did not consider the additional funds contributed by EuFMD in case of regional event a high enough incentive. Nevertheless one initiative (between Spain and Portugal) will likely be realized in November 2018.

Three Real Time Training Courses have been organized for a total of thirty-two participants, a National FMD Emergency Preparedness Course (FEPC) started in the United Kingdom in February and a workshop on Crisis Management will be delivered in mid-March. Also as unique, English-Spanish dual language FEPC was organized for the Caribbean Islands, together with CaribVet and PANAFTOSA in January involving most of the United Kingdom, French and Dutch overseas territories.

Regional EuFMD initiatives such as Component 1.3 (early detection and confidence diseased freedom in Thrace) and Component 1.4 (increasing emergency preparedness in the Balkans) will also deliver training events from March 2018. The work in Thrace is focusing on building capacity on how to evaluate FMD reporting in Thrace and the focus in the Balkans will be making the first steps in the GET Prepared pathway.

## Training under Pillar II

Two e-learning courses have been organized for Pillar II countries under Component 2.4 in the period September to March 2017.

### *Risk Analysis Along the Value Chain*

This in-depth course involve four hours of online training per week for a six week period. Participants worked in country groups to produce an assignment each week, moving through the process of value chain mapping, risk analysis and identification of control options in a step-by-step process, a core part of the development of a Risk Based Strategic Plan for FMD Control. 65% of those nominated completed this challenging course, with a particular success being the high quality of assignments received and strong engagement from a number of Pillar II countries.

### *Russian language FMD Investigation Training Course*

190 Participants from 11 countries were nominated for this 12 hour online course covering FMD diagnosis, outbreak investigation and aspects of disease control. The course was conducted entirely in Russian, with notable participation from countries with whom EuFMD has had less contact so far, including Tajikistan, Turkmenistan and Uzbekistan. Course completion was lower than expected for such a course in other regions (27%) however given the high numbers nominated this nevertheless represents 52 colleagues trained.

### *Development of training on Safe Trade and FMD Control in partnership with the OIE*

Following discussions with the OIE plans have been finalized to conduct two training workshops on aspects of FMD control relating to trade and the OIE code. The first workshop will be conducted in April, on "Safe Trade and FMD Control". A second workshop on Containment zones is planned for September 2018.

The Safer Trade and FMD Control workshop will be conducted in Turkey. A competitive selection procedure is currently underway and all Pillar II countries have been invited to nominate participants alongside selected others including Kazakhstan, Kyrgyzstan and the Russian Federation. The workshop will involve EuFMD and OIE experts working together to present interactive, scenario based exercises and take part in one field visit, aiming to take a practical and applied approach to trade issues under the OIE code.

An e-learning module on the World Trade Organization Sanitary and Phytosanitary Measures and aspects of the OIE code relevant to FMD control is currently in development, again in close collaboration with the OIE. This module will be used as an induction course for the planned workshop, and following this pilot, may be made more widely available as an open access resource.

### *Planned e-learning courses for the next six months under component 2.4*

A plan for e-learning development and delivery for component 2.4 during 2018 has been developed and is included below. In the next six months new courses will be developed including the finalization of open access short modules on the Risk-Based Strategic Plan and a French language version of the FMD Socio-economic Impact in-depth e-learning course, which will be completed under the letter of agreement with CIRAD. Russian language versions of the in-depth courses will also be developed.

Pillar II countries are currently engaged in an English language in-depth course on post-vaccination monitoring, which will lead into face to face workshops on this topic to be conducted later in the year. Local language versions of the FMD Investigation Training course will be conducted, in French, Turkish and Arabic.

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)												

## Training under Pillar III

Training under component 3.4 focusses particularly on South Asia and West and Central Africa for the 2017-19 period, alongside the activities of the Progressive Control Practitioners' Network which aims to make training resources on the Progressive Control Pathway available to global audiences.

### *In-depth Post Vaccination Monitoring*

Countries from Southern Africa and South Asia nominated participants for this in-depth course which was based on the FAO/OIE guidelines on FMD vaccination and post vaccination monitoring and tutored by Giancarlo Ferrari, David Paton and Nick Lyons. 23 participants completed the full course and received their certificates while a further 10 completed most of the course. 86% of respondents to the post-course survey rated the course as "very good".

### *FMD Laboratory Investigation Training Course*

This course was organized in partnership with The Pirbright Institute (TPI). The course involved approximately 12 hours of study, with two webinars, and fourteen short online modules. The training modules were produced by TPI, and the course hosted on the EuFMD e-Learning platform, with EuFMD managing all logistical aspects of the course. The course was co-tutored by EuFMD and TPI experts. A total of 108 applications were received from 52 countries across pillars I, II and III. Survey feedback results were positive with 76% of respondents rating the course as "very good". The course will be modified based on the feedback received from this first pilot and delivered again later in 2018.

### *Upcoming e-learning for South Asia*

The e-learning planned in South Asia for the next biennium is detailed below. Where possible, a number of places on English language courses will be made available to countries in other regions, in order to extend the reach of e-learning, where possible.

A specific focus in the next months will be the identification of suitable partners for development and delivery of national level e-learning courses in India, and the delivery of the first of these course(s).

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

#### *Upcoming e-learning for West and Central Africa*

As part of the process of understanding the training needs in West and Central Africa and the applicability of e-learning in this new region for EuFMD activities, an online FMD Investigation Training Course in French language will be conducted for Francophone countries in the region, alongside North African Pillar II countries.

#### *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. The network now has 120 members and between 20 and 30 participants attended each of this month's webinars. The next month's training focus will be on investigation of suspect vaccination failures. In order to be sustainable and have the required impacts the Practitioners' Network needs to involve wider audiences and participation and a communication strategy has been developed in order to better "advertise" the benefits of joining this training network.

## European multi-country FMD Spread model (EuFMD-iS)

Graeme Garner<sup>1</sup>, Mark Hovari<sup>1</sup>, Keith Sumption<sup>1</sup>

<sup>1</sup> European Commission for the Control of Foot and Mouth Disease

### Key messages

- This document provides an update on a project to develop a multi-country European FMD modelling capability. It was recommended by the Standing Technical Committee (STC) and approved at the last ExCom meeting. It is included in the 2017-19 EuFMD workplan under *provide technical support to strengthen national capability on modeling* (Component 1.2);
- The project has received a very positive response with seven countries (Austria, Bulgaria, Croatia, Italy, Hungary, Romania and Slovenia) enrolled. Additional countries including Spain, Turkey and FYR Macedonia have expressed interest in model training;
- A Workshop was held 2-4 December 2017, 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.
- 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 disease model by 30 June 2018.
- Priorities for the further development, or specific questions of interest to pilot users and others, will be identified as the project develops, and these priorities reported every 6 months to the Executive;
- The project is therefore seen as a 10-12 month period of pilot development followed by a further year of development which may include expansion to further European countries, according to their interest.

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 41<sup>st</sup> 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 EuFMD Workplan. Following discussions, a project proposal to adapt the Australian FMD model (AADIS) for use in Europe was submitted and approved under EuFMD – Funds for Applied 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 has been incorporated into EuFMD's workplan as Activity 1.2.1.5 under Component 1.2.

The project objective is to adapt the AADIS model to provide a robust, flexible training tool 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 output from this project will be a new multi-country FMD modelling tool - the **European Foot and Mouth Disease Spread (EuFMD-iS)** model.

The project has received a very positive response with seven countries (Austria, Bulgaria, Croatia, Italy, Hungary, Romania and Slovenia) enrolled. This comfortably exceeds the performance indicator for this activity of three countries being involved in a cross border modelling study. Other countries, including Spain, Turkey and F.Y.R. of Macedonia), are also showing interest in FMD modeling training.

The project is progressing well. Discussions have been held with the Australian Department of Agriculture and Water Resources regarding an intellectual property deed of license for access to the Australian Animal Disease

model (AADIS) software and a document that meet's both Australia and FAO's legal requirements has been prepared and will be finalized in the near future.

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. Participants have identified and defined livestock production regions within their respective countries (Figure 1), and agreed on a common herd classification system.

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.



**Figure 1:** EUFMD-iS modelling project: participating countries with livestock production regions

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. Model development is proceeding through three prototypes progressively incorporating more detail and realistic parameter values as countries collate and provide livestock population, animal movement and other data (Table 1).

Table 1: EUFMD-iS model software development schedule

Development phase	Milestone
Prototype 1 – proof of concept featuring a test herd dataset, test spread pathways, test control measures and test resources	28 Feb 2018
Prototype 2 – incorporation of a realistic herd dataset and country-dependent test spread pathways	31 Mar 2018
Prototype 3 – realistic spread pathways, control measures and resources	30 Jun 2018

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 second workshop to install the software and train country representatives in using the model is proposed for July 2018. It is anticipated that countries will be able to use the model to:

- Study size, duration and economic impact of outbreaks
- Assess potential for establishment and spread of FMD under local conditions
- Test surveillance approaches - early detection
- Look at resource needs and resource management issues
- Compare different response strategies (including use of vaccination)
- Support exercises and training activities

**EuFMDiS**  
European Foot and Mouth Disease Spread model

**IMPROVE READINESS FOR FMD CRISIS MANAGEMENT**

EMERGENCY RESPONSE  
FUND FOR APPLIED RESEARCH  
BALKANS  
THRACE  
IMPROVED CONTINGENCY PLANNING  
TRAINING FOR MEMBER STATES

MEMBER COUNTRIES  
POLYCHIMIA  
SIBIRIYAN VISA

FAO Food and Agriculture Organization of the United Nations  
eofmd european commission for the control of foot and mouth disease

PILLAR I of the EuFMD

FMD NETWORKS

BIRISK MANAGEMENT MODELLING CONTINGENCY PLANNING WELNET VACCINATION FRANCOPHONE EARLN PCP FMD PCP PRACTITIONERS

## Regional FMD programmes for reducing the risk to EuFMD Member countries from the European neighbourhood

Fabrizio Rosso<sup>1</sup>

<sup>1</sup> European Commission for the Control of Foot and Mouth Disease

### Key message

1-Regular support is needed to promote the development of Risk Based Strategic Plans for FMD control (Mauritania, Libya, Lebanon), to improve the capacity to progress along the Progressive Control Pathway engaging with veterinary services to monitor the implementation of the RBSP (Egypt, Jordan, Palestine, Turkey, Georgia, Armenia, Azerbaijan), to progress to PCP stage 3 and to guarantee good level of cooperation within countries within same regions.

2-Specific activities and studies for improving evidence of the quality of the vaccines used and the effectiveness of vaccination programmes are necessary to provide confidence of the efficacy of vaccination control measures implemented and for the optimization of the resources available.

3-Initiatives to produce improved disease risk information are needed to facilitate the better identification of risks (risk mapping) in order to allow the regular update of FMD surveillance and control strategies and better address the risk of FMD introduction and spread.

4- A risk based approach for surveillance should be enhance in order to provide higher confidence of absence of FMDV circulation and early detection and confidence of the efficacy of the official control programme (Algeria, Morocco and Tunisia). The involvement of stakeholders is considered essential for improving the sensitivity of the early warning system.

5-Improving national and regional capacity for the management of FMD through the development and delivery of training programme for national staff (face-to-face training and e-learning) remains a major objective of the EuFMD workplan in order to allow the national veterinary services to gain a more sustainable and long term capacity to prevent and control FMD.

6- The establishment of partnerships with Institutions with a recognized scientific competence and good knowledge of the European neighbouring countries is beneficial to enhance the proficiency of the actions implemented and the achievements of the results foreseen. Letters of Agreements have been signed with CIRAD and IZSLT.

### Progressive Control Pathway progression

In the European neighbourhood there are countries in FMD-PCP stage 2 (Egypt, Turkey, Georgia, Armenia, Azerbaijan), and stage 1 (Jordan, Lebanon, Palestine, Libya, Mauritania). Regular assistance is proposed and provided with workshops, backstop support and trainings tailored to the country needs, considering the epidemiological, economic and political situation.

The support provided to the European neighbouring countries in PCP stage 0-2 can be grouped in: 1- development of RBSP (identify risks and control options); 2 - monitoring and evaluation of the RBSP implemented (evidence of RBSP effectiveness); 3-implementation of a more aggressive strategy for FMD control (progression to stage 3). The purpose of such approach is to assist countries for implementing control and preventive measures appropriate to the level of risk considered acceptable in relation to the human and financial resources available. IZSLT will assist EuFMD in this programme (see partnerships chapter below).

In addition, improvements of network with countries which are progressing along the PCP facilitates the regular collection of information, ensures that such information is analyzed and reported in forms that can update

EuFMD member States on risks and allows to provide them a better assistance for managing prevention and preparedness actions.

### **Post Vaccination Monitoring**

For most pillar II countries that are in PCP stage 1 or 2, a significant proportion of the resources in terms of money, time and human resources is consumed by vaccination programmes. By contrast, monitoring and evaluation of vaccine quality and vaccination programs is little addressed in current FMD programs. For this reason, laboratory capacity and national resources to support post-vaccination monitoring (PVM) are not sufficiently established.

The effectiveness of vaccination programmes in Pillar 2 countries should be enhanced through: a) making available continued education on vaccine and vaccination, b) developing vaccine quality studies and promote their implementation, c) intensifying networking between countries to improve sharing of information and expertise. A specific programme has been established to build up capacity on evaluating FMD vaccination and post-vaccination monitoring. Trainings and small-scale trials for the evaluation of vaccine and studies to evaluate immune responses in vaccinated animals under field conditions will be promoted.

### **Risk information**

The Maghreb and the Sahel are key areas for a number of emerging risks on transboundary animal diseases (TADs) and for their surveillance. A better knowledge of the livestock flows in this region would be a major advance for the anticipation of dangers threatening Europe as well as useful information for the local veterinary services for designing more efficient national disease surveillance and control programs for Foot and Mouth Disease and other most important TADs. The implementation of specific surveys and the monitoring of proxy indicators of these animal movements are key areas for tailoring a risk based approach for surveillance and for the development of an early warning system.

An innovative method developed by CIRAD combining qualitative risk analysis process and risk mapping is proposed to be adopted to assess the risk of introducing and disseminating FMD and other TADs within the countries (Algeria, Tunisia, Morocco, Mauritania, Libya, Egypt) and beyond their borders (Senegal, Chad, Sudan). The resulting risk maps can be used to develop disease surveillance programs based on risks, in order to optimize the veterinary service resources deployed in the field in line with the major risk zones and improve the effectiveness of implemented control measures.

### **Risk based surveillance**

The implementation of a harmonized risk based surveillance able to provide confidence of absence of FMDV circulation and early detection has been indicated at REMESA JPC meetings as an important action to be implemented in the Maghreb region in order to provide evidence of the effectiveness of the official control programmes adopted.

In the Maghreb countries of Algeria Morocco and Tunisia FMD risk-based surveillance in high-risk areas and risk-based related control measures (including risk-based vaccination) are fundamental for an effective risk reduction and to detect the possible incursion of the virus at an early stage. The effective involvement of the key stakeholder (livestock holders and private veterinarian) is essential to ensure the efficiency of national early-warning systems essential to face FMD incursion.

A programme has been proposed focused on early detection and based on a combination of continuous multiple surveillance components (with the involvement of stakeholders) which allows to accumulate confidence of freedom over time.

### **Capacity building**

Improving national and regional capacity for the management of FMD through the development and delivery of training programmes for national staff (face-to-face training and e-learning) remains a major objective of the EuFMD workplan.

Specific trainings have been developed and are regularly delivered to Pillar II counties to facilitate the development of RBSP, its implementation, monitoring and evaluation and the development of control programmes for elimination of virus circulation and reducing the risk of incursion. In addition specific training have been identified with priority for development, in collaboration with OIE, on the application of the OIE code to Safe Trade and Containment zones for FMD.

The learning component of the assistance for European neighbouring countries is focused on the delivery of the new e-learning courses on: a)FMD Investigation Training Course; b)Introduction to the Progressive Control Pathway c)In-depth FMD Socio-economic Impact Analysis d)In-depth FMD Risk Analysis Along the Value Chain; e)In-depth FMD Post Vaccination Monitoring. Recognizing the need to provide training in local languages the in-depth courses are delivered on bi-annual basis in English, French and Russian

Other courses are being developed according to the capacity building needs of the target countries and with the purpose to better integrate the e-learning courses offered with support provided by face to face training and workshops.

### **Partnerships**

The delivery of the EuFMD programme for Pillar II will be assisted by partners with recognized scientific competence and good knowledge of the European neighbouring countries.

- 1- The Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana 'M. Aleandri' (IZSLT) will assist EuFMD on the activities aimed at reduction of FMD risk for EuFMD Member countries, and for improving the uptake of the global strategy for progressive control of FMD. In particular IZSLT will: a) assist the implementation of activities planned within the EuFMD workplan and aimed to improve the capacity of countries to design and implement the Risk-Based Strategic Plans (RBSP) and monitor and evaluate the implementation of control activities under stages 2 and 3 of the Progressive Control Pathway (PCP); b) strengthen capacity of the Regional Advisory Group to better evaluate and follow-up the acceptance of countries in stages from 0 to 3;
- 2- The French Agricultural Research Centre for International Development (CIRAD) will assist the development of FMD risk map surveillance system based on risk information and mapping tool for southern European neighbourhood. In particular CIRAD will: 1) develop a FMD surveillance programme on risk information and mapping tools for southern European neighbourhood, integrating movement patterns of domestic livestock; (2) design a surveillance for FMD early detection in high-risk areas of North Africa; (3) delivery of the EuFMD e-learning course on FMD socio-economic impact assessment to Francophone countries of North, Central and West Africa; (4) evaluate the potential for development of FMD control options in West and Central African countries.

## Support to the Global Programme (Pillar III)

Nick Lyons<sup>1</sup>, Keith Sumption<sup>1</sup>

<sup>1</sup> European Commission for the Control of Foot and Mouth Disease

### Key message

- This document relates to the current and particularly new activities supported under Pillar III of the EuFMD work plan that aims to support the Global programme for FMD control through uptake of the PCP-FMD and other activities of the GFTADs FAO-OIE FMD working group.

- A key new area of activity is providing support to countries that are in provisional stages of the PCP through a “PCP-Support Officer” system whereby experts communicate directly with priority individual countries to motivate and provide technical assistance to assist their progression to the next PCP stage.

- Priority regions include: **West and Central Africa** to enhance surveillance and understand the market potential for FMD vaccines through partners based in the region; and **South Asia** where networking with partner organizations and a series of e-learning courses are planned to build capacity in target areas such as post vaccination monitoring and outbreak investigation.

FMD is a highly transmissible infection often associated with transboundary and long distance movements. Knowledge about disease occurrence in endemic regions is critical for informing contingency plans in free areas by indicating emerging viral lineages and selection of vaccine strains. Moreover, effective control strategies in these regions will reduce the risk of transmission to free areas.

The focus of Pillar III of the EuFMD workplan is to **promote** the uptake of the global strategy for progressive control of disease through supporting requested activities from the GFTADs FAO-OIE FMD working group (WG). There are four components in this Pillar: 3.1 Improved system for M&E of the progress of regional programmes on FMD control; 3.2 Improved capacity, methods, and guidelines for application of the EuFMD, FAO and OIE progressive control pathway for FMD (PCP-FMD); 3.3 Improved international FMD reference laboratory services and their contribution to regional surveillance networks; 3.4 Improved National and Regional Capacity for the Roll-Out of the Global Strategy and the Management of FMD: Pillar III Training Component.

Regional Roadmap meetings (RM) on the PCP-FMD are important for regional networking, monitoring national and regional progress and assisting countries with their progression along the pathway. They are typically held every 1-2 years where countries are assessed on their PCP stage. However, maintaining the momentum between RMs is challenging and has been identified by the WG as a priority area with a request for support sent to EuFMD. There is a need to provide more direct support to individual countries, particular those assessed as being in a provisional stage by the Regional Advisory Group (RAG). A proposal has been made to the WG for a system of “**PCP Support Officers**” (PSOs) that will provide necessary follow-up to countries to support them in reaching the next stage of the PCP. Currently there are 25 countries in provisional stages that will be prioritized for support in the initial phase of this proposal. PSOs will be experts in FMD and the PCP and will be assigned based on their experience in the country and regions. These activities will be coordinated by EuFMD.

Following a request from the WG, a major initiative has begun in **West and Central Africa** (WCA) to build upon the Roadmap meeting in 2016 which identified several countries in PCP stage 0 or provisional stage 1. A strategy document for WCA was written and circulated to the WG following a meeting at OIE in November 2017. The key strategy points in this document include:

1. Encourage regional networking and establish partners
2. To improve knowledge of circulating strains in the region
3. Support the assessment of socio-economic impact of FMD in the region
4. Evaluate the potential for vaccine market in the region with a view to generating interest from producers in developing relevant vaccines for the region
5. Respond to a request from the working group to provide experts to “run 2 national workshops to support development and implementation of RAP”

6. Explore the potential for delivering e-learning courses in the region

Sample submission from WCA is historically poor meaning there is a large gap in surveillance and our understanding of regional epidemiology. To address this gap, a Fund for Applied Research (FAR) was advertised seeking partners for piloting a new approach to **field based surveillance** in the region using lateral flow devices (LFD). The project is funded under component 3.3 and involves a collaboration with ANSES (who will do the testing on the LFDs) and Boehringer-Ingelheim (providing the LFDs). Vétérinaires Sans Frontières (VSF) were awarded the funds which will involve taking samples in central Mali and border regions with Mauritania and Niger where they have ongoing projects. Training will be delivered by EuFMD consultants and ANSES staff on finding appropriate outbreaks and samples as well as performing the diagnostic test procedure. This activity is in addition to the support provided to the WRLFMD in their surveillance activities, co-ordination of OIE-FAO global FMD laboratory network and support to the global proficiency testing scheme. Also with the WRLFMD is the development and implementation of a **FMD Laboratory Investigation Training Course (FLITC)** which was run for the first time in late 2017 and targeted to endemic countries within Pillar II and III work plans.

Under Pillar II of the EuFMD work plan, a LoA has been signed by CIRAD which will involve translation and review of the **guidelines for evaluating socio-economic impact**, a key activity in PCP stage 1. The subsequent e-learning course will also involve countries from WCA in addition to Pillar II countries. Under the same LOA, CIRAD will be performing an evaluation of the **potential vaccine market** in the region which is supported under Pillar III.

In addition to the support provided to WCA, another area of focus within Pillar III is in **South Asia** also in response to the GFTADs FMD Working group. This is an area of demonstrable high risk to other regions including EuFMD member states such as through the emergence of strains from the Indian sub-continent in recent years. Plans are underway to build networks and partnerships in the region, and to provide a series of e-learning courses which in recent experiences of post-vaccination monitoring and the FLITC are readily taken up in the region.



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control of foot-and-mouth disease

| **OPEN SESSION**

29-30-31 October 2018

Borgo Egnazia - Puglia, Italy

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