

# 2016

**EU Funded Activities (2013-2015) carried out by the FAO European  
Commission for the Control of Foot-and-Mouth Disease  
(MTF/INT/003/EEC)**

## FINAL NARRATIVE REPORT



EuFMD

7/6/2016



-  Improve readiness for FMD crisis management by Members
-  Reduce risk to Members from the FMD situation in the European neighbourhood (Progressive Control in neighbouring regions)
-  Greater implementation of the Global Strategy for the control of FMD



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## Acronyms

CA : Contracting Authority  
EMU : Epidemiology and Monitoring Unit  
EuFMD: European Commission for the Control of Foot and Mouth Disease  
FAO: Food and Agriculture Organization  
FMD: Foot and Mouth Disease  
Gf-TADS:  
LoA: Letter of Agreement  
MS: Member States  
OIE: Office International des Epizooties  
PCP: Progressive Control Pathway  
PSSC: Project Steering Subcommittee  
PTF: Project Task Force  
PTS: Proficiency Test Service  
RBSP: Risk Based Strategic Plan  
Remesa: Réseau Méditerranéen Santé Animale  
SCRPD: Special Committee for Research and Program Development  
SO: Strategic Objectives  
STP: Short Term Professional  
WRLFMD: World Reference Laboratory for Foot and Mouth Disease

## SUMMARY REPORT OF THE ACTION

### “EU Funded Activities (2013-2015) carried out by the FAO European Commission for the Control of Foot-and-Mouth Disease”

#### Overview of the Action

1. **The Action was operational** from 1<sup>st</sup> October 2013 until 30<sup>th</sup> September 2015. The 24 month Work Programme was approved by the 40<sup>th</sup> General Session of the EuFMD on 22-24<sup>th</sup> April 2013 and formed the basis of the Action agreed between the Contracting Authority (CA) and FAO for financial support. In compliance with the Grant Agreement description of the Action, detailed workplans for the 13 Component objectives were agreed between EC and the Executive Committee, OIE and FAO at the Lyon Session of the Executive Committee of the EuFMD in September 2013. A subsequent updating of the Workplan was proposed to the CA and agreed in 2015, following submission of the proposal for budget revision.
2. **The Overall Goal of the Action**<sup>1</sup> was - “a lower Foot and Mouth Disease (FMD) risk enabling better trade conditions and higher food security prospects for European stakeholders in the livestock sector”. The indicators for this were stated as “Reduced expenditure from veterinary emergency funds on FMD in the period 2013-2015 compared to the previous 15 year average”. These were stated in the Logical framework for the Action and this impact could not be expected from the project alone but assumed that import risk management and other risk factors were maintained.

#### **Result: achieved.**

There were no FMD cases in EU members, and it is understood the veterinary emergency fund did not make an expenditure relating to FMD outbreaks in this period. The Action involved activities to reduce the risk to Europe, which was high during the past two years, and it is likely that some of the positive impact relates to the risk reduction achieved by the Action.

3. **The Three strategic objectives of the Action** (as indicated in the **Annex 1** to the Project Agreement, and in line with the Three Pillars of the EuFMD Strategy Plan 2013-17<sup>2</sup>) were as follows:
  1. To Improve readiness for FMD crisis management by Members;
  2. To Reduce risk to Members from the FMD situation in the European neighbourhood (progressive control in neighbouring regions);
  3. To Promote the global strategy of progressive control of FMD.

<sup>1</sup> as indicated in the Annex I to the Project Agreement.

<sup>2</sup> As adopted by the 40<sup>th</sup> General Session of the EuFMD, April 22-24th, 2013

The operational objective of maintaining a mechanism for emergency response to an FMD crisis in the European neighbourhood will underpin the first two objectives, and has a Budget for Emergency Response under Component 1.6 of the Action.

As indicated in the Action Log Frame<sup>3</sup>, these Objectives require that Member States (MS) and International Institutions maintain their risk management responsibilities, and the Action was responsible to deliver Outputs useful to them to ensure take up and application. The high focus on involvement of the beneficiaries in the activities (functioning co-ordination frameworks were outputs) ensured MS were engaged from the start in most Components.

## Achievement of Strategic Objectives

The indicators as given the **Annex 1** of the agreement are indicated below, with an assessment of the extent to which they have been achieved. **Please note these are achievement of the beneficiaries** - to which the Action has contributed through outputs under the its Components.

<b>Achievement of Strategic Objectives:</b> in relation to Indicators stated in the Action Log-frame. Note that achievement of these objectives is result of uptake of the project results BY Member States and others, and therefore not under direct control of the EuFMD/FAO.			
	Strategic Objective	Indicator	Results compared to indicators
1	Improved Readiness for FMD crisis management by members	Increase in MS with more than three qualified FMD experts	<b>Achieved with impact:</b> training has been taken up and evidence of MS using this in training their own staff. 90 trained (Real-Time experience), 40 through workshops, over 500 trained across 38 MS in the intensive online course. Five EU countries adopted national (cascade) online training using courses developed in the action.
2	Reduced Risk to Members from the FMD situation in the European neighbourhood (progressive control in neighbouring regions)	Increase in number of countries with national risk based control programs (PCP Stage 2 and above) that implement a control programme together with its required monitoring and evaluation system	<b>Achieved:</b> Five countries achieved provisional or confirmed PCP-Stage 2 (Turkey, Iran, Georgia, Armenia, and Azerbaijan). Partial progress: Egypt, Palestine. Risk deterioration: Syria, Libya, Tunisia, Algeria, required emergency actions (including under the Action).
3	Promoted global strategy of progressive control of FMD	Increase in number of countries with national risk based control programs (PCP Stage 2 and above)	<b>Achieved:</b> Nine countries made progress to PCP Stage 2 or above, in the two-year period, in addition to the five mentioned above. These are: <ul style="list-style-type: none"> <li>• Kazakhstan (zoning with Stage 3 in North)</li> <li>• Kyrgyzstan (provisional stage 2)</li> </ul>

<sup>3</sup> Logical Framework, forming part of the agreement, indicating the relationship of activities, outputs of the action contribute to the overall strategic objectives and goals

			<ul style="list-style-type: none"> <li>• Pakistan (stage 2)</li> <li>• Sudan (stage 2)</li> <li>• Kenya (stage 2)</li> <li>• Rwanda (stage 2)</li> <li>• Jordan (provisional stage 2)</li> <li>• Lebanon (provisional stage 2)</li> <li>• Oman (provisional stage 2)</li> </ul>
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## Achievements of the Action

### 4. Achievements of the Action: the Reports below are divided as follows:

- An overall summary for each Pillar and Component (**Annex 1**)
  - 6 of the 7 Component objectives in Pillar I have been **largely or fully achieved**;
  - 2 of the 3 Component objectives in Pillar II have been **largely achieved**;
  - 2 of the 3 Component objectives in Pillar III have been **largely achieved**.
- A report on achievement on Component level objectives, and on the (38 final outputs, of the 40 originally proposed) Outputs (Expected Results defined in the Workplans) which together contributed to the meeting these (**Annex 2**).
  - 14 of the 18 expected results (Outputs) in Pillar I have been **achieved**;
  - 5 of the 11 expected results (Outputs) in Pillar II have been **achieved**;
  - 5 of the 9 expected results (Outputs) in Pillar III have been **largely achieved**;
  - Overall only one Component did not result in significant outputs, and the issues with delivery of this Component are described in this report.

For two Components, it was decided at an early stage that two outputs could not be achieved (feasibility at start of activities), and these are omitted from the final list. The issues were discussed with the Executive Committee and these particular outputs were deemed not critical to meeting the objective of the Component.

- Tables indicating achievement of the quantitative targets as given in the Agreement (**Annex 1**). It must be noted that some of the original stated targets were not maintained in the Workplans agreed with the Executive at the first meeting after project signature, but overall the expected results were fully met or exceeded, with a few exceptions. (**Annex 3**).

### 5. The Programme Activities: Those eligible for financing through this agreement in the period 2013-2015 were indicated in the Agreement under the three Strategic Goals, and the Objectives of each Component of the Workplan described in the Agreement.

The Action comprised a programme of co-ordinated activities to achieve a set of expected results for each of the 13 Components. The Components each had their own objectives, workplans and associated expected results. Each Component had its own co-ordination framework to ensure close communication with beneficiaries who were at regional level (e.g. the network of

contingency planning officers in Europe) or sub-regional (the Veterinary Services of Balkan countries for example, or REMESA countries in North Africa).

The **Annex 1** to the Action described the objectives, and general expected results, but did not detail the activities, their timetable, or the indicators for each expected result. The agreement allowed for the detailed Component workplans to be finalized with agreement of FAO, OIE, the Executive Committee of the EuFMD and EC (DG-SANTE), at the EuFMD Executive Committee meeting that followed the signature of the financing agreement. This was to ensure that Gf-TADS partners provided their input and indicated their agreement to the workplans, in order to be clear that Gf-TADS partners supported the actions relating to neighbourhood countries and in relation to the Global Strategy. Given the dynamic nature of the disease risk, the Agreement retained an element of flexibility to respond to disease situation, and this was important given the deterioration in FMD security in North Africa, which required change of workplans relating to Component 2.3 (REMESA) to cope with the emergency in Tunisia, Algeria and Morocco.

## 6. **Beneficiaries** in the three Pillars

**Pillar I:** Over half of the financial value programme (Pillar I, 7 Outputs) directly benefitted the 38 EuFMD member states (MS)<sup>4</sup>.

Five of the seven Components directly benefitted or involved all EuFMD MS. **Components 1.3** and **1.4** were sub-regional in focus, directly involving Greece, Bulgaria and Turkey (Component 1.3) and ten mainly West Balkan countries (Component 1.4). **Component 1.5** operated as a competitive research fund, open to all MS. **Component 1.6** was an emergency reserve, for disease emergency response, and **Component 1.7** provided the opportunity for non-EU member states to participate in the annual Proficiency Test (PTS) operated by the EU-Reference Laboratory (Pirbright), on the same basis as EU countries whose participation was guaranteed by direct EU-RL funding from DG-SANTE.

**Pillar II:** The countries directly involved were beneficiaries of the three sub-regional Components, and indirectly, through the reduction of risk, all EuFMD member states. Three EuFMD member states (Turkey, Israel, Georgia) were direct beneficiaries, and indirectly the activities benefitted the six EU countries that are members of REMESA.

**Pillar III:** direct beneficiaries were the countries where the **Progressive Control Pathway (PCP)** progress was recognized or surveillance achieved, and also the international organizations (FAO and OIE) by the support to the Gf-TADS Global Strategy. Indirectly, the PCP progress in several endemic countries reduced the risk these countries pose in their regions and to Europe.

**7. Operational background to the Action:** the Action was operationally active from 1<sup>st</sup> October 2013 until 30<sup>th</sup> September 2015. The 24 month Work Programme was approved by the 40<sup>th</sup> General Session of the EuFMD on 22-24<sup>th</sup> April 2013 and formed the basis of the Action agreed between the Contracting

<sup>4</sup> Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, The Netherlands, Turkey, the United Kingdom



Authority and FAO for financial support. In compliance with the Grant Agreement description of the Action, detailed workplans for the 13 Component objectives were agreed between EC and the Executive Committee, OIE and FAO at the Lyon Session of the Executive Committee in September 2013. A subsequent updating of the Workplan was proposed to the Contracting Authority and agreed in 2015, following submission of the proposal for budget revision. The Action followed the EuFMD Strategic Plan for 2013-15 which had been adopted in April 2013, ensuing from a year of consultation between FAO, OIE, the European Commission and the EuFMD Executive Committee to ensure that programme activities are fully in line with the mandates of the Commission and with the regional coordination under Gf-TADS (Joint OIE and FAO). The Strategic Plan was firmly aligned with the EuFMD Constitution and contributed to the Strategic Objectives (SO) SO5 of FAO's Strategic Framework, in the areas of Improved Emergency Preparedness, National and Regional Policies on risk reduction, and in Coordination and Crisis response.

**8. Project management:** the project was implemented through the signature of the Grant Agreement between the Contracting Authority and the Organization, and through the technical and operational capacity of the EuFMD Commission, which supplied the management, technical and operational inputs and handled the budget holder responsibilities. The EuFMD is an Article XIV body of the FAO, which means it is functionally independent for project management. The Secretariat of the EuFMD hosted by the Organization was responsible for the implementation of the project, and the Executive Secretary was the Lead Technical Officer, Budget Holder and Chairman of the FAO Project Task Force (PTF).

The EuFMD Secretariat is funded by the 38 Member States, with biennial agreement on the administrative budget, with between four and six full time equivalent members of staff funded from the members' contribution and available full time to support the EC project.

The project was managed overall by the Executive Secretary, with each Component (Output) being supervised by one of three members of the senior Secretariat and managed by one of the above officers. Each Component thus had a day-to-day manager and a supervisor, the latter to ensure co-ordination with the other Outputs under the same Pillar.

The operational support team, across the programme, was supported by five positions of which one is funded under MTF/INT/011/MUL and four funded under the EC programme.

The EuFMD Secretariat was supported by an Executive Committee (consisting of Chief Veterinary Officers from EuFMD Members) which met every six months to review the progress and address any operational, management or financial issues that required higher level agreement with the European Commission (EC). The EuFMD was also supported by a Standing Technical Committee (STC) and a Special Commission for Research and Program Development (SCRPD) which advised on the technical and scientific aspects of the programme. The Executive Committee (ExCom) of the EuFMD comprised eight persons, usually Chief Veterinary Officers, elected by the Commission at the biennial General Session. The responsibilities of the Executive Committee are set out in the EuFMD Constitution as are the Rules of Procedure. The Executive Committee had the role of monitoring the progress of the work programme implemented following the previous Session. The Executive Committee is mandated to discuss, amend and approve the programmed activities of the Commission including those of the work programme of action. In line with the Grant Agreement for Phase III, it delegated the responsibility for decision making to a Project Steering Subcommittee (PSSC) comprising the following core members:

- 1) Chairperson of the Executive Committee;
- 2) Vice Chairpersons of the Executive Committee;
- 3) Secretary of the EuFMD Commission;
- 4) European Commission representative for the Directorate General for Health and Food Safety (DG SANTE).

Two meetings of the PSSC took place in addition to those at the regular Executive Committee Sessions, and took decisions relating to updating of the workplan, which were formally proposed to the Contracting Authority 2015 as part of the proposal for a Budget Revision.

**9. Arrangements for monitoring/supervision of this operation and risks involved in its implementation:**

The EuFMD Executive Committee, at which EC, OIE and FAO actively participate, monitored the implementation of the programme every six months in the period October 2013 - September 2015. The progress was also reported to the 41<sup>st</sup> General Session of the EuFMD, where the 38 MS, EC, OIE and FAO are represented, as that body has the function to evaluate progress against the Strategic Plan agreed in 2013.

**10. Reporting:** the Action was reported

- every six months to the Executive Committee, at which DG-SANTE participates, the Reports of which are considered official, as defined in the Special Conditions for this Action;
- at Project Steering Subcommittee (PSSC) meetings, if they intervened between Executive Sessions;
- Narrative report provided to DG-SANTE at the time of the budget revision (March 2015);
- Monthly reports (Global Situation) and online updates following meetings/workshops, as per the communication agreed for Phase III.

**11. Key project management strengths:** include

-The **clear and transparent workplans** agreed with FAO, OIE, the MS (through the Executive) and with the EC (DG-SANTE), with mechanisms every six months for review of the progress and to address the issues of priority setting when new developments (epidemics arose).

-Implementing a **result based management system** with clear management responsibilities for the 13 Components of the workplan.

-ensuring managers remain close to the beneficiary veterinary services through systems for **engagement in every Component** that enables a voice of the target group (demand) through every Component having special advisors or guidance networks from the member states.

An achievement of this way of implementation was that beneficiaries were **directly engaged** and able to provide their feedback to ensure **greater involvement and uptake**. For example, the **Component 1.1** Training programme established a network of 38 focal points from the 38 MS and each one was offered a menu of Training Options and could select training according to notional “credits” according to their priorities relating to FMD emergency management issues. Satisfaction with courses is, as a result, higher as they are closer to demand. Through **innovative means** an adaptable **e-learning course** was launched that meets the demand for rapid training for experts faced with emergencies, and the EU has translated the course into all official languages of the EU, at their cost.

- 12. Impact of the project:** given the short time frame of the Phase III support, the project has made a **major impact**, largely through establishing the co-ordination frameworks that ensured project activities and their outputs were directly taken up and applied by beneficiaries during the action, and not only at the end. The Action had an emphasis on improving the system of engagement with member states and veterinary services, with focus on systems that could be maintained by the states themselves in order for sustainability.

These new systems include the functioning of demand-driven process from the MS, from FAO and OIE (for Gf-TADS support) and from regional groups (REMESA), to ensure the actions were co-ordinated with partners; They also introduce a new system for effective capacity building, such as e-learning tools that have been well taken up by EU and other member states for training at national level.

- 13. Problems encountered:** The security situation in Egypt and Libya has impacted upon field missions, and decisions were taken in the PSSC to shift the activities within the sub-Components to other countries within the region, and to work in different ways (e-learning compared to field training).

The emergency situation (FMD in Tunisia) also impacted the programme, leading to decisions to address the risks to these counties and Europe through redirecting actions from Libya to other countries.

The above relates to only two of the 13 Components so, overall, they are **not a significant issue for implementation**.

The slower-than-expected progress in Component 3.1 relates to difficulties between two partners, FAO and OIE. The demand arrangement whereby the Gf-TADS partners request services from EuFMD worked well for most areas of co-operation and programming.

- 14. Sustainability of the project's achievements:** demand-driven processes were used in the implementation as well as design phase of the Action, to improve the delivery of outputs that would be taken up and used sustainably by the beneficiaries. To achieve this, each of the 13 Components has in its design and in term of activities, a **coordination element** to ensure both a demand-driven programme and better ownership. As the focus of most Components is on the improved capacity for planning and prevention of FMD, the sustainability depends on the value of this increased expertise, technical tools or results obtained at national level. The coordination with beneficiaries was found important to ensure that these outputs were of most immediate use and application. Sustainability is expected in that EU countries must maintain and test their emergency preparedness for FMD and therefore keep in their services the expertise generated under the project, or make use in national training of the training tools developed. For non-EU countries, the emphasis on better management planning (PCP) and the parallel Regional Roadmaps (OIE/FAO) requires that countries plan their progression for the coming five-ten years and provide annual evidence of progress or address their difficulties, which will sustain the process of regular evaluation and updating of plans. The uptake is also likely to be continued from the necessity of revising plans as success and failure occurs, and the outputs of the project will remain available as online resources to sustain this. For countries where some dependence on the project may develop or exist, for example surveillance programme in high risk border regions, the Executive Committee has a clear role relating to developing an exit strategy or ensure sustained attention to the issue by the MS or by securing follow-on financing.

There is evidence from **Phase III** that the focus on supporting national risk managers has been effective, with uptake of the training and new tools provided into national training programmes. The support provided to four countries in the neighbourhood has resulted in change of national FMD status recognised by Gf-TADS and this creates a political driver to sustain this status.

## Annex 1:: Achievements of the Action: Summary

	Objective	To what extent has the overall objective been achieved?
1.1	MS announce capacity for FMD recognition, response training enhanced and FMD expertise network established.	<b>Fully achieved</b>
1.2	Decision support tools (DST) for FMD risk managers available and used in contingency planning (CP) by an increased proportion of MS.	<b>Significant achievement made</b>
1.3	To establish a system which provides <b>continuous confidence in disease freedom</b> and which improves the chances of detecting an outbreak at an early stage.	<b>Largely achieved</b>
1.4	To support the development of FMD emergency management capacity in the Balkan region.	<b>Most outputs achieved, overall objective only partially achieved</b>
1.5	Delivering new knowledge or tools relevant to resolving the priority technical issues faced by MS, including those in the European neighbourhood not free of FMD.	<b>Achieved</b>
1.6	Maintenance of a capacity to provide advice, technical support and assistance to EuFMD MS and countries in the European neighbourhood in the event of an FMD outbreak, or other exotic diseases.	<b>Fully Achieved</b>
1.7	To provide services of the Proficiency Test Services to the NON-EU members of the EuFMD to enable them to participate to the same extent as the NRLs of the Eu28 under the scheme implemented through the EURL at The Pirbright Institute.	<b>Largely achieved</b>
2.1	The objective is to reduce the impact of FMD in Turkey and Georgia (EuFMD MS) and to reduce the risk posed by FMD in the region to all EuFMD MS.	<b>Largely achieved</b>
2.2	To improve the capacity of countries in the region to manage FMD through the framework of PCP activities, to support regional coordination of activities and to improve the information available to risk managers about FMD threats by supporting surveillance information gathering from livestock trade related parts of North East Africa.	<b>Partially achieved</b>
2.3	Assist national FMD risk management as part of the <b>REMESA</b> action plan	<b>Largely achieved</b>
3.1	To collate, analyse and disseminate relevant information on regional FMD control programmes worldwide; support for workshops to coordinate this process.	<b>Limited achievement</b>
3.2	The objective is to enhance the international capacity for the application of the EuFMD/FAO/OIE PCP-FMD through development of tools, guidelines and knowledge transfer.	<b>Substantial achievement</b>
3.3	The objective of this Component is to support the FAO/OIE global FMD laboratory network as part of the global FMD control strategy.	<b>Largely achieved</b>

## Pillar I: Achievement of Components

Under the Pillar Objective (Improved Readiness for FMD crisis management by members), activities were organized towards achievement of:

- Seven Component objectives;
- 17 expected results.

### Summary Report of Achievements

1. **The Training Programme (Component 1.1)** was very successfully taken up by MS and **achieved its three outputs** (expected results) with excellent feedback from national training focal points and trainees. The Training Network (Output 1.1.1), once established, ensured close communication with Training Focal Points across MS, improving the fit between offered training and assessed and expressed needs. The Training Programme (Output 1.1.2) delivered training to 34 of the 38 MS (missing MS are Luxemburg, Cyprus, France and Iceland), with almost all of the available “training credits” being used by MS to select courses from the training menu, including new courses developed as a response to the network requests. The e-learning site (to support knowledge transfer) (Output 1.1.3), once established, grew rapidly in use by MS, with over 1000 registered users.
2. **The Improved Contingency Planning (Component 1.2)**, has **significantly met its objective** of ensuring that decision support tools (DST) for FMD risk managers are available and used in contingency planning by an increased proportion of MS. Substantial progress was made to achieve each of the three expected results, a European modelling network (Output 1.2.1) composed of policy makers and model users from all interested MS, new resources for training on disease modelling and economic analysis in decision-making and simulation exercise design (Output 1.2.2) and in order to ensure better communication and uptake, a network of managers in contingency planning and simulation exercise design (Output 1.2.3).
3. **The Programme for early warning surveillance in the Thrace region of Bulgaria/Greece/Turkey (Component 1.3) met its objectives** relating to FMD in establishing a system which provides continuous confidence in disease freedom and which improves the chances of detecting an outbreak at an early stage. This Component included the establishment of a co-ordination framework for the surveillance activities (**Output 1.3.1**), and establishing a software system into use by the surveillance focal points in the three countries to ensure routine clinical and serological data was assembled close to real-time to enable confidence in disease freedom to be provided as an output to risk managers (**Output 1.3.2**). The undertaking of surveillance activities including sero-surveillance for FMD, in the three countries in compliance with quarterly targets for surveillance, comprised the evidence for freedom, **Output 1.3.3**. The feedback (confidence in DF based on negative surveillance findings) was provided quarterly to national focal points, and reported to the Executive Committee every six months. If DF was seen to drop (delayed surveillance activities in one location) then feedback was immediate to the national focal point. The system established

into place in 2013 was operational over the two-year period and confidence in FMD freedom was maintained at higher than 95% throughout this period in all three countries.

Under request from the EU member countries, the programme was widened to include Sheep and Goat Pox (SGP), Peste des Petits Ruminants (PPR) and Lumpy Skin Disease (LSD) in 2014. It enabled training for early recognition of these diseases to national focal points, significantly assisting in early detection in Greece and Bulgaria and ensuring those countries had greater guidance on contingency. Issues remain with Turkey's level of surveillance of these other diseases in Thrace region that have been given attention in Phase IV.

4. **Improved management capacity for FMD in the Balkan Region (Component 1.4)**, this **substantially delivered the three expected results** and, by undertaking two major multi-country simulation exercises, demonstrated the need for completion and testing of national CPs to countries. It cannot yet be said they have achieved improvement in their plans but the exercises were well received and for most, a first substantial test of their emergency management capacity. This Component delivered a series of regional workshops and desk top simulation exercises leading to two, simultaneous multi-country simulation exercises that tested capacity to manage the national and local responses, in three exercise-countries (Bulgaria, Serbia, FYROM) but which involved all participating countries taking roles. Participating veterinary services (10) of Bulgaria, Greece, Serbia, Croatia, Montenegro, Bosnia and Herzegovina, Albania, FYROM, Kosovo and Moldova were involved in all regional workshops and as observers to the exercises.

**The three outputs were achieved:** a coordination framework for western Balkan countries for emergency planning on FMD (Output 1.4.1), improved contingency plans (CPs) through participation of countries in two multi-country simulation exercises with pre and post exercise training and evaluation on specific themes or chapters of the contingency plans (Output 1.4.2) and integration of national FMD reference centres (laboratories) in the national CPs tested through the simulation exercise (Output 1.4.3).

5. **Research activities relevant to resolve policy issues (Component 1.5)**, this Component had the objective of delivering new knowledge or tools relevant to resolving the priority technical issues faced by MS including those in the European neighbourhood not free of FMD. The priorities for 2013-15 were endorsed by the Executive Committee and three calls for proposals were made. There was a two-stage review process involved in selection and awarding of research funding, with the final decision by the Executive Committee. Funds were dispersed by the EuFMD through Letters of Agreement (LoA) which are contracts between the FAO of the UN with not-for-profit institutions. As an open call and competitive processes were applied, best value for money was a criterion in awarding contracts. The maximum award was notified in advance.

The **objective was achieved**, through seven projects commissioned, successfully completed, and reported. Evidence of tangible use of new knowledge and tools has been received. At least three of these have been taken further by partners. A Global Survey of FMD Research has been completed and published, enabling better identification of gaps and priorities and this has been used by major research funders.

6. **Crisis Management Support (Component 1.6)** achieved its objectives of providing timely and effective emergency support in response to FMD outbreaks in the MS or the European



neighbourhood. Under this Component, technical support and assistance to EUFMD MS and countries in the European neighbourhood in the event of an FMD (and other TADS) outbreaks could be supported. In 2013-15, this was provided in relation to:

- a. FMD incursions in Tunisia, Algeria and Morocco;
- b. LSD incursion into Cyprus, the latter on request of the DG-SANTE by special authorisation.

**7. Proficiency Test Services (Component 1.7), largely achieved its aim** of providing services of the Proficiency Test Services to the NON-EU members of the EuFMD to enable them to participate to the same extent as the NRLSs of the Eu28 under the scheme implemented through the EURL at Pirbright. In 2013, seven non-EU, but EuFMD member states participated in the PTS, with ten additional neighbourhood countries from south-east Europe and North Africa, a total of 17 out of the invited 20. In 2014, greater participation was achieved, with all western Balkans non-EU countries plus Moldova, reaching the target of 20.



## Pillar II: Achievement of Components

Under the Pillar Objective (Reduced Risk to Members from the FMD situation in the European neighbourhood (progressive control in neighbouring regions), activities were organized towards achievement of:

- Three Component objectives, relating to improved risk management in priority countries in three sub-regions of the European neighbourhood where FMD is endemic or high risk;
- Twelve (12) expected results.

### Summary Report of Achievements

1. **South-East Europe: better management in Turkey and neighbours (Component 2.1)**, the overall objective for Component 2.1 has **largely been met**. The FMD situation in Anatolia improved during the Phase III project and infection was not reported in Thrace or cases in Georgia. The risk to other EuFMD MS in Europe remained from the FMD situation in Iran and in the Syria/Iraq zones of insecurity.
2. **South-East Mediterranean: better management in the neighbourhood of Cyprus and Israel (Component 2.2)**. The objective was to improve the capacity of countries in the region to manage FMD through the framework of PCP activities, to support regional coordination of activities and to improve the information available to risk managers about FMD threats by supporting surveillance information gathering. This **overall objective for Component 2.2 has largely been met**. Egypt and Palestine have developed, under guidance, and for the first time, risk-based strategic plans (RBSP) for their national programmes. For Egypt, this RBSP was presented in December 2015 on the Middle East and Northern African regional roadmap meeting in Doha, Qatar, December 2015, shortly after Phase III ended. For Palestine, the RBSP was not completed at the end of Phase III but near completion at the time of writing this report. In both countries outbreak investigation has significantly improved after training/workshops and the number of outbreaks reported and samples collected, typed and characterized have also significantly increased. Considering the endemic status of both countries and the work in progress regarding RBSP development, risk-based surveillance was postponed. A joint workshop on risk-based surveillance and risk-based vaccination is foreseen in phase IV for Israel and Palestine. Despite serious efforts, a steering committee to coordinate FMD activities in Israel and Palestine was not realized, due to the political situation and the tensions between both parties.
3. **Support to the REMESA FMD Action Plan (Component 2.3)**. This Component has **largely delivered** on its objective to assist national risk management through the improvement of cooperation and coordination with national authorities and with other international organizations and the increased level of transparency and reciprocal confidence observed among countries and institutions. However, the epidemic of type O (India 2001 topotype) that affected Tunisia, Algeria and Morocco in 2014-2015, present the case that the national risk management in parts of REMESA (Libya especially) was inadequate and emergency management was required as a result. The workplan was developed in mid-2013, when it was envisaged by OIE that three

countries could progress towards official recognised freedom. The activities required to be changed in the countries as a result of increased insecurity in Libya and the epidemic spread to Tunisia, which are connected. The change in activities towards crisis response and support to scale-up training (online courses) has been a well-appreciated response that has contributed to national risk management especially in Algeria and Morocco.

4. **Improved National and Regional capacity for management of FMD through development and evaluation of training programmes for national staff (Component 2.4).** This Component involved a new set of working arrangements, which report a **solid success**, and regular participation of the EuFMD to the REMESA JPC meetings, organized twice a year by the REMESA Secretariat with all the REMESA countries. During the JPC meetings, the EuFMD systematically presented the status of the activities planned under Component 2.3, discussed the joint support and coordination with FAO and OIE and proposed additional actions according to the epidemiological situation and to needs identified by countries. Plans and reports of Component 2.3 (and as well of Component 2.2) were always endorsed during the REMESA JPC meetings.

## Pillar III: Achievement of Components

Under the Pillar Objective (Greater implementation of the Gf-TADS global strategy for the control of FMD), activities were organized towards achievement of:

- Three Component objectives, relating to monitoring progress, to development of tools and guidelines for application of the PCP-FMD, and to global reference laboratory services;
- Ten (10) expected results.

### Summary Report of Achievements

1. **Improved system for M&E of the progress of regional programmes on FMD control (Component 3.1)**, support to the FAO FMD Unit in collating information for review of progress of regional programmes on FMD control, had the objective to collate, analyse and disseminate relevant information on regional FMD control programmes worldwide and support for workshops to coordinate this process. There was **limited achievement** in this regard. The collation and analysis of information on national control programmes has been undertaken but the expected outcome of developing an annual Global Report did not materialise, and the result of the analysis have not been adequately disseminated to MS or the global community. The risk identified with this Component was its reliance on the Gf-TADS working group to demand specific inputs and to use those that it had earlier requested. This was the only Component directly managed by FAO officers.
2. **Improved capacity, methods and guidelines for application of the EuFMD, FAO and OIE Progressive Control Pathway (PCP) for FMD (Component 3.2)** On the other hand, progress on this Component, which objective is to enhance the international capacity for the application of the EuFMD/FAO/OIE PCP-FMD through development of tools, guidelines and knowledge transfer **was substantial**, the expected results of the Component have been **substantially achieved**, but take up and application (through FAO and OIE) has been much less effective or active than expected, as it also had a dependence on the Gf-TADS (FAO/OIE) FMD Working Group.

**The expected results were largely achieved:** a **PCP toolbox** developed for PCP-FMD user community, including guiding documents developed for joint FAO/OIE application (Output 3.2.1); A system for **training PCP-FMD experts** well established and supported by training resources. (Output 3.2.2); Representation in **regional roadmap meetings**, FAO/OIE FMD working group and EuFMD executive meeting (3.2.3).

3. **Global FMD reference centre capacity to support the Global Strategy (Component 3.3)**. This Component received the major share of financial resources under **Pillar III**.

The overall objective has been **largely met** and detailed in this report and in the final WRLFMD report describing the activities and outputs under Letter of Agreement (LoA) 2013-2015. The objective of increased level and quality of surveillance information from the OIE/FAO Lab Network, with progress towards the targets required for regional roadmap vaccine priority setting in at least the three priority virus pools (Africa and West Eurasia), has been **substantially achieved**. Targets were not reached in Pool 5 (West Africa), and new risk regions (South Asia) have become more important in 2014-15 to prioritize, given the multiple incursions from this Pool (2) into the mid-

East and North Africa. The EC support to this Component, and thus to the OIE/FAO FMD Lab network, has played a crucial role in recognising these new threats. Increased efficiency of the network has resulted from changes introduced through this Component. Additionally, capacity building was realised in Regional Support Labs (RSLs) in Pool 4 (Embakasi FMD laboratory, Nairobi, Kenya) through provision of reagents, kits and equipment and training and trouble-shooting for immunodiagnostic and molecular assays.

The four expected results have been **largely achieved**:

**Largely achieved. Component 3.3.1:** Creation of a framework for coordination of laboratory support activities within the FAO/OIE global laboratory network. Two Annual OIE/FAO FMD laboratory network meetings were held, in 2013 and 2014 with support from Component 3.3. **Achieved. Component 3.3.2:** System in place for supporting diagnostic activities to be carried out by WRL. Under the LoA between FAO/EuFMD and the Pirbright Institute submission of samples to and exchange of sequences with WRLFMD has significantly increased. Overall targets for numbers of samples serotyped in the network (not by WRLFMD alone) have been achieved. Numbers of samples genotyped and number of field strains for which vaccine matching has been performed have exceeded the targets in the LoA. **Partly achieved. Component 3.3.3:** System in place for supporting the collection of samples from outbreaks in pools 4 and 5. For pools 4 and 5 targets have not been reached, though great effort and some progress was made. **Substantially achieved. Component 3.3.4:** Support for a global proficiency test scheme, to include 12 laboratories in the global network.

## Annex 2: Achievements of the Action - Reporting against the 13 Component Objectives and 40 Expected Results

		Expected Result	Achievement
1	1.1.1	System in place whereby MS use a <b>training credit system</b> to ensure training needs are addressed through a demand-driven training program	<i>Fully achieved</i>
2	1.1.2	Improved MS capacity to recognize, respond to and manage FMD through provision of <b>training programs</b> on clinical recognition, outbreak management and CP, and improved use of models/DST to support managers	<i>Fully achieved</i>
3	1.1.3	Infrastructure for <b>learning and knowledge transfer</b> in place, including e-learning, training resources and staff support.	<i>Fully achieved</i>
4	1.2.1	Output 1: A European modelling network composed of policy makers and model users from all interested MS with direct access to FMD models and model developers linked to other international modelling groups.	<i>Fully Achieved</i>
5	1.2.2	Resources for training on disease modelling and economic analysis in decision-making and simulation exercise design	<i>Significant achievement</i>
6	1.2.3	A network of managers in contingency planning and simulation exercise design	<i>Significant achievement</i>
7	1.3.1	Establishing a co-ordination framework for the activities required to maintain confidence in DF amongst the three countries	<i>Fully Achieved</i>
8	1.3.2	Established system for real-time data entry to support management of national surveillance activities aimed at maintaining DF confidence	<i>Fully Achieved</i>
9	1.3.3	Achieving two years of risk based surveillance results through activities implemented in each country for FMD (and other diseases as decided by Coordination Framework)	<i>Achieved for FMD, partially for other TADS</i>
10	1.4.1	Coordination framework for western Balkan countries for emergency planning on FMD, including an FMD laboratory sub-network	<i>Fully Achieved</i>
11	1.4.2	Improved contingency plans through participation of countries in two multi-country simulation exercises with pre and post exercise training and evaluation on specific themes or chapters of the contingency plans	<i>Largely achieved</i>
12	1.4.3	Integration of national FMD reference centres (laboratories) in the national CPs and improved regional diagnostic capacity for FMD challenge	<i>Significant achievement</i>
13	1.5.1	Produce Special Committee for Research reports, including Biorisk Management	<i>Fully Achieved. Two reports published, from Closed and Open Sessions (2013, 2014)</i>
14	1.5.2	Outputs of the Funded Research projects	<i>Significant achievement from seven commissioned projects</i>
15	1.6.1	Emergency Procurement–vaccines/diagnostics;	<i>Fully Achieved</i>
16	1.6.2	Emergency Missions	<i>Fully Achieved</i>
17	1.7.1	Participation of 20 non-EU EuFMD member states and neighbourhood countries in annual PTS;	<i>Significant achievement (37/40)</i>
18	1.7.2	Management and participation in annual EU reference	<i>Fully Achieved</i>
19	2.1.1	FMD Risk Based Strategic plan for FMD Control in Anatolia	<i>Achieved, but implemented by</i>

			<i>GDPC in ways that significantly differed</i>
20	2.1.2	RBSP developed and adopted in Georgia	<i>Fully Achieved, and implemented at national level</i>
21	2.1.3	Improved information system for regional risk managers which supports the West Eurasia Roadmap countries	<i>Significant achievement</i>
22	2.2.1	Risk Based Strategic Plans (RBSP) adopted and PCP progress achieved (Palestine and Egypt)	<i>Largely achieved for Egypt and Palestine</i>
23	2.2.2	System established to improve confidence in disease detection and/or freedom (as applicable) in neighbourhood of Israel (Palestine initially; Egypt and others according to national demand)	<i>Partially achieved</i>
24	2.2.3	Coordination framework in place to oversee and assist activity implementation nationally and regionally	<i>Partially achieved</i>
25	2.2.4	System in place to provide improved disease risk information to managers in Israel and Cyprus re: current threats from sub-Saharan East Africa	<i>Partially achieved</i>
26	2.3.1	Risk based control programme (PCP Pathway) adopted and implemented in Libya and Mauritania	<i>Partially achieved: Mauritania. Initial progress, unable to be continued: Libya</i>
27	2.3.2	Improved regional co-ordination (REMESA)	<i>Fully Achieved: this co-ordination has been critical</i>
28	2.3.3	Regular information flow on FMD circulation in Mauritania/Western Sahel countries available to risk managers	<i>Partially achieved</i>
29	2.3.4	System established in the REMESA high risk area for FMD spread (Libya, Algeria, Tunisia, Morocco) to provide continuous confidence in FMD freedom/early detection capability.	<i>Objective changed, with activities (and output) put on hold since epidemic FMD intervened</i>
30	2.3.5	Regional strategy for risk-based surveillance and vaccination programme and strategy to establish a local/regional vaccine-bank	<i>Largely achieved</i>
31	3.1.1	Technical Development of Monitoring system (with SCRPD involvement)	<i>Output dropped from development.</i>
32	3.1.2	Systematic collation and analysis (by Short Term Professionals)	<i>Significant effort to collate information control programmes.</i>
33	3.1.3	Assist FAO: Working Group to produce an annual Global FMD report.	<i>No output possible</i>
34	3.2.1	PCP toolbox developed for PCP-FMD user community, including guiding documents developed for joint FAO/OIE application;	<i>Fully achieved</i>
35	3.2.2	System for training PCP-FMD experts well established and supported by resources.	<i>Partially achieved</i>
36	3.2.3	Representation in regional roadmap meetings, FAO/OIE FMD working group and EuFMD executive meeting	<i>Fully achieved</i>
37	3.3.1	Creation of a framework for coordination of laboratory support activities within the FAO/OIE global laboratory network	<i>Largely achieved</i>
38	3.3.2	System in place for supporting diagnostic activities to be carried out by WRL	<i>Fully achieved</i>
39	3.3.3	System in place for supporting the collection of samples from outbreaks in pools 4 and 5	<i>Partially achieved</i>
40	3.3.4	Support for a global proficiency test scheme, to include 12 laboratories in the global network	<i>Significant achievement</i>

## Reporting by Component: achievement of objectives and expected results

### Pillar I: Improved Readiness for FMD crisis management by members

#### Component 1.1 Develop a cadre of European experts in FMD crisis management – recognition and response training

**Objective:** Member states capacity for FMD recognition and response training enhanced and FMD expertise network established

***The overall objective is Fully Achieved.***

A high uptake by MS of the training programme and its use within national training of staff (cascade training at national level), means that the outputs have been translated with high impact by the member states – a substantial, positive impact. The national trainers now have at their disposal and instant availability a range of resources for national training, as well as increased number of FMD experts to lead and guide national response, as well as training.

<b><i>Outputs (Expected results)</i></b>	<b><i>To what extent have each of these expected results been achieved?</i></b>
1. System in place whereby MS use <b>training credit system</b> to ensure training needs are addressed through a demand-driven training program;	<p><b>Achievement: fully achieved</b></p> <p>All Member States appointed a training focal point for liaison on training and all have taken part in the training credits system selecting training courses from a menu of options. 34 countries undertook training in the period 2013-15. The remaining four countries (Cyprus, Luxembourg, Iceland and France) experienced some logistical difficulties in participating in courses. However, three countries selected courses to be completed early in phase IV (2015-17). Four webinars were held at six-monthly intervals to update training focal points on training opportunities and a newsletter was also produced alongside the webinars to update on progress.</p> <p>A consultative telephone interview was held with a number of focal points to better understand the training needs of MS.</p>
2. Improved MS capacity to recognize, respond to and manage FMD through provision of <b>training programs</b> on clinical recognition, outbreak management and CP, and improved use of models/DST to support managers;	<p><b>Achievement: fully achieved</b></p> <p><b>Through the training credits system, based on MS course selection, the following training courses have been carried out:</b></p> <ul style="list-style-type: none"> <li>- Real Time Training (Kenya or Turkey): 90 participants;</li> <li>- Online FMD Emergency Preparation course: 520 participants enrolled on courses;</li> <li>- Intensive laboratory training course at the Pirbright Institute: 2 participants;</li> <li>- Workshop: “to vaccinate or not to vaccinate, using modelling to assess FMD control options”: 17 participants;</li> <li>- Bespoke Epidemiology training for Turkey: 21 participants.</li> </ul>
3. Infrastructure for <b>learning and knowledge transfer</b> in place, including e-learning, training resources and staff support.	<p><b>Achievement: fully achieved</b></p> <p>A Moodle™ e-learning platform has been established to host online courses and resources. Five online courses have been developed:</p> <ul style="list-style-type: none"> <li>- Real Time Training Induction Course</li> <li>- Refresher Training course (held after Real Time Training course)</li> <li>- FMD Emergency Preparation Course</li> <li>- Modelling Induction Course</li> <li>- Introduction to biostatistics</li> </ul> <p>The FMD Emergency Preparation Course has been translated and organized in six languages.</p>

	<p>The e-learning platform has supported activities across the EuFMD work programme including:</p> <ul style="list-style-type: none"> <li>Development of infrastructure for webinars which are now regularly used for training, networking and knowledge dissemination</li> <li>Development of contingency planning knowledge bank (see Component 1.2)</li> <li>EuFMD “Open Session Online”: recordings of all presentations at the EuFMD Open Session made available as a training resource.</li> <li>Over 1000 people in total had been registered with the e-learning site by September 2015, with many more accessing the platform as guest users.</li> <li>Training resources including factsheets, videos, image libraries and powerpoint presentations have been made available to MS for the purposes of national training.</li> <li>A full time training programme manager has been employed throughout 2013-15, with additional funding for this position supplied by the governments of Australia and New Zealand through the Nepal Real Time Training project.</li> <li>Operational staff have been trained as administrators of the EuFMD e-learning platform.</li> </ul>
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## **Component 1.2 Improved Contingency Planning**

**Objective:** Decision support tools (DST) for FMD risk managers available and used in contingency planning by an increased proportion of MS

***The overall objective is Significantly Achieved.***

Although specific activities were conducted only in a ten month period since the Component objective and outputs were agreed by the Executive and EC, there was substantial progress made with development and dissemination of resources to the new contingency planning network to assist them in their national functions. These include an Impact Calculator, a Knowledge Bank (online resources), a webinar series for contingency planners and a flourishing FMD modelling network that enables contingency planners and modellers to exchange ideas and progress reports.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
1. A European modelling network composed of policy makers and model users from all interested MS with direct access to FMD models and model developers linked to other international modelling groups;	<p><b>Achievement: fully achieved</b></p> <p>The modelling network has held regular webinars (seven) in Phase III and members met by online meetings and during the Open Session, to identify ways ahead. Members of the group have been successful in finding funding FMD activities but a joint proposal to EC for support to develop a pan-European animal disease spread model failed. The output though has been useful to contingency planners, and achieved its basic aim.</p> <p>Initial activities of the modelling network are listed hereunder:</p> <ul style="list-style-type: none"> <li>- Discussion forum established on EuFMD website;</li> <li>- Webinar series well taken up by member MS and connecting Europe, North America and Australasian groups active in FMD modelling;</li> <li>- Inventory list of existing models: inventory form on website;</li> <li>- Identification of a common project involving network members (ANIHWA proposal, on development of European FMD-spread model lead by network members Uno Wennergren and M. Tildesley).</li> </ul> <p><b>1.5</b> Pathway towards the use of models in contingency planning (similar to PCP) was proposed at Closed session of the Special Committee on Research and Program Development (SCRPD) in Frascati (Italy) (Nov 2013). <i>The above activity has not yet been initiated. It remains a recommendation from the EuFMD Special Committee.</i></p>
2. Resources for training on disease modelling and economic analysis in decision-making and simulation exercise design;	<p><b>Achievement: significant achievement</b></p> <p>New resources have been generated and made available to MS:</p> <ol style="list-style-type: none"> <li>1) an easy to use impacts calculator, developed as a tool under contract by the Royal Veterinary College (RVC) team of Professor Rushton, and demonstrated to MS at the General Session. This tool was developed to address the demand of contingency planners for a tool to enable them to show the potential benefits of contingency planning.</li> <li>2) A workshop on disease spread modelling was held in Frascati (Italy) from 29 September-3 October 2014. E-learning material was developed for participants to complete prior to attending the workshop, which allowed for the workshop to be a 'hands on' exercise applying the prototype Australian Animal Disease Spread model to inform contingency planning (this workshop is more fully described under Component 1.1).</li> <li>3) An e-learning course on epidemiological modeling has been developed and available in the list of e-learning training available in EuFMD.</li> </ol>

<p>3. A network of managers in contingency planning and simulation exercise design.</p>	<p><b>Achievement: significant achievement</b></p> <p>In a short time (&lt;12 months) , this Component had resulted in</p> <ol style="list-style-type: none"> <li>1) a survey of needs of managers in contingency planning in MS for: exercise design, evaluation of emergency plans and economics in decision-making.</li> <li>2) Establishment of a network of managers in contingency planning, across the 38 MS.</li> <li>3) Several webinars for the network, including on vaccination to live issues</li> <li>4) a repository of information (knowledge bank) related to simulation exercise development, to assist the network in MS to easily find resources to assist their work.</li> </ol> <p>This Contingency planning knowledge bank has been developed with the following elements:</p> <ul style="list-style-type: none"> <li>- Discussion forums and Webinar recordings</li> <li>- Guidelines for Preparing Contingency Plans</li> <li>- FMD Contingency Plans</li> <li>- Simulation Exercises reports</li> <li>- Operations resources</li> <li>- FVO audits on Contingency Planning</li> <li>- Other resources (preparedness, FMD impact assessments etc.).</li> </ul>
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### **Component 1.3 Programme for early warning surveillance in the Thrace region of Bulgaria/Greece/Turkey**

**OBJECTIVE:** The objective was to establish a system which provides **continuous confidence in disease freedom** and which improves the chances of detecting an outbreak at an early stage.

#### ***The overall objective is Largely Achieved.***

The objective of establishing a system that provides continuous confidence in disease freedom and improves the chances of detecting an outbreak at an early stage under the Phase III has been largely achieved, for FMD. The incursions of other TADS (SGP, LSD) have had some impact on the surveillance activities at some points of time, and the system enabled detection and correction when the confidence levels were reduced - but at all time the probability of FMD freedom, based on surveillance data during the Phase III was above 95%.

The Thrace region of Greece, Bulgaria and Turkey has historically been a high-risk area for the introduction of FMD into Europe, most recently in 2011 when wild boar spread FMD into Bulgaria, and also for Sheep and Goat Pox (SGP). By coordinating activities and taking a risk based approach to surveillance, greater confidence can be achieved in the FMD-free status of the region (Bulgaria and Greece are officially free of FMD and the Thrace region of Turkey is officially FMD free with vaccination) and the likelihood of early detection of an incursion is greatly increased. This Component included the establishment of a co-ordination framework for the surveillance activities (**Output 1.3.1**), and establishing a software system into use by the surveillance focal points in the 3 countries to ensure routine clinical and serological data was assembled close to real-time to enable confidence in disease freedom to be provided as an output to risk managers (**Output 1.3.2**). The undertaking of surveillance activities including sero-surveillance for FMD, in the 3 countries in compliance with quarterly targets for surveillance, comprised the evidence for freedom, **Output 1.3.3**.

Under the context of the programme to improve clinical detection of exotic diseases, **a training on Lumpy Skin Disease (LSD) was given in Turkey**, whereby focal points of the 3 countries saw clinical cases and used this to develop communication materials for early reporting by livestock owners and veterinarians. This proved of high value for reporting of LSD in Turkish Thrace and Greece in 2015.

<b><i>Outputs (Expected results)</i></b>	<b><i>To what extent have each of these expected results been achieved?</i></b>
1. Establishing a co-ordination framework for the activities required to maintain confidence in DF amongst the three countries.	<p><b>Achievement: Fully achieved</b></p> <p>During the Phase III in total 3 tripartite meetings have been held with the representatives of all three countries (Bulgaria, Greece and Turkey) and OIE and European Commission.</p> <p>Regular contacts with National Focal Points in Thrace region of Bulgaria, Greece and Turkey has been maintained. During the Phase III in total 5 management meetings for Thrace have been held. Issues regarding the implementation of the program have been discussed (on-going and future procurements, raising awareness, consultant contracts, cycle reports, annual report, mapping and budget).</p>
2. Established system for real-time data entry to support management of national surveillance	<p><b>Achievement: substantial</b></p> <p>A database has been developed and implemented with a separate section for each country – Bulgaria, Greece and Turkey. It is hosted by Microsoft Share Point and allows the recording of clinical and serological surveillance with their</p>

<p>activities aimed at maintaining DF confidence.</p>	<p>results. The possibility to have constant access to the data guarantees the chance to monitor the activity, highlight the presence of weaknesses, easily report the activity performed and regularly guarantee the disease freedom confidence. All the activities carried out from July 2013 have been registered in the database (Turkey has started the recording from January 2014), since all the data obtained in the period July-Dec 2013 have been provided on excel sheet. The reports of the activities and their results are regularly downloaded from the database, summarized in three-monthly reports and analysed with the Cameron model to demonstrate the disease freedom confidence. A clear system for reporting the activity performed has been implemented (monthly and cycle reports) in order to validate the information registered in the database. A short course on GIS and mapping systems has been held for the focal points.</p> <p>During the Phase III within 2013-2015 for the implementation of the programme for early warning surveillance in the Thrace region of Bulgaria, Turkey and Greece, five veterinary consultants working for EuFMD in the field in Bulgaria have been taken 10176 samples for serological investigation for FMD and have performed clinical checks on 47350 animals. In Greece one field veterinary consultant and one laboratory consultant have taken and tested 10010 samples for serological investigation and on 32423 animals in the holdings and on 3840 animals in abattoir clinical investigation have been performed. In Turkey one field veterinary consultant and one laboratory consultant have taken and tested 9622 samples for serological investigation and in total on 100155 animals clinical investigation have been performed.</p> <p>In total during the Phase III in Thrace seven field consultants and two laboratory consultants 29808 samples have been taken and tested for FMD and 179928 animals have been clinically investigated in the holdings and 3840 have been clinically investigated in an abattoir.</p>
<p>3. Achieving two years of risk based surveillance results through activities implemented in each country for FMD (and other diseases as decided by Coordination Framework).</p>	<p><b>Achievement: substantial</b></p> <p>The FMD surveillance has been properly implemented in each country according to the designed programme in the high-risk area identified (Bulgarian and Greek borders with Turkey and Istanbul province). The results are continuously entered into the web-based database, and reported back to all 3 risk managers on a quarterly basis, against the defined targets. All three countries achieved more than 90% of the predefined surveillance target. The probability of FMD freedom, based on surveillance data of one year is above 95%.</p> <p>The diagnostic reagents and consumables for FMD, PPR and SGP laboratory tests (ELISA, PCR, RT-PCR) provided to the countries in order to improve capacity to respond to exotic disease incursions in to the common border region.</p> <p>Following proposals from BG and GR, and agreement at the Executive, a programme was been established for PPR and SGP surveillance in the area based on clinical inspections and test of suspicions. FAO-EMPRES PPR/SGP experts have been consulted on PPR and SGP surveillance design. Posters and leaflets for increasing FMD/PPR/SGP awareness have been finalized and sent out to the National Focal Points to be printed and used within Thrace region in order to increase the readiness and awareness.</p>

## Overall Indicators (Action logframe):

1.3	Component	Indicator	Result
	Thrace region (Greece/Bulgaria/Turkey): system established to provide continuous confidence in FMD freedom.	Monthly Report System operational by 2014, evidence of national response to findings	<b>Achieved</b> Quarterly reporting back on confidence in freedom, with actions taken thereafter at national level. Co-ordination mechanism in place for change in surveillance in relation to risk, which was used to improve early warning for LSD.

### Expected Result achievement (Workplan)

	Description	Indicators	Expected results	Achievement
<b>Outputs</b>	System in place for risk-based surveillance and analysis of data to provide an estimate of confidence in disease freedom and improve the capability for early detection of incursions 3 SubComponent Outputs 1.Coordination Framework 2. System for data entry 3.Risk based surveillance achieved	Disease managers using RBS and confidence in freedom estimates as tools	Outputs in use in all three countries	<b>Overall Objective Achieved.</b> Three outputs achieved.
<b>Activities</b>				
<b>1. Coordination framework for activities required to maintain confidence in DF amongst the three countries:</b>	1.1 Tri-country biannual coordination and planning meetings	Meetings held	4	<b>Achieved. 4 Tripartite meetings have been held:</b> 1. 22/11/2013 in Istanbul; 2. 02/04/2014 in Brussels; 3. 13-14/10/2014 in Sofia; 4. 30/08-01/09/2015 in Alexandroupolis
	1.2 Small coord. and activity implementation meetings	Meetings held	6	<b>Achieved.</b> Coordination and activity implementation meeting have been held on regularly basis and in 2014 three meetings have been held - in February, August and December 2014 and during 2015 one meeting have been held in February and two meetings in June.
<b>2. System established for real-time data entry for mgt of national activities to maintain DF confidence</b>	2.1 Maintenance, improvement and trouble-shooting of a web-based system for real-time reporting and analysis of RBS data	Online system in use, outputs available for managers	All three countries reporting data in real time, managers using outputs	<b>Substantially Achieved.</b> All countries reported data on the programme for early warning surveillance in the Thrace region of Bulgaria/Greece/Turkey on the monthly basis and real time adding information to the SharePoint Database. A more user friendly interface was a demand, not fulfilled in Phase III.
	2.2 Training G/B/T in data management and GIS systems	Training sessions provided	1	<b>Achieved.</b> Cooperation of NCs & focal points; training held on occasion of regular program meeting.

<b>3. Risk based surveillance implemented in each country for FMD (and other diseases as decided by Coord Framework)</b>	3.1 RBS activities carried out in Thrace region	Data collected by NCs	Monthly reports (building to real-time reporting via web)	<b>Achieved.</b> All countries reported data on the programme for early warning surveillance in the Thrace region of Bulgaria/Greece/Turkey on the monthly basis using paper forms for monthly and cycle reports and in real time adding information to the SharePoint Database.
	3.2 Procurement (lab supplies, consumables for surveillance)	Labs provided with reagents sufficient for RBS samples	Kits provided, each lab able to test RBS samples	<b>Achieved.</b> Every country have been supplied with FMD ELISA and PCR kits regularly in the framework of surveillance programme in 2013 and 2014, also PPR and SGP kits have been provided to be able to perform testing activities.

#### **Component 1.4 Improved management capacity for FMD in the Balkan region**

**OBJECTIVE:** To support the development of FMD emergency management capacity in the Balkan region.

**Most outputs have been achieved, however, the overall objective is only partially achieved.**

Supporting of the development of FMD emergency management capacity was successfully implemented under Phase III in the Balkan region, but further support under Phase IV is needed to continuously keep the development under appropriate level.

This Component covered a programme of support to MS in the Balkan region to improve the quality of contingency planning, to improve awareness of FMD risks and the economic consequences of emergencies, through a series of regional workshops and desk top simulation exercises leading to two, simultaneous multi-country simulation exercises that tested capacity to manage the national and local responses, in 3 exercise-countries (Bulgaria, Serbia, FYROM) but which involved all participating countries taking roles .

Participating veterinary services (10) of Bulgaria, Greece, Serbia, Croatia, Montenegro, Bosnia and Herzegovina, Albania, FYROM, Kosovo and Moldova were involved in all regional workshops and as observers to the exercises.

<b><i>Outputs (Expected results)</i></b>	<b><i>To what extent have each of these expected results been achieved?</i></b>
1. Coordination framework for western Balkan countries for emergency planning on FMD, including an FMD laboratory sub-network;	<b>Achieved.</b> Initial planning meetings were held to define the workplan for the 2 years, followed by establishing the network of focal points. This network was important to decide on timing, location of workshops, their content and focus, and on the simulation exercises. When severe flooding affected plans for the first simulation exercise, the decision to develop alternatives (online training) was taken. Regular contact with National Focal Points and laboratory sub-network contact points has been maintained in order to identify issues and to nominate suitable participants for events – workshops and simulation exercises, and their feedback.
2. Improved contingency plans through participation of countries in two multi-country simulation exercises with pre and post exercise training and evaluation on specific themes or chapters of the contingency plans;	<b>Largely achieved.</b> An outline plan to achieve the objective of improving FMD emergency preparedness in the Balkans was discussed with Serbia and Bulgaria at the 85thExCom meeting in Chania, and endorsed at the 40 <sup>th</sup> General Session in Rome. An initial steering group was established in July 2013 and national focal points for each veterinary authority were identified, as well as an initial consultation with laboratory focal points. The first planning and implementation meeting of the project was held in Belgrade on 24/25 September 2013. During the Phase III for Balkans in total eight workshops have been held. In the period 10-12 December 2013, in Skopje –FYR of Macedonia was held the first workshop from a series of 8 proposed at the Belgrade meeting. The workshops targeted epidemiologists, field veterinarians, officers responsible for contingency planning, outbreak managers. The main topics have been analysed such an outbreak management and field investigation, procedures for post-FMD confirmation (tracing) and for after the outbreak has been resolved and the country wishes to apply to regain FMD free status, animal disease modelling, pre-simulation exercises workshops and biosecurity and movement restrictions, human and physical resource capacity planning, decision making on the use of vaccination, international co-operation, the communication and media challenge, etc. The first multi-country simulation exercise was conducted on the 27 <sup>th</sup> – 29 <sup>th</sup> of January 2015. Three countries participated: Bulgaria, F.Y.R. of Macedonia and

	Serbia. The exercise was designed and executed with the help of FVST, DEMA, and one national contact point per participating country and by EuFMD. In total more than 60 people participated at the exercise. Non-participating Balkan countries could nominate one observer per country. 5 observers attended (Bosnia and Herzegovina, Croatia, Greece, Kosovo and Moldova) the event.
3. Integration of national FMD reference centres (laboratories) in the national CPs and improved regional diagnostic capacity for FMD challenge.	<p><b>Partly achieved.</b></p> <p>The mechanism of a regional FMD laboratory simulation exercise was held, timed together with the national desk top exercises. This was preceded by FMD laboratory training was held on 17<sup>th</sup> – 21<sup>st</sup> of November 2014 in Brescia, Italy. The main goal of this training was to improve the regional diagnostic capacity of the Balkans in case of an FMD challenge. The focus of this training was to give a hands-on experience and professional guidance on a range of diagnostic methods for FMD. This training also gives support to participate in the 2014 WRL Proficiency Test Schemes. Laboratories were sent diagnostic kits (on which they had been trained), plus test samples, for the exercise.</p> <p>The Biosafety Officer Training was held on 20<sup>th</sup> – 22<sup>nd</sup> of January 2015. The main goal of this training was to ensure that national laboratories, which do not have Biorisk management capability of handling live virus, were able to manage the transition to a reference laboratory for a crisis situation, in which live virus samples would be received for testing. This training was to give theoretical and practical training on how to rearrange a laboratory facility and staffing into an FMD contingency laboratory in case of an FMD emergency.</p>

What was not achieved were clear achievement of agreements on how to proceed to confirm suspicions through use of national or non-national (reference) facilities. The LSD crisis of 2015 has though show how FYROM has used the Bulgarian RL to confirm LSD, a first example in this region, and one that may show the value of pre-agreed procedures for FMD or other diseases.

#### Overall Indicators (Action logframe):

1.4	Component	Indicator	Result
	Improved emergency management capacity for FMD in the Balkan region	Indicators for progress in development and testing of contingency plans	<p><b>Achieved</b></p> <p>Plans tested TWICE by simulation exercise in three countries (Bulgaria, FYROM, Serbia)</p> <p>Self-assessment of CPs in the other seven countries (Greece, Serbia, Croatia, Montenegro, Bosnia and Herzegovina, Albania and Kosovo).</p> <p>Laboratory simulation exercise for confirmation of infection conducted in 10 countries.</p>

#### Expected Result achievement (Workplan)



	Description	Indicators	Monitoring % evaluation	Expected results	Achievement
<b>Output</b>	Improved emergency management capacity for FMD in Balkan region Including sub-Component outputs: 1.Coordination 2.Improved CPs 3.Improved diagnostic capacity	Report of SimEx	ExCom report; GS41 report	Testing of contingency plans; capacity development indicators	<b>Significantly Achieved</b> – testing of CPs in three countries, by simexx covering different parts of outbreak mgt Lab.exercise achieved – 10 countries
<b>Activities</b>					
<b>1. Coord. framework incl. lab-subnetwork</b>	1.1 Identification of network focal points	Focal points identified	ExCom report	One focal point per country	<b>Achieved</b>
	1.2 Establishment of steering group for SimEx, SG planning meeting held	Steering group members nominated, minutes of meetings available, planning meeting held	ExCom report, meeting report	Steering group established, TC meetings held, planning meeting held	<b>Achieved</b> this group steered the series of WS and simex
	1.3 Identification of lab sub-network focal points	Lab focal points identified	ExCom report	One focal point per FMD lab	<b>Achieved</b> – every Balkan country has appointed one focal point per every national FMD laboratory
	1.4 Regular contact (via email/TC/webinar) with focal points to maintain communication and identify issues, e.g. PTS participation	Minutes of meetings held; issues identified	ExCom report	Regular meetings via TC/webinar, at least every three months; minutes available; issues identified in ExCom report.	<b>Achieved.</b> In addition through a regional e-learning course on FMD, around 100 were in regular contact
<b>2. Improved CPs through workshops &amp; SimEx</b>					
	2.1 Workshops held to address specific themes or chapters of CP (demand driven subject choice: see annex 1)	Workshops held	ExCom report, GS41 report, WS reports	Eight workshops	<b>Achieved.</b> One workshop has been held in December 2013, five in 2014 (including two on laboratory activities) and two in 2015
	2.2 Cross-border simulation exercises held	SimEx held	ExCom report, SimEx reports, GS41 report	Two, both cross-border multi-country	<b>Achieved</b> in Feb and June 2015
	2.3 In-country expert support missions (demand-driven)	Missions held	ExCom report, mission reports	5	
	2.4 Translation of EuFMD training materials into Serbo-Croat	Translated material available	ExCom report, GS41 report	E-learning emergency prep course available in Serbo-Croat	<b>Achieved</b> - Regional e-learning course on FMD, around 100 were in regular contact, materials

					in Croatian and Serbian available to all region
<b>3. Integration of NRLs into CPs&amp; improved reg.diag.capacity</b>					
3.1 Procurement of lab reagents/kits to support a minimum diagnostic capacity; support to overcome non-participation in PTS	Kits delivered; each lab sufficiently equipped to participate in PTS and diagnose FMD	ExCom report, PTS report, GS41 report	PTS participation		<b>Achieved.</b> Valuable exercise provided what is possible, and problems to solve
3.2 Laboratory training within Balkans through inter-lab partnerships	Training sessions delivered	ExCom report, training reports, GS41 report	Two sessions		<b>Achieved.</b> Training for 10 countries in biosecurity procedures to designate crisis FMD diagnostic facilities
3.3 Within-Balkan regional PTS organized	PTS conducted	ExCom report, PTS report, GS41 report	One PTS		<b>Achieved</b>

### **1.5 Research activities relevant to resolve policy issues.**

**Objective:** delivering new knowledge or tools relevant to resolving the priority technical issues faced by member states, including those in the European neighbourhood not free of FMD.

**The objective can be considered to have been largely achieved.**

Seven projects commissioned, successful completed, reported, there was evidence of tangible use of new knowledge and tools, and work to further develop promising tools have been taken further by partners for 3 of these.

The priorities for 2013-15 were endorsed by the Executive Committee, and three calls for proposals were made, with a two –stage review process involved in selection and awarding of research funding, with the final decision by the Executive Committee.

Funds were dispersed by the EuFMD through Letters of Agreement (LoA) which are contracts between the FAO of the UN with not-for-profit institutions. As an open call and competitive processes were followed, best value for money was a criterion in awarding contracts. The maximum award was notified in advance.

The Reporting schedule of contractees was set at the time of the LoAs being agreed and all contracts were all completed by September 2015. Oral reports on their progress were provided at the 2014 Open Session of the Standing Technical Committee for those contracts awarded before June of that year.

#### **Outputs achieved:**

##### **1. Produce Special Committee for Research reports, including Biorisk Management**

Two reports published, from Closed and Open Sessions (2013, 2014).

##### **2. Outputs of the Funded Research projects.**

Good achievement from seven commissioned projects.

Component	Indicator	Result
1.5 Research outputs relevant to resolve policy issues.	Number of projects completed and reported.	<b>Achieved</b> , good impact. 7 projects commissioned, successful completed, reported. Evidence of tangible use of new knowledge and tools has been received. At least 3 of these have been taken further by partners

## List of Commissioned Projects

Research Project Title	Leader/ contractor	Amount	Comp	Reported
Realising the potential of simple isothermal molecular tools for field diagnosis of Foot-and-Mouth Disease. Pillar 1, Comp. 1.5	The Pirbright Institute	€ 50,539.00	1.5	Yes. Published 2015 (Lead author: Howson. EC/ via EuFMD credited as co-funder.
State of the FMD Research in the World, 2014	Pirbright	19,000€	1.5	Yes, 2014 Open Session, and Online. The authoritative Global Report on FMD research and the gaps. Published also in Journal TBED 2016 in 7 parts.
Modelling of FMD control strategies, including vaccination	Friedrich Loeffler Institute	€ 49.977,00	1.5	Yes, to EuFMD member states (General Session 2015)
In vitro and in vivo experiments ( domestic pigs) to optimize and validate a non -invasive sampling method of wild boar using maize baits ( maize cobs with six swabs incorporated in each) and pSWABs	Friedrich Loeffler Institute	€ 35,000.00	1.5	Yes, and training in application provided to Balkan countries (2015).
Improving quality assurance along the FMD vaccine production and supply chain	The Pirbright Institute	€ 32 256.12	1.5	Successful proof of concept. Methods ready to apply to vaccines in the field and in production labs.
Validating the Lumpy skin disease (LSD) vaccine control challenge tests	CODA - CERVA	€ 40,000.00	1.5	Special commission from EC (DG-SANTE). Successful completion, important results for European intelligence for vaccine election for situation in 2015-16
Prototype Model for the rapid Assessment of FMD Impacts	Royal Veterinary College	€ 25,436.00	1.2	Listed here but funded under 1.2. Useful prototype already trialled with several member states.

**Component 1.6: Crisis Management Support provided to member states through emergency technical response to FMD outbreaks (or other exotic diseases) in the member state or the European neighbourhood.**

**Objective:** Maintenance of a capacity to provide advice, technical support and assistance to EUFMD MS and countries in the European neighbourhood in the event of an FMD outbreak, or other exotic diseases which have features of clinical nature or pattern of spread that might give early warning of an FMD incursion or mask its spread.

The **objective was met**, although at the end of the two year period the funds would not have been sufficient for a large scale purchase of FMD vaccine in an emergency.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
Procurement vaccines/diagnostics;	<p>Crisis response was activated on two major occasions, which</p> <p><b>FMD incursions into Tunisia, Algeria and Morocco, in 2014-15.</b></p> <p>Under this Component, response included an expert mission (Tunisia, with FAO/OIE), a regional emergency online training course (75 participants from Tunisia, Morocco and Algeria, ahead of outbreaks in the latter two), two desk top simulation exercises (Algeria, Morocco, ahead of the first outbreaks), and delivery of diagnostic kits and facilitation of the EC donation of vaccines to Tunisia and Algeria.</p> <p>These rapid deliveries were well appreciated, and although they did not by themselves control FMD, the trainings and simulation in Algeria and Morocco before the incursions assisted internal planning and confidence, as well as better awareness of mechanisms of spread that need attention, and were likely to have contributed to relative success of control in Algeria and Morocco. For Algeria, international reporting of the first case actually occurred through the online course to the other countries, so transparency and sharing were enhanced.</p> <p><b>Lumpy Skin Disease incursions into Cyprus in 2015.</b> Following receipt of instructions from DG-SANTE, repairs to equipment, re-establishing diagnostic tests into use, and supplies for LSD confirmation were delivered, with training provided in the Turkish occupied zone of the country, and in Belgium (CODA-CERVA-VAR). As part of this, emergency support to improve the LSD vaccine challenge test was provided to CODA-CERVA-VAR, which proved important for the subsequent challenge studies to identify potency of vaccines which had been identified as potential options for use in the EU and neighbourhood.</p>
Emergency Missions	

### **Component 1.7 Proficiency Test Services (PTS)**

**Objective:** To provide services of the Proficiency Test Services to the NON-EU members of the EuFMD to enable them to participate to the same extent as the NRLs of the Eu28 under the scheme implemented through the EURL at The Pirbright Institute.

This objective was **largely achieved**.

<b><i>Outputs (Expected results)</i></b>	<b>To what extent have each of these expected results been achieved?</b>
Increased participation and better national alignment of the NRLs in the European neighbourhood to the EuFMD and EU standard for FMD diagnostic NRLS performance (as defined at GS39), with specific results of:  Participation of 20 non-EU EuFMD member states and neighbourhood countries in annual PTS;	<b>Largely Achieved</b>  In 2013, 7 non-EU, but EuFMD member states participated in the PTS, with 10 additional neighbourhood countries from south-east Europe and North Africa, a total of 17 out of the invited 20. In 2014, greater participation was achieved, with all western Balkans non-EU countries plus Moldova, reaching the target of 20. Each PTS was followed by reports to the participating laboratories. In 2014, while 62% of labs from countries which are not in the EU but are EuFMD members had results that were "fit for purpose", only 6% of results for European neighbourhood countries were in this category, 94% required remedial attention. This is an important indicator of the value of the PTS. Continuation of the PTS under Phase IV is planned and this should enable the participants to identify if they have corrected issues affecting performance in 2014.
Management and participation in annual EU reference	<b>Achieved</b>  Management of the PTS at European level  This was achieved by participation of the EuFMD expert in the annual EU-RL meetings (two in the period) and in the advisory group for the PTS, to ensure that there is sufficient attention in the PTS to the major risks in the region such as novel strains that require detection by NRLs in the European neighbourhood.

### **Overall Indicators (Action logframe):**

<b>Component</b>	<b>Indicator</b>	<b>Result</b>
1.7 Support for alignment of the performance of the National FMD Reference Laboratories (NRLs) of EuFMD members and neighbourhood countries	NRL participation; NRL performance compared to EU benchmark	<b>Largely achieved</b>  17 of 20 participated (2013) raising to 20/20 in 2014. EuFMD NRLs comparable performance, but neighbourhood NRLs proficiency less than satisfactory.

## **Pillar II: Reduce risk to Member States from the European neighbourhood**

### **Component 2.1 South East Europe: promote better management in Turkey and neighbours**

**Objective:** The objective is to reduce the impact of FMD in Turkey and Georgia (EuFMD member states) and to reduce the risk posed by FMD in the region to all EuFMD Member states.

#### **This Component objective has largely achieved**

The FMD situation in Anatolia improved during the Phase III project, and infection was not reported in Thrace or cases in Georgia. The risk to other EuFMD MS in Europe remained from the FMD situation in Iran and in the Syria/Iraq zones of insecurity.

The result under Phase III was expected to be national progress in the Progressive Control Pathway (PCP), verified by acceptance by GF-TADS through the agreed process and development of regional (West Eurasia) expertise to manage FMD risks. Significant progress had been made in Turkey (Anatolia) and Georgia. The emphasis for the first being in the national capacity to monitor implementation and impact of their National Risk Based Strategic Plan (RBSP) and in the latter to develop the Risk Based Strategic Plan (RBSP) to international standards. In Turkey, significant changes to control measures were adopted by GDFA and it was significant that no outbreaks of FMD were reported in August 2015 before the incursion of a new Serotype A/G-VII in September.

There remains an urgent need for the Epidemiology and Monitoring Unit (EMU) to fulfil the objective of providing effective monitoring of the impact and implementation of the Turkish FMD control strategy. The Unit does not yet have full status and its staff members cannot prioritize work on EMU activities, but have to comply with their current position and very limited time for additional duties. The establishment of a monitoring system has not progressed as envisioned, it has not been straightforward and it taking more time and input than foreseen. This has caused other activities to be postponed.

For Georgia, the RBSP developed with EuFMD support has been accepted by GF-TADS at the Almaty Roadmap in April 2015. Following that meeting, EuFMD had assisted Armenia and Azerbaijan, on request, to complete their RBSPs to meet the deadline for submission (for PCP Stage 2).

Regarding regional expertise, under Phase III, the use of webinars and online training in Russian language had replaced face to face meetings for expertise development, with a high amount of interest developed, particularly for online training in Russian. The Almaty Roadmap meeting had recommended further development and support in this way. One “real-Time FMD Training” course in Russian had occurred, in Turkey. A Memorandum of Understanding (MOU) had been signed with the All Russian Institute for Animal Health (FGI-ARRIAH) at Vladimir and they had assisted as training course tutors. The West Eurasia Database (developed in 2008 for the TransCaucasus buffer zone management and extended with participation of Turkey) was being updated on a monthly basis, although Turkey had ceased in 2014 to provide monthly data. The system will be further updated to provide more feedback to risk managers, as a service under Phase IV. This also relates to the needs identified at the Ankara Workshop ((Russian Federation, Georgia, Armenia, Azerbaijan Turkey) for an information platform to improve confidence and communication between these countries with complex, common border issues. The overall lesson is that it takes time to develop risk based national control plans and longer to develop the national capacity (“management mind-set”) to monitor implementation and impact.

Leaders within the region, with good examples of success, have lessons to share and the work plans should facilitate this by modern means, to really build this new level of management competence.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
<p>Risk based control programmes (PCP Pathway) adopted and implemented in <b>Turkey</b></p>	<p><b>Achieved</b></p> <p>Technical support was provided to the development and implementation of the national risk-based strategic control plans (RBSP) for FMD control. Activities foreseen in the workplan focussed particularly on the establishment of an epidemiology and monitoring unit (EMU) for on-going monitoring of the implementation and impact of the risk based control strategy. It also was foreseen that the Unit would identify and implement targeted studies to identify and evaluate the most effective control options. The implementation and analysis of these studies was to have been an important element of training/capacity building.</p> <p><b>FMD Risk Based Strategic plan for FMD Control in Anatolia</b></p> <p><b>Achieved, but implemented by GDPC in ways that significantly differed</b> from their plan submitted to the Roadmap Meeting for acceptance as Stage 2. A plan entitled “Turkey – Risk-Based Strategic Plan for Control of Foot-and-Mouth Disease” has been prepared in English by GDPC and the SAP Institute (Version 1.0 is dated 20-Aug-13), with project (EC/EuFMD) support. It was accepted by the Regional Roadmap advisory group (under GF-TADS) in 2014 and Turkey Anatolia remained on stage 2 of PCP-FMD.</p> <p>A second strategic plan in Turkish has been drawn up by GDPC. This plan was the one being implemented during Phase III. In Phase IV it is expected that Turkey will return back to the RBSP format developed together with EUFMD, after update and improvement of the plan.</p> <p>Assistance to the Epidemiology and Monitoring Unit (EMU) to develop the routine system of monitoring and reporting on implementation of control measures for FMD was provided by Nick Honhold during his 8 week mission (September-December 2014). A system to monitor RBSP implementation included a monthly report to describe the impact and implementation of the plan, and a quarterly assessment.</p> <p><b>Establishment and implementation of epidemiology and monitoring unit (EMU)</b></p> <p>-Uptake of support: <b>EMU not fully implemented by GOVS.</b> The establishment of the unit has been supported through expert missions to outline roles and responsibilities, tasks required to monitor the RBSP and to define training needs. Missions were conducted in October (M. McLaws and A. Bouma), November 2013 (M. McLaws) and September –December 2014 (N. Honhold) – mission reports are available. A set of draft ToRs for the unit have been produced (have not been explicitly agreed to date with GDPC).</p> <p>-The head of the Department of Animal Health and Quarantine, the Under-secretary and the special adviser to the Deputy Minister have agreed on the requirement for establishment of a central epidemiology and monitoring unit and indeed regional units located in each regional research institute (8 institutes). Despite the agreements achieved, the unit has not been given a formal status and 3 persons assigned to it are not full-time and could not prioritize work on M&amp;E activities. The nominated Unit members also had very</p>



	<p>limited prior training in epidemiology. Assistance with implementation of epidemiology and monitoring unit has been provided by several short term training missions (Nov 2013, Jan 2014, Feb 2014, April 2014 ) , and a longer mission in GDFC by Nick Honhold (September-December 2014) which included the following:</p> <ol style="list-style-type: none"> <li>I. Preliminary training in descriptive epidemiology and the use of software packages (Excel and Epi-info) to analyse data and prepare reports for 3 unit members (7 days).</li> <li>II. Assistance in development of a system to monitor the RBSP, including a monthly report that describes the impact and implementation of the plan, and a quarterly assessment.</li> <li>III. Work with the GDFC focal point to obtain the data required for the above from Turkvet and other sources, and to develop a sustainable system to regularly update the data</li> <li>IV. Work with Unit members to develop Standard Operating Procedures to produce and disseminate the monthly report</li> </ol> <p>-To support further training of the Unit members and the epidemiology units in the 8 regional institutes additional 4 weeks ToT training was requested by Turkey from EUFMD, according to Nick Honhold's recommendations. The first week of training "Epidemiological Statistics" was carried out in October 2015 after a preliminary 1 week training organised by GDFC.</p> <p><b>Targeted research studies</b></p> <p>-The following technical input had been provided: to the analysis of serosurvey results from 2012 (report available from C. Bartels) and a input to the serosurvey plan for 2014 (during the Feb 14 mission, C. Bartels). A serosurvey design for post-vaccination monitoring has been proposed by C. Bartels (Feb 14 mission).</p> <p>-Collaboration and assisting with the coordination of a research project by Warwick University involving the development of a disease spread model for FMD in Turkey. A team from Warwick University travelled to Turkey with M. McLaws in Jan 14 to present progress-to-date, address data issues and view animal husbandry systems first hand. In the course of the development of the Disease spread model for Turkey, Warwick University did a network analysis of cattle movement data in Turkey.</p>
<p>Risk based control programmes (PCP Pathway) adopted and implemented in <b>Georgia and neighbours (Azerbaijan, Armenia)</b></p>	<p><b>Fully Achieved</b></p> <p>In <b>Georgia</b>: planned activities were technical support to the development and implementation of risk-based strategic control plans for FMD control. Key indicators were on the impact and implementation of the RBSP Targeted studies were also foreseen to fill key gaps in knowledge concerning FMD control and RBSP implementation.</p> <p><b>FMD Risk Based Strategic plan</b></p> <p><b>Achieved, and implemented at national level.</b></p> <p>-A mission was undertaken in August 2013 and a follow-up in February 2014. The first draft was presented at the W. Eurasia Roadmap meeting in Astana in April 2014. Further mission to work on the RBSP has been carried in August 2015 (Potsch). Development of the RBSP has demanded more resources (time and missions) than originally envisioned. RBSP was accepted by the Regional Roadmap advisory group (under GF-TADS) in April 2015 and Georgia passed to PCP-FMD Stage 2.</p> <p>-In response to the assistance requests from Azerbaijan and Armenia EuFMD provided technical support to Azerbaijan and Armenia to complete their RBSPs.</p>

	<p>The Trans Caucasus workshop on RBSP development in Tbilisi was carried out in July 2015, in Tbilisi, Georgia. The main Components of the RBSPs of Azerbaijan and Armenia were drafted during the workshop. The Georgian RBSP has been updated, including new elements included after discussions and experience sharing between countries.</p> <p><b>Establishment and implementation of monitoring of RBSP</b>  <b>Largely achieved.</b> Targets and indicators were defined for key control activities. The establishment of a monitoring system was discussed following the development of the RBSP and during the workshop on Risk Based Strategic plan development in July 2015.          -EuFMD assisted with the design and plan for data collection and analysis of the 2014 autumn serosurvey (mission Potzsch Aug 2014). The gaps of the 2014 survey were analysed and improvements for the 2015 survey agreed (July 2015).</p> <p><b>Targeted research studies</b>          Limited to one study on the response to vaccination with emergency vaccine that was about to expire. Samples were also taken from calves in the same premises that had been vaccinated with ARRIAH vaccine.</p>
<p>Improved information system for regional risk managers which supports the West Eurasia Roadmap countries.</p>	<p><b>Significantly Achieved</b>          In the <b>W. Eurasia Region</b>: Planned activities were support to OIE/FAO in their regional coordination, through cooperation with GF-TADs programs and Roadmaps, as well as encouraging the use of a regional FMD database (part of EMPRES-i). Technical support to analysis of FMD risk in the area, including the identification of circulating strains and risk factors including spatial and temporal dynamics, facilitated through further development of WELNet and other existing FAO or joint FAO/OIE surveillance networks.</p> <p><b>Support information gathering &amp; sample submission from neighbourhood risk regions</b>  <b>Partially achieved.</b>  <b>Information and early warning issues:</b></p> <ul style="list-style-type: none"> <li>- Data on vaccination from Armenia, Azerbaijan and Georgia were sent to the West Eurasia database on a monthly basis to EuFMD. Turkey stopped reporting on vaccination and outbreaks in 2014.</li> <li>- The decisions taken by GF-TADS partners to reduce the emphasis on Iran, and withdrawal of specific support activities, had a negative effect and the monthly report of Iran ceased, and in Phase III, also the month report of Turkey as direct consequence of Iran ceasing to report regularly. Information gathering activities were rendered far more difficult. Information remained forthcoming from Pakistan, and this provided a helpful picture. Regular contact with Iran, Turkey was maintained, with use of virtual meetings (webinars). In response to the risks posed, a regional workshop was conducted in January 2015 in Ankara with the objective to discuss current national and regional FMD surveillance, control and risks , identify needs and mechanisms for regional cooperation on FMD surveillance and control and discuss a proposal for a 5 year project for TransCaucasus countries (Georgia, Azerbaijan, Armenia with desirable involvement of Turkey and Iran, prepared by FGBI-ARRIAH (OIE/FAO reference centre for the control of FMD in West Eurasia), Russian Federation. The proposed way forward for further</li> </ul>

	<p>development of the project proposal was outlined in the meeting protocol, which was signed by representatives from Georgia, Armenia, Azerbaijan and Russian Federation. The proposal of Russian Federation during TCC workshop in FMD surveillance and control required donors support.</p> <p><b>Co-ordination: The annual W. Eurasia Roadmap meetings were held</b> in Baku in April 2013 and in Astana in April 2014 and in April 2015 in Almaty. The EC funded support to EuFMD assisted with facilitation, PCP assessments and supported experts from Turkey, Georgia and Iran to attend, as well as representative from Pirbright WRL (Don King) in April 2015.</p> <p><b>Regional Capacity building:</b> <b>Achieved, with good indicators of how to effectively improve capacity in the region</b></p> <ul style="list-style-type: none"> <li>a. A Real-time training course was held in Erzurum, Turkey, in Russian and Turkish languages (June 2014). Participants attended from Turkey, Azerbaijan, Armenia and Georgia as well as other EuFMD member state countries. E-learning material translated into Russian</li> <li>b. A Webinar Series coordinated by EuFMD, in support of the OIE/FAO FMD working group has been established, following the recommendation of the Astana 2014 meeting. The aim of the webinars was to connect experts in the region and provide training on technical topics such as designing and monitoring vaccination programs and outbreak investigation. Webinars were held in English and Russian languages (ie 2 webinars for each topic, one per language). 3 webinars have been held in English and 3 in Russian.</li> <li>c. A Russian language version of the "FMD Emergency Preparation Course" was carried out in March 2015. There were over 70 trainees from 8 countries (Georgia, Armenia, Azerbaijan, Kyrgyzstan, Russian Federation, Moldova, Belorussia, and Ukraine). The course involved a number of live webinars and trainees were also supported through an online discussion forum where they could ask questions of expert trainers, and discuss a wide variety of FMD related topics.</li> </ul>
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## Expected Result achievement (Workplan)

Level	Description	Indicators	Monit.& eval.	Achievement
<b>Outputs</b>				
<b>Comp. that the ACTION is expected to achieve</b>	<b>2.1 South-East Europe:</b> risk based control programmes (PCP Pathway) adopted and implemented in <b>Turkey</b> and neighbours, improved regional co-ordination.	Assessment of National risk based control programmes (PCP Stage 2+) M&E systems established in Turkey and Georgia. M&E system report on progress indicators (national risk based control programmes) FMD Database operational and used by increased number of MS PCP progress indicators – Turkey and neighbours.	Reports to W/ Eurasia Regional Roadmap reports Assessment by GFTADS ExCom Reports Monthly Reports (EuFMD)	- Georgian and Turkish Risk Based Strategic plan accepted by the Regional Advisory Group (under GF-TADS), Georgia has achieved Stage 2 of PCP in 2015. An input to M&E system for Turkey and Georgia has been made, needs further development and more commitment from the countries. FMD database is operational but needs further improvements. Increased number of MS is expected for the Phase IV.

Monthly Reports from EuFMD include monthly data on FMD or control measures from an increased number of neighbourhood countries			
Actions			Achievement
Turkey	1. Assist with development of risk-based strategic plan	RBSP document written	ExCom report
	2. Assist with <u>establishment</u> epi and monitoring unit	- Unit established - function of unit clearly defined and documented - indicators that will be monitored are defined	ExCom report Unit documentation
	3. Assist with <u>implementation</u> of epi. and monitoring unit	- reports of data monitoring produced regularly	ExCom report Unit reports
	4. Implement targeted research studies	- key gaps in knowledge defined and documented - study designs documented and circulated for technical input	ExCom report
	5. Analyze results from research studies, including use of economic models, for options analysis (impact, cost/benefit) for FMD control policy	- reports describing results are available	ExCom report Study reports
	6. Provide technical support		No progress has been achieved

	to reduce the risk posed by interprovincial spread by animal marketing				
	7.Evaluation of progress, stakeholder discussions, proposals for follow-up for next 3 year period	- evaluation report available - reports from stakeholder workshops - proposal documented	ExCom report Meeting documents		No progress
<b>Georgia</b>	8.Assist with development of risk-based strategic plan	RBSP document written	ExCom report		Risk Based Strategic plan has been developed and accepted by the Regional Advisory Group (West Eurasia Roadmap, Almaty, 2015)
	9.Assist with <u>establishment</u> of monitoring of RBSP	- indicators that will be monitored are defined and data collection planned	ExCom report		Target and indicators were defined for key control activities
	10.Assist with <u>implementation</u> of monitoring of RBSP	- reports of data monitoring produced regularly	Unit reports		Assistance with the design and plan for data collection and analysis of autumn sero-surveys in 2014 and 2015. RBSP revised and updated in July 2015
	11.Implement targeted research studies	- key gaps in knowledge defined and documented - study designs documented and circulated for technical input	ExCom report		EuFMD supplied SP and NSP to test serum samples taken from calves vaccinated with emergency vaccine that was about to expire and calves vaccinated by ARRIAH vaccine
	12.Analyze results from research studies, including use of economic models, for options analysis (impact, cost/benefit) for FMD control policy	- reports describing results are available	ExCom report Study reports		Not achieved
	13.Evaluation of progress, stakeholder discussions, proposals for follow-up for next 3 year period	- evaluation report available - reports from stakeholder workshops - proposal documented	ExCom report Meeting documents		Not achieved

<b>W. Eurasia region</b>	14.Support information gathering & sample submission from neighbourhood risk regions	<ul style="list-style-type: none"> <li>- nat. Consults. recruited</li> <li>- outbreak and vaccination data received</li> <li>- Data are visible on Empres-i</li> <li>- Monthly reports available</li> <li>- WelNET meetings held</li> <li>- samples submitted to labs from countries in the region and results reported via WelNET</li> <li>- real-time training course held</li> <li>- Roadmap meetings attended by experts (EuFMD and from region)</li> </ul>	<p>ExCom report Empres-i Meeting report, Excom report Course report Meeting report</p>	<p>Real-time training held in Erzerum, Turkey in Russian and Turkish languages FEPC online course conducted in Russian language for 8 countries West Eurasia Webinar series -3 in russian and 3 in english Data about FMD vaccination from Armenia, Azerbaijan and Georgia is visible in West Eurasia Empres-i database. Turkey stopped reporting in 2014. EuFMD assisted with facilitation, organization and PCP assessment of West Eurasia Roadmaps in 2013.2014 and 2014</p>
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## Component 2.2 South-East Mediterranean: support better management in the neighbourhood of Cyprus and Israel

**Objective:** To improve the capacity of countries in the region to manage FMD through the framework of PCP activities, to support regional coordination of activities and to improve the information available to risk managers about FMD threats by supporting surveillance information gathering from livestock trade related parts of North East Africa.

**This overall objective has been Partially achieved.**

Egypt and Palestine have developed, under guidance, and for the first time, risk-based strategic plans (RBSP) for their national programmes. For Egypt this RBSP was presented in December 2015 on the Middle East and Northern African regional roadmap meeting in Doha, Qatar, December 2015, shortly after phase III ended. For Palestine the RBSP was not completed at the end of Phase III but near completion at the time of writing this report. In both countries outbreak investigation has significantly improved after training/workshops and the number of outbreaks reported and samples collected, typed and characterized have also significantly increased. Considering the endemic status of both countries and the work in progress regarding RBSP development, risk-based surveillance was postponed. For Israel and Palestine a joint workshop on risk-based surveillance and risk-based vaccination is foreseen in phase IV. Despite serious efforts a steering committee to coordinate FMD activities in Israel and Palestine was not realized, due to the political situation and the tensions between both parties. Co-ordination of work was however achieved by close communication of the EuFMD/FAO team with both parties. The Network activities in sub-Saharan East Africa have been supported to collect information on current FMD threats, and this information made available to the risk managers in Israel, Cyprus, and countries in the region. Nevertheless the targets for virological surveillance in pools 4 and 5 have not yet been met and in phase IV several activities have been dedicated to reach these targets and improve the disease intelligence from countries in East and North-East Africa.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
Risk Based Strategic Plans (RBSP) adopted and PCP progress achieved (Palestine and Egypt)	<b>Largely achieved for Egypt and Palestine.</b> These two have developed risk-based strategic plans (RBSP) on national levels. In both countries a series of workshops have been organized on RBSP development accompanied by laboratory trainings. For Egypt this RBSP was almost finished at the end of phase III and was presented in December 2015 on the Middle East and Northern African regional roadmap meeting in Doha, Qatar, December 2015, resulting in a provisional stage 2 assessment. For Palestine the RBSP was 75% finished at the end of phase III. Due to the political situation in the West Bank working days were relatively short and more workshops were needed. At the the time of writing this report the RBSP is near completion.
System established to improve confidence in disease detection and/or freedom (as applicable) in neighbourhood of Israel (Palestine initially; Egypt	In both countries outbreak investigation has significantly improved after training/workshops and the number of outbreaks reported and samples collected, typed and characterized have also significantly increased. In Egypt both active and passive surveillance has been improved and consequently also the number of samples collected, typed and characterized. Several shipments to WRLFMD have been organized, providing relevant information regarding the

and others according to national demand)	<p>currently in Egypt circulating serotypes and lineages. In Palestine outbreak investigations were also intensified and samples were investigated both in the Palestinian CVL in Al Aroub and by the Kimron Veterinary Institute, including sequencing and phylogenetic analysis. A monthly report format covering the national FMD situation has been introduced in Egypt, as part of their monitoring system for PCP Stage 2, and this is a major step forward.</p> <p>Considering the endemic status of both countries and the work in progress regarding RBSP development, introduction of risk-based surveillance (detection of circulation in high risk populations) was postponed. In Israel several NSP serosurveillance studies, supported by EuFMD, were carried out including risk factor analysis to shed more light on the prevalence of FMD infections in large ruminants, small ruminants and wildlife. These studies have resulted in three peer-reviewed publications and provide valuable data to discuss risk-based surveillance. For Israel and Palestine a joint workshop on risk-based surveillance and risk-based vaccination is foreseen in phase IV</p>
Coordination framework in place to oversee and assist activity implementation nationally and regionally	<p>Due to the political situation a joint steering committee for Palestine and Israel has not been realized, despite serious efforts. However, after every phase III mission the Israeli colleagues have been updated about the Component activities and progress in Palestine and vice versa. Regional co-ordination as originally envisaged (Cyprus meetings of regional CVOs) did not take place as the CVO Israel did not consider they would provide a real benefit, and as Jordan and Lebanon and Egypt have joined REMESA, other opportunities exist to co-ordinate, but a gap being between Israel and neighbours remain, where in the interim, EuFMD/FAO has been required to play an intermediary role in other ways than meetings.</p> <p>For Egypt an inter-institutional FMD task force has been developed and several meetings were held.</p>
System in place to provide improved disease risk information to managers in Israel and Cyprus re: current threats from sub-Saharan East Africa	<p><b>Partially achieved</b>, although the main risks in the period changed from North-East Africa to Arabian Gulf countries and South Asia, as a source to Israel/neighbours. This Network activities in sub-Saharan East Africa have been supported to collect information on current FMD threats, including several shipments from pool 4. Information has been supplied to risk managers through the EuFMD Global Monthly Reports and the WRLFMD quarterly and annual reports.</p> <p>In phase III samples from Ethiopia, Tanzania, Kenya, Tanzania, Rwanda and Uganda have been serotyped and/or genotyped. Nevertheless the targets for virological surveillance in pools 4 and 5 have not yet been met and in phase IV several activities have been dedicated to reach these targets and improve the disease intelligence from countries in sub Sahel Africa.</p>



## Expected Result achievement (Workplan)

Outputs	Indicators	Achievements
<b>1. Planning: developing risk-based strategic plans for FMD at national level.</b>	PCP progress indicators and establishment of RBSP	In Egypt and Palestine RBSPs developed and capacity of VS and labs improved
<b>2. Systems: developing a risk-based surveillance for FMD to increase confidence in disease freedom and/or confidence that FMD outbreaks will be detected at an early stage.</b>	Estimates of confidence in disease freedom/outbreak detection available to national managers.	In Egypt and Palestine outbreak investigation, passive and active surveillance improved. Risk-based surveillance not yet trained and implemented
<b>3. Framework: Develop a steering committee at technical level involving the relevant veterinary services to oversee activities and pro-actively identify areas for attention</b>	Steering committee established, regular meetings held.	For Egypt an inter-institutional FMD task force has been developed and several meetings were held. Due to the political situation a joint steering committee for Palestine and Israel has not been realized
<b>4. Disease information for risk managers: support to network activities in sub-Saharan East Africa to collect information on current FMD threats</b>	Regular reports sent to EuFMD include data on FMD or control measures from an increased number of neighbourhood countries	Network activities in sub-Saharan East Africa supported, virological surveillance increased Information supplied through GMRs EuFMD and WRLFMD quarterly and annual reports Targets for surveillance not yet reached.

## **Component 2.3** Assist national FMD risk management as part of the REMESA action plan

**Objective:** Assist national FMD risk management as part of the **REMESA** action plan

**This Component has largely delivered on its objective** to assist national risk management as part of the regional (REMESA) action plan. The main objective achieved during phase III of EuFMD workplan (comp 2.3) were the improvement of cooperation and coordination with national authorities and with other international organizations and the increased level of transparency and reciprocal confidence observed among countries and institutions.

However, the epidemic of type O (India 2001 topotype) that affected Tunisia, Algeria and Morocco in 2014-2015 present the case that the national risk management in parts of REMESA (Libya especially) was inadequate and emergency management was required as a result. The workplan was developed in mid-2013, when it was envisaged by OIE that 3 countries could progress towards official recognised freedom. The activities required to be changed in the countries as a result of increased insecurity in Libya, and the epidemic spread to Tunisia, which are connected. The change in activities towards crisis response, and support to scale up training (online courses) has been a well appreciated response that has contributed to national risk management especially in Algeria and Morocco.

This Component involved a new set of working arrangements, which have gone well; with EuFMD regularly participating to the REMESA JPC meetings organized twice a year by the REMESA Secretariat with all the REMESA countries. During the JPC meetings EuFMD regularly presented the status of the activities planned under Component 2.3, discussed the joint support and coordination with FAO and OIE and proposed additional actions according to the epidemiological situation and to needs identified by countries. Plans and reports of Component 2.3 (and as well of Component 2.2) were always endorsed during the REMESA JPC meetings.

The regular support provided by EuFMD in peace time and during the emergencies was targeted to the surveillance, contingency, vaccination, and laboratory needs identified together with the CVOs of the beneficiary countries and the international organizations operating in the area. This approach allowed, besides the improvement on FMD control capacity, to implement activities more targeted to the real needs, to avoid duplication of actions, to guarantee the sustainability of the results achieved and it allowed building trusts and confidence in the support proposed and provided.

During the development of the programme some issues were identified (reported hereunder) which limited the possibility to implement all the activities as planned:

- ✓ During the development of the programme, FMD outbreaks have been detected in Tunisia (2014), and Algeria (2014-2015). The workplan and efforts were then more focused and directed to provide emergency support to the countries, including Morocco, in order to assist the planning and implementation of contingency and preparedness measures.
- ✓ The political situation in Libya and the lack of national resources in Mauritania influenced the progress of the programme in the two countries.
- ✓ Customs created some difficulties for delivering equipment, even during national emergencies.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
Risk based control programme (PCP Pathway) adopted and implemented in Libya and Mauritania	<p>Risk based control programme (PCP Pathway) adopted and implemented in Libya and Mauritania</p> <p><b>Partially achieved: Mauritania.</b></p> <p><b>Initial progress, unable to be continued: Libya</b></p> <p>The activity has started in both countries with two workshops focused on the analysis of livestock production value chain and FMD occurrence, the identification and quantification of key risks and important gaps regarding FMD control, the recognition of the FMD risk pathways, the analysis of activities that are required to develop and implement the RBSP and the possible options for FMD active surveillance.</p> <p>In Libya, after the implementation of the two workshops, due the level of security and the political instability, it was impossible to held other activities and continue the programme. The assistance provided was then limited to the provision of kits and LFDs and the support for the analysis of the surveillance results.</p> <p>In Mauritania, even though some concrete achievements have been obtained and it was observed an active participation during the workshops, the limited level of commitments, especially in the collection of relevant information between the workshops, slowed the process for the development of RBSP. It is recommended (and planned) that the work continues during the phase IV with a different methodology more based on the involvement of less officials for the development of RBSP to improve effectiveness of the analysis, the possibility of using joint resources with other programmes and the participation of the private sector (e.g. dairy industry) interested in the FMD control.</p>
Improved regional co-ordination	<p>Improved regional co-ordination</p> <p><b>Achieved: this co-ordination has been critical</b> to the co-ordinated emergency response to FMD outbreaks, but also to the effective support to partners (e.g. OIE and FAO) under the REMESA action plan.</p> <p>Regular coordination meetings (twice a year) have been organized by REMESA secretariat and attended by EuFMD to provide an update on the progress of the EuFMD programme (comp 2.3), discuss with REMESA countries and other institutions (FAO, OIE, EU Commission) the additional needs and the possible support requested and propose additional actions in line with the EuFMD workplan, looking at the resources and the material developed under other Components (e.g. trainings). EuFMD experts regularly attended workshops, meetings and other events organized by OIE and FAO and invited the institutions to attend own events.</p>
Regular information flow on FMD circulation in Mauritania/Western Sahel countries available to risk managers	<p>Regular information flow on FMD circulation in Mauritania/Western Sahel countries available to risk managers</p> <p><b>Partially achieved:</b> The analysis of the epidemiological situation and circulation strains in Mauritania and Western Sahel was reinforced through the provision of diagnostic kits and with specific trainings to Mauritania on outbreak investigation and active surveillance. Additionally actions were implemented with the assistance of ANSES to improve the network with Mali and Senegal aimed to share information on FMD prevalence, circulation and for laboratory capacity building in the area.</p> <p>The lack of national resources allocated for this purpose limited the possibility for Mauritania to carry out the serosurveillance but the efforts implemented for improving the outbreaks investigation allowed collecting samples from</p>

	<p>outbreaks that were then submitted to the WRL. Unfortunately due to the lack of resources and commitment this activity was not continuative. The surveillance designed by Mali and Senegal was shared between the countries.</p>
System established in the REMESA high risk area for FMD spread (Libya, Algeria, Tunisia) to provide continuous confidence in FMD freedom	<p><b>Objective changed</b>, with activities (and output) put on hold since epidemic FMD intervened. The system required for confidence in freedom would be needed once circulation has been shown to have ceased. However, most of the relevant activities have been implemented in the period after the occurrence of FMD outbreaks in Tunisia and Algeria and allowed to improve the passive surveillance (leaflets), outbreak investigation (FEPC, field missions, trainings, kits), active surveillance (kits) and prevention and control measures (experts and field missions). The activities implemented allowed to improve the capacity to design and implement active and passive surveillance with a risk based approach and to carry out analysis on the evolution of an epidemic with the identification of risk areas and periods.</p>
Morocco, Algeria and Tunisia disease freedom dossier submission to OIE.	<p>Regional strategy for risk-based surveillance and vaccination programme and strategy to establish a local/regional vaccine-bank</p> <p><b>Objective changed:</b> Initially the programme was focused on “Morocco, Algeria and Tunisia disease freedom dossier submission to OIE” and more based on the provision of diagnostic kits to carry out the surveillance requested for the freedom confidence. After the outbreaks in the area the activity was more focused on providing support for managing the emergency and controlling the spread of the virus with short and long term programming.</p> <p><b>Revised expected result: largely achieved.</b></p> <p>A major workshop for all the countries was conducted in August 2015, to reach a common understanding on the difficulties associated with the control of the FMD in 2014-2015, and to identify from “Lessons learnt” the priorities for attention for a REMESA Regional in order to reduce the risk of repeated incursions, reduce the impact if the disease is introduced and maintain a regular surveillance.</p> <p>The activities also supported OIE in development of a paper to support the regional vaccination strategy and in terms to defining the function of the regional vaccine bank in relation to national preventive vaccination programmes. The activities The activities implemented allowed to build a framework of common intent between countries and to give evidence to the importance of building a regional strategy for FMD surveillance and vaccination in North African context. Exchange of data and information was drastically improved during the implementation of the workplan.</p> <p>The close collaboration with OIE and FAO SNE, and the reciprocal participation to different events organized by FAO, OIE, and EuFMD facilitated this process which should continue in the Phase IV to obtain some concrete results in term of common objectives and actions (evidence of freedom in specific areas, early detection and simultaneous surveillance, risk based control strategy, training of stakeholders).</p>

## Expected Result achievement (Workplan)

Level	What will be achieved (Output) or will be done (Activity)	Indicators	Expected results	Achievement
<b>Output</b>	1.Risk based control programme (PCP Pathway) adopted and implemented in Libya and Mauritania.	<ul style="list-style-type: none"> <li>PCP progress indicators</li> </ul>	PCP progress. Strategic Plans.	Libya: value chain and risk pathways analysis Mauritania: value chain and risk pathways analysis
	2.Improved regional co-ordination	<ul style="list-style-type: none"> <li>Coordination meetings</li> </ul>	System for co-ordination gives confidence for investment	Regular reporting to REMESA countries on workplan implementation, difficulties, priorities and proposed actions
	3.Regular Information flow on FMD circulation in Mauritania/western sahel countries available to risk managers	<ul style="list-style-type: none"> <li>6 month OIE Reports</li> <li>Monthly Reports from EuFMD include monthly data on FMD or control measures from an increased number of neighbourhood countries</li> </ul>	Information on FMD risk	Facilitation of regional laboratory network + improvement on outbreaks investigation + surveillance design
	4.System established in the REMESA high risk area for FMD spread (Libya, Algeria, Tunisia) to provide continuous confidence in FMD freedom	<ul style="list-style-type: none"> <li>Regular reporting of Surveillance system.</li> </ul>	System established and operational	Improvement in active and passive surveillance capacity. Identification of high risk areas.
	5.Morocco, Algeria and Tunisia disease freedom dossier submission to OIE.	<ul style="list-style-type: none"> <li>Dossier submitted to OIE</li> </ul>	Dossiers submitted.	Output changed, as epidemic intervened. Replaced with modified output with DG-SANTE approval (2015)
	Regional strategy for risk-based surveillance and vaccination programme and strategy to establish a local/regional vaccine-bank	<ul style="list-style-type: none"> <li>Regional surveillance paper for REMESA</li> <li>Regional vaccination strategy paper delivered to REMESA</li> </ul>	Two Guidance papers based on workshops	Achieved; workshops held, Papers written, presented to REMESA JPC as joint work (EuFMD/FAO/OIE)

### Pillar III: Promote the global strategy of progressive control of FMD

#### Component 3.1 Support FAO FMD Unit in collating information for review of progress of regional programmes on FMD control

**Objective:** To collate, analyse and disseminate relevant information on regional FMD control programmes worldwide; support for workshops to coordinate this process.

This overall objective has had **limited achievement**.

The collation, analysis of information on national control programmes has been undertaken but the expected outcome of developing an annual Global Report did not materialise, and the result of the analysis have not been adequately disseminated to member states or the global community.

The risk identified with this Component was its reliance on the Gf-TADS working group, and day to day, the Component was managed by the Senior Officer AGAH responsible for the FMD Unit and FAO lead for the FMD Working Group. . The GF-TADS WG did not reach agreement on how a Global Report could be written between the parties and the opportunity provided by the assigned short term professionals from EuFMD MS to work with the FAO FMD Unit was wasted to develop such a report. The effort undertaken to collate PCP-FMD and control programmes remains useful as background but not as originally intended as a means to monitor progress made by GF-TADS to achieve uptake of the global strategy.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
Technical Development of Monitoring system (with SCRPD involvement).	The Frascati Session of the EuFMD Special Committee on Research and Programme Development (SCRPD) in 2014 made recommendations on the monitoring system useful to follow progress of the FMD control progress at national level, and monitor the Global Strategy. There was not considered a very strong need to develop a specific (FMDV) monitoring system for FMD circulation in PCP Stages 1 and 2, rather to focus on processes in place in countries relating to the PCP. Two subsequent attempts were made to develop surveys (the latter involving FAO-ESS to send to FAO member states) without these being applied (it was FAO responsibility to manage the surveys).
Systematic collation and analysis (by STP)	There was a <b>significant effort</b> to collate information control programmes, by three professionals (STPs) supported under the Action. The collation and use of results were managed by the FAO based Secretary to the FMD Working Group of GF-TADS.
Assist FAO/OIE Working Group to produce an annual Global FMD Report.	<b>No progress.</b> A draft template for the Global Report was provided by EuFMD as a proposal. This remained on the table for the GF-TADS working group but no decision was made by them on timetable to assemble, review and publish a Global Report. The responsibility lies here with the FMD WG, whose decisions and request for support guide the inputs from EuFMD.

### **Component 3.2 Progressive Control Pathway (PCP)**

**Objective:** The objective is to enhance the international capacity for the application of the EuFMD/FAO.

The objective of this Component has been **achieved partially** as explained in more detail under the summary. The expected results of the Component have been **substantially achieved**, but take up and application (through FAO and OIE) has been much less effective or active than expected, as it had a dependence on the GF-TADS (FAO/OIE) FMD Working Group.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
<i>Dissemination of the principles and applications of PCP-FMD, primarily for countries endemic with FMD but including EuFMD member states and neighbourhood (REMESA.); Developing guiding documents (guidelines and technical notes), trainings and workshops on PCP-FMD.</i>	The activities requested of EuFMD were defined by the FMD Working Group of GF-TADS in close discussion with the Component 3.2 team. The FMD WG was expected to find funding for training in the field, and their lack of funding for this side impacted the uptake of the outputs developed, particularly uptake of the system for training that had been designed to build a cadre of PCP-FMD experts to assist FAO and OIE in regional and national support to countries.
PCP toolbox developed for PCP-FMD user community, including guiding documents developed for joint FAO/OIE application.	<p><b>Achievement: fully achieved</b></p> <ul style="list-style-type: none"> <li>a. A range of PCP-FMD relevant modules and guidelines have been developed and authorized by the FAO/OIE FMD Working Group. These relate to the plans needed for countries that want to move up one position on the PCP-Stages. The Risk Assessment Plan to go from Stage 0 to 1, the Risk-based Strategy Plan to go from Stage 1 to 2, and the National Control Plan to go from Stage 2 to 3.</li> <li>b. Additionally, technical guidelines have been developed on 'Disease Outbreak Investigation' and support has been provided to guidelines on 'Post-Vaccination Monitoring'. Currently under development is the guideline on 'Socio-economic impact analysis of FMD'.</li> <li>c. These outputs have been used in EuFMD Pillar II activities, with countries in the neighbourhood but uptake elsewhere has been delayed by lack of training in their use (Output 2).</li> </ul>
System for training PCP-FMD experts well established and supported by resources.	<p><b>Achievement: Partial</b></p> <ul style="list-style-type: none"> <li>a. Standards expected (competences) of international PCP-FMD experts were identified as part of developing a training for regional FAO and OIE staff.</li> <li>b. A Training programme was developed for application to building FAO and OIE regional staff and experts competences in applying the PCP-FMD, with the aim thereafter of training other regional experts to build a global cadre of expertise. The FMD Working Group were tasked to find funds for such training but had only limited success in this respect.</li> <li>c. In June 2014, a 1.5 day PCP-FMD training of trainers was conducted at FAO-HQ with 20 staff from different sections of the AGAH, while in October 2014, an extended 3-days training of 8 trainers was conducted for regional FAO staff from North and East Africa in Kigali, Rwanda. Overall, this resulted in an estimated 15 experts qualified in the PCP-FMD approach.</li> </ul>

	<p>d. A classroom simulation exercise was developed capturing all aspects of PCP-FMD Stage 1 (value-chain analysis, economic impact analysis, virus characterisation, regional collaboration, stakeholder consultation, etc) for an imaginary country “Aphtostania”. The simulation exercise has been used during various PCP-FMD workshops (Libya, Egypt) and PCP-FMD training of trainers (see point 2b above).</p> <p>e. Initial steps were taken to establish a mechanism safeguarding the sharing of gained experiences amongst PCP experts. Workshop and training materials such as webinar materials, game and guidelines are the basis for such mechanism.</p> <p>f. During the Open Session of EuFMD, a presentation was given on the application of the RBSP with examples from various countries. A poster was presented at the SVEPM (Society for Veterinary Epidemiology and Preventive Medicine) to be held in Ghent – Belgium, March 2015.</p>
Representation in regional roadmap meetings, FAO/OIE FMD working group and EuFMD executive meeting.	<p><b>Achievement: fully achieved</b></p> <p>a. Based on previous roadmap meetings, the assessment procedure for assignment of countries in PCP-FMD stages was refined, TORs were written for the Regional Advisory Groups (RAG) and a template is used to assess content and relevance of national control plans for FMD.</p> <p>b. EuFMD has actively participated in the regional roadmap meetings:</p> <ul style="list-style-type: none"> <li>-Middle East and Northern Africa, March 2014, Amman in Jordan</li> <li>-West Eurasia, April 2014, Astana in Kazakhstan</li> <li>-Eastern Africa, October 2014, Kigali in Rwanda</li> <li>-West Eurasia, April 2015, Almaty in Kazakhstan</li> </ul> <p>Its support to these meetings was through facilitating the PCP-FMD assessment process including evaluation of the PCP-FMD Self-assessment questionnaire, assessing FMD activities based on the country presentations, conducting interviews with countries one-by-one. These different pieces of information were aggregated and analysed into an advice for the Regional Advisory Group.</p> <p>c. EuFMD has repeatedly requested the FAO/OIE FMD Working Group to guarantee follow-up from these regional roadmap meetings as to keep countries motivated to progressively work on FMD control. In particular, feedback on strategy plans on FMD control was provided from EuFMD side to the FAO-FMD unit.</p>



## Overall Indicators (Action logframe)

Component Objective	Indicators	Progress achieved	Assumptions (August 2013)
International capacity for the application of the EuFMD/OIE/FAO progressive control pathway for FMD (PCP) enhanced through development of tools, guidelines and knowledge transfer.	<p>Number of guidance documents updated and approved by OIE/FAO and available online</p> <p>Number of international experts qualified in PCP approach</p> <p>Number of experts regularly using the PCP tool developers network</p>	<p>Guidelines and guiding documents prepared, released and supported by training resources:</p> <ul style="list-style-type: none"> <li>• Risk Assessment Plan</li> <li>• Risk-based Strategy Plan</li> <li>• National Control Plan</li> <li>• Post-Vaccination Monitoring</li> <li>• Disease Outbreak Investigation</li> </ul> <p>Training of PCP-FMD trainers established, including a simulation exercise on developing a risk-based strategic plan for FMD control, called "Aphtostania" resulting in 15 experts qualified.</p> <p>Facilitation at 4 FAO/OIE Regional Roadmap Meetings and technical support to PCP-FMD assessment procedures and follow-up activities</p>	Continued functioning between FAO and OIE of the Working Group will assist.

### **Component 3.3 Global FMD Reference Centre capacity to support the Global Strategy enhanced**

**Objective** The objective of this Component is to support the FAO/OIE global FMD laboratory network as part of the global FMD control strategy.

**The overall objective has been largely met**, as specified below, and in the final WRLFMD report describing the activities and outputs under the Letter of Agreement (LoA) 2013-2015.

The objective of increased level and quality of surveillance information from the OIE/FAO Lab Network, with progress towards the targets required for regional roadmap vaccine priority setting in at least the 3 priority virus pools (Africa and West Eurasia), has been substantially achieved. Targets were not reached in Pool 5 (West Africa), and new risk regions (South Asia) have become more important in 2014-15 to prioritise, given the multiple incursions from this Pool (2) into the mid-East and North Africa. The EC support to the this Component, and thus to the OIE/FAO FMD Lab network has played an crucial role in recognising th4ese new threats and increased efficiency of the network has resulted from changes introduced through this Component. Additionally capacity building was realised in Regional Support Labs (RSLs) in Pool 4 (Embakasi FMD laboratory, Nairobi, Kenya) through provision of reagents, kits and equipment and training and trouble-shooting for immunodiagnostic and molecular assays.

However, many gaps still exist in FMD surveillance in East, Central and particularly West Africa. A closer working relationship has to be established with the European NRLs for global surveillance group. There are still significant gaps in the availability of reagents (bovine vaccinal sera and relevant vaccine viruses) for many commercial vaccines (outside of Sanofi/Merial and MSD/Intervet) and locally-used vaccines that are administered in endemic areas.

Activities will therefore in 2015-17 in Phase IV be aimed to re-invigorate regional laboratory networks, with better epidemiology linkages, to ensure better technical expertise development at regional levels, underpinning surveillance and regional roadmaps. The role of The Pirbright Institute (TPI) in providing the core of the international surveillance required will continue to be supported by a contract, to provide services to the European neighbourhood and globally, including diagnostic service, vaccine matching, molecular epidemiological analysis of worldwide and regional FMD patterns, and provision of laboratory proficiency test (PTS) ring trials to FMD laboratories in non-EU states and internationally; and to continue as Secretariat of the OIE/FAO FMD lab network. Under this contract also Regional Support Laboratories in pools 4 and 5 will be supported to screen samples from their regions as part of the need to achieve Pool level surveillance targets and to ship samples to TPI for further characterisation. The OIEW/FAO FMD lab network needs to address the need for virus typing and virus isolates from Pool 2.

Well-functioning regional laboratory networks, with better epidemiology linkages, are vital to ensure better technical expertise development at regional levels, underpinning surveillance and regional roadmaps. Therefore networking activities will be stimulated and supported mainly by virtual networking using the model of the webinar programmes for West Eurasia.

<b>Outputs (Expected results)</b>	<b>To what extent have each of these expected results been achieved?</b>
Creation of a framework for coordination of laboratory support activities within the FAO/OIE global laboratory network	<p><b>Largely achieved.</b></p> <p>Two Annual OIE/FAO FMD laboratory network meetings were held, in 2013 and 2014 with support from Component 3.3. This network has become more effective with establishment of two Network Working Groups to address isolate, strain and topotype nomenclature and to provide recommendations about coherent naming of FMD viruses; and to explore vaccine recommendations for endemic settings including harmonization of in-vitro vaccine matching methods.</p> <p>Coordination and exchange of information has been carried out associated with the emergence and spread of the O/ME-SA/Ind-2001 lineage from the Indian sub-continent that has involved PD-FMD (India) and IZSLER (Italy), as well as NRLs and FMD researchers in Libya, UAE, Saudi Arabia, Sri Lanka, Nepal and Bhutan.</p>
System in place for supporting diagnostic activities to be carried out by WRL	<p><b>Achieved</b></p> <p>Under the LoA between FAO/EuFMD and the Pirbright Institute submission of samples to and exchange of sequences with WRLFMD has significantly increased. Overall targets for numbers of samples serotyped in the network (not by WRLFMD alone) have been achieved. Numbers of samples genotyped and number of field strains for which vaccine matching has been performed have exceeded the targets in the LoA.</p>
System in place for supporting the collection of samples from outbreaks in pools 4 and 5	<p><b>Partly achieved.</b></p> <p>For pools 4 and 5 targets have not been reached, though great effort and some progress was made.. Too few countries have submitted samples and also the targets in numbers of spatio-temporally different outbreaks per country per year have not been reached. Regional Support Laboratories (RSLs) in pools 4 and 5 have been identified and specified in the LoA 2013-2015. These RSLs should be supported to screen samples from their regions as part of the need to achieve pool level surveillance targets and to ship samples to TPI for further characterisation. Well-functioning regional laboratory networks, with better epidemiology linkages, are vital to ensure better technical expertise development at regional levels, underpinning surveillance and regional roadmaps. Therefore networking activities will be stimulated and supported mainly by virtual networking using the model of the webinar programmes for West Eurasia.</p>
Support for a global proficiency test scheme, to include 12 laboratories in the global network	<p><b>Substantially achieved.</b></p> <p>The proficiency of the OIE, FAO reference centres to provide valid typing information is vital to global surveillance. The support has enabled them to participate in the annual PTS exercise, together with the regional support labs (RSLs) which are supervised to increase their participation in regional typing. Increased participation in the proficiency tests organized by WRLFMD has been realized with 6 OIE/FAO Reference Centres plus all 4 RSLs for pools 4 and 5 participating in 2014.</p>

### Expected Result achievement (Workplan)

Comp	Output	Description	Performance indicators	Expected result	Achievement
3.3	1. Create a framework for, and coordinate with, the FAO/OIE global FMD laboratory strategy.	Ensuring that communication and data sharing within the network is harmonised and effective; providing a forum for information exchange and discussion of issues through an annual OIE/FAO ref lab meeting; disseminating data and analysis through an annual global report.	1.1 Number of network labs providing monthly updates to WRL	1.1 At least 12 in the first 12 months, at least 15 in the second 12 months	Monthly Reports were maintained by EuFMD (Global Monthly Report) with FAO, OIE and Regional Support Labs (RSLs) and some national labs providing monthly reports.
			1.2 Number of annual OIE/FAO ref lab meetings held, with attendance of leading regional labs	1.2 Two meetings held, one in 2014 and one 2015, with leading regional lab delegates attending	Fully Achieved (2 meetings)
			1.3 Number of annual reports generated	1.3 Two annual reports generated, 2014, 2015	Fully Achieved (2 reports)
			1.4 Number of steering meetings/teleconferen-ces held between WRL and FAO/OIE under GfTADS lab network	1.4 At least once every three months	Partially achieved: working group established under the HE OIE/FAO FMD ref lab network
			1.5 Frequency of communication between WRL and network laboratories	1.5 At least one substantial communication of data every three months with network labs	WRL produced quarterly surveillance reports (8 in 2 years). WRL provided editorial lead to the four of the monthly reports of the EuFMD per year. WRL contributed experts to EuFMD webinars for the networks. Sequence and data exchange between WL and network

				labs (reported in the Final WRL report of the LoA)
2. Provide a system and implementation for the provision of world reference laboratory (WRL) diagnostic services in support of the global FMD strategy.	Testing of FMD samples submitted to WRL or to global network labs/regional support labs for testing with the technical support of WRL; communication of the results to the relevant parties, including EuFMD; supporting sample shipment to WRL; ensuring that all these activities are in support of and advance the global FMD strategy	2.1 Number of samples serotyped by antigen detection (some of these samples may be tested in network labs with technical support from WRL)	2.1 <b>1,000</b> samples per year (not all need be tested in WRL if appropriate technical support provided to network labs, but all must be reported by WRL)**	Not achieved at WRL alone (: >500 per annum at WRL -under contract period) Achieved: >2150 <u>across network</u> labs per annum, 2013-2014
		2.2 Number of samples vaccine matched	2.2 200 samples	<b>Achieved</b> at WRL: 507 VM in 2 year period (>250 per annum). <b>Exceeds contract expected result.</b>
		2.3 Number of P1 or VP1 sequences generated	2.3 200 samples/year	Achieved: 664 sequences, in 2 years. <b>Average of &gt;330 exceeds contract expectation.</b>
		2.4 Target for samples from virus pools 3, 4, and 5 as per EuFMD recommendations from 39 <sup>th</sup> GS	2.4 Aim to provide characterisation of representative viruses from each of these endemic pools (target levels set at 120 samples/year/pool from spatially and temporally distinct field outbreaks*** dependent upon material submitted to WRL). Representative samples vaccine matched to European vaccine banks; samples made available for vaccine matching elsewhere in return for feedback.	<b>Target exceeded (240 in period) for Pools 3 and 4.</b> Pool 3: 388 samples tested 193 locations. <b>71 VMTs completed.</b> Pool 4: 209 tested: just less than target for pool. Too few countries. <b>Only 20 VMTs completed.</b> Pool 5: 99 samples tested against target 240. <b>Only 6 VMTs.</b> With

					<p>network labs, total = 237 (just less than target). But only 6 countries provided samples, too few.</p> <p><b>Target met in Pool 5 with results of other FAO/OIE labs combined, but too few vaccine matches.</b></p>
	<p>3. Conduct a global FMD proficiency testing scheme (PTS) in support of the global FMD strategy.</p>	<p>Assessment of the FMD testing proficiency of leading regional laboratories through a PTS with follow-up activities implemented where relevant</p>	<p>3.1 Number of global FMD network regional leading labs participating and reporting results in a timely manner each year</p> <p>3.2 Annual OIE/FAO ref lab meeting (output 1) used to decide on panels and coordination</p>	<p>3.1 12 laboratories within the global network</p> <p>3.2 PTS arrangements discussed at ref lab meeting, including EuFMD involvement in discussions</p>	<p>Target not met in 2013, but met in 2014.</p> <p>2013: 5 plus IZSLER and CODA = 7</p> <p>2014: 10 + IZSLER and CODA = 12</p> <p><b>Achieved.</b></p>
1.7	<p>4. Increased participation and better national alignment of the NRLs in the European neighbourhood to the EuFMD and EU standard for FMD diagnostic NRLS performance.</p>	<p>Assess the performance of labs in EuFMD member states which are not in the EU, and other European neighbourhood labs, via a PTS, to better align their performance with EuFMD and EU standards, and to increase the level of participation in this process.</p>	<p>4.1 Number of non-EU EuFMD member state and European neighbourhood labs participating in the PTS</p> <p>4.2 Coordination and feedback to EuFMD on NRL participation</p>	<p>4.1 24 labs participate</p> <p>4.2 Feedback provided at least every six months to EuFMD</p>	<p>4.1 Target not met in 2013 and 2014, but high effort has gone in to achieve their involvement and numbers are rising towards expectation</p> <p>2013: 17 non-EU participated.</p> <p>2014: 20 non-EU participated</p> <p>4.2 Feedback provided</p>

### Annex 3: Indicators of achievement - results in relation to the indicators given in Annex 1 of the Action (Phase III Agreement).

These are provided below, as the contracting authority may wish evidence of achievement in relation to those given in **Annex 1** at project signature. It must be noted that **Annex 1 to the Action (Agreement)** listed a set of indicators and targets, some of which were modified in the set of final workplans as agreed with the Project Steering Committee (Executive Committee/EC).

PILLAR- Comp Oct'13-Sept'15		Activity	Indicator	Target	Results
1.1	Capacity for FMD response	RealTime training-Kenya	Number of courses run	3 vets trained per MS: 111 in total	<ul style="list-style-type: none"> <li>• 90 vets trained</li> <li>• Ten courses run</li> <li>• <b>81 % target reached</b> (Note: this relates to Real-Time Courses only, when all courses offered are included, target was reached)</li> </ul>
	FMD	E-learning	Number of MS with staff accessing e-learning	37 MS with vets using e-learning	<ul style="list-style-type: none"> <li>• 520 vets enrolled in e-learning courses,</li> <li>• <b>Target exceeded</b></li> </ul>
1.2	Contingency planning	Decision Support Epi. Exp. Tailored courses - training	Number of workshops run; e-learning courses completed; meetings for Epidemiology; courses run	60 vets attending workshops and/or e-learning courses Annual meeting attended by at least 25 EuFMD MS 6 courses run in response to specific MS demands	<ul style="list-style-type: none"> <li>• <b>Target exceeded</b></li> <li>• Training point nominated in each EuFMD Member State and four webinars and newsletters produced to update focal points on training opportunities.</li> <li>• 3 physical workshops: 20 participants</li> <li>• 2 webinars: 30-100 participants per webinar</li> <li>• Bespoke epidemiology training for 1 MS (Turkey): 21 participants</li> <li>• Online "contingency planning knowledge bank" established with average of 4100 user interactions with webpage per month.</li> <li>• Modelling network meeting held at EuFMD Open Session, subsequently five network webinars organized</li> <li>• Contingency planning network established and two webinars held</li> <li>• Vaccination network established and one webinar held</li> </ul>

PILLAR- Comp Oct'13-Sept'15		Activity	Indicator	Target	Results
					<ul style="list-style-type: none"> <li>• Prototype economic impact calculator designed and demonstrated to MS</li> </ul>
1.3	Thrace	Surveillance activities	Surveillance data made available	Analysis based on data from G/B/T every 3 months	<ul style="list-style-type: none"> <li>• 8 reports available</li> <li>• <b>Target achieved</b></li> </ul>
		Training (wkshop/ training) Coord. activities	Wshops/meetings held; Coord. Meetings held	12 meetings/ wkshops	<ul style="list-style-type: none"> <li>• 12 workshops/meetings held</li> <li>• <b>Target achieved</b></li> </ul>
1.4	Balkan	CVO meeting Lab training Pts; reagents/ equipment PEPc (epi, modeling, cont....)	Training workshops; Participation in annual WRL PTS; Supply of reagents and equipment to Balkan countries;	6 wkshop/ training events; All Balkan countries participate in annual PTS Each Balkan country to have FMD screening & confirmatory capacity	<ul style="list-style-type: none"> <li>• 11 Workshop/training</li> <li>• 183 Participants/trained</li> <li>• WRL PTS: 2 in 2013; 4 in 2014</li> <li>• Reagents and equipment: Achieved – supply 2015</li> <li>• <b>Target exceeded</b></li> </ul>
	Balkan	Simulation Exercise	Cross-border international simulation exercise held	One cross-border simulation exercise held	<ul style="list-style-type: none"> <li>• 286 People trained in workshops and simulation exercise</li> <li>• <b>Target exceeded</b></li> </ul>
1.5	Research	<i>Commission research projects</i>	Letters of agreement signed with recipient organizations	8 research projects funded	<ul style="list-style-type: none"> <li>• LOAS signed with Friedrich Loeffler Institut; ANSES: Coda Cerva; Royal Veterinary College; The Pirbright Institute; FVST; DEMA</li> <li>• <b>Target achieved</b></li> </ul>
	Research	Collate progress, M&E	Reports on progress provided to ExCom, STC and Special Committee	4 status reports provided, one per ExCom meeting	<ul style="list-style-type: none"> <li>• 5 reports provided (Excom 86 October 2013; Excom 87 April 2014; Excom 88 Oct 2014; Excom 89 Feb 2015; Excom 90 Sep 2015)</li> <li>• <b>Target exceeded</b></li> </ul>
	Research	Closed SC / Open STC meeting	Meetings held	Two closed meetings held; One Open meeting held	<ul style="list-style-type: none"> <li>• One closed meeting held (Croatia, Oct 2013)</li> <li>• <b>50% target achieved</b></li> <li>• One open meeting held October 2013 Croatia</li> <li>• <b>Target achieved</b></li> </ul>
	Research	STC Res Fund meeting	STC meetings held	4 meetings held	<ul style="list-style-type: none"> <li>• 1 Physical meeting January 2013 Rome; 3 online</li> <li>• <b>Target achieved</b></li> </ul>
1.6	Emergencies	Emergencies		Retain funds for use in major crisis (e.g.	<ul style="list-style-type: none"> <li>• Emergency reserve was maintained while response actions were also mounted</li> <li>• <b>Target achieved</b></li> </ul>



PILLAR- Comp Oct'13-Sept'15		Activity	Indicator	Target	Results
				Thrace)assumed once per 4 years	
1.7	NRL Proficiency Test Service	Contract with WRL for non- EU MS	Letter of agreement signed.	Two Rounds PTS. More than 10 territories participate annually	<ul style="list-style-type: none"> <li>• 10 territories 2013; 12 territories 2014</li> <li>• <b>Target exceeded</b></li> </ul>
2.1	Turkey neighbour hood FMD control	Value chain (Kick off); VACCINE strategy wkshop; WELNET network meeting; Participatory epidemiology; Contingency planning workshop		6 reports	<ul style="list-style-type: none"> <li>• 6 reports delivered</li> <li>• 143 people trained/met</li> <li>• <b>Target exceeded</b></li> </ul>
2.1	Turkey neighbour hood FMD control	Roadmap meetings	EuFMD experts attend annual meetings	2 EuFMD experts attend	<ul style="list-style-type: none"> <li>• 61 participants and 13 countries attended</li> <li>• <b>Target achieved</b></li> </ul>
2.2	South -east med. FMD	Annual Co- ordination Meeting	meeting report	2 reports available	<ul style="list-style-type: none"> <li>• 13 Reports available</li> <li>• <b>Target exceeded</b></li> </ul>
2.2	South -east med.FMD	PEPc Course- develop arabic Real-Time Training (in Turkey)	PEPc training material and report report from course	Decision taken to Train in a more cost-effective way, by in-country training workshops. Training in Turkey also occurred (Real time training June 2014 ; 15 participants) <b>Target achieved</b>	
2.2	South -east med. FMD	Egypt - National PCP progress			<ul style="list-style-type: none"> <li>• Mission report 31 March 2014</li> <li>• Consultative workshop on PCP-FMD, Cairo – Egypt</li> </ul>
2.2	South -east med. FMD	EARLN-FMD support (request from FAO) meeting	meeting report	2	<ul style="list-style-type: none"> <li>• Physical meeting - <b>Target not achieved.</b></li> <li>• Virtual (online) meetings held instead</li> </ul>
2.3	North Africa FMD	Real Time training course	report from course	1	<ul style="list-style-type: none"> <li>• Ntc18- august2014</li> <li>• <b>Target achieved</b></li> </ul>
2.3	North Africa FMD	Risk based surv. Epi network Lab network Surveillance NC PEPc Free-surv. training FMD Lab. Contingency E-learning	4 wshops/ 2 network meetings; PePc report from course; Report - lab results; Training material developed and made available	8 reports from courses/wshops  Participation in the monthly reporting (3 countries)	<ul style="list-style-type: none"> <li>• 10 reports delivered</li> <li>• <b>Target exceeded</b></li> </ul>
2.4	Surveillance networks	Support sample submission from neighbourhood risk regions	report of lab results from target countries	Routine (monthly) reporting from 3 surveillance networks and 4	This Component, its target and indicators were omitted from the final Action, became part of the Component 3.3 and individual Components 2.1, 2.2 and 2.3. Targets

<b>PILLAR- Comp Oct'13-Sept'15</b>		<b>Activity</b>	<b>Indicator</b>	<b>Target</b>	<b>Results</b>
				NRLs per network	la4gely met by monthly reports from each network, forming part of the Global Monthly Report.
3.1	<b>Monitoring FMD prog progress</b>	<b>STP and FMD WG SUPPORT</b>	Report on Global FMD control prog status and progress indicators every six months	Report covering at least 3 African and 2 Asian pools	No Global Report issued by decision of GF-TADS Working Group.
3.1	<b>Monitoring FMD program progress</b>	<b>WORKSHOPS</b>	Technical expert wkshops	Two technical reports	<ul style="list-style-type: none"> <li>• Mission to London 3-4 February 2014</li> <li>• E-training for PCP, RBSP, epidemiology and PEPC</li> <li>• <b>Target achieved</b></li> </ul>
3.2	<b>Develop pcg tools and application</b>	<b>PCP expert consultation meetings</b>	System established for expert consultations and review	Updated PCP Guidelines	<ul style="list-style-type: none"> <li>• Expert panel meeting on socio-economic impact for FMD (FAO and OIE) April 2015</li> <li>• PCP guidelines under review</li> <li>• PCP training July 2015 fao HQ</li> <li>• PCP training Nakuru august 2014</li> <li>• <b>Target achieved</b></li> </ul>
3.2	<b>Develop PCP tools and application</b>	<b>Training</b>	Training Materials developed, reviewed, online	Online training tool	• <b>Target achieved</b>
3.3	<b>Global FMD ref lab services</b>	<b>CONTRACT IAH</b>	Contract implemented for 2014 and 2015	Targets reached for submission/typing in FMD pools 3, 4 and 5, annual meeting	<p><b>Target achieved</b> for annual meetings, proficiency tests, overall numbers of samples tested, genotyped and vaccine matched.</p> <p><b>Specific targets achieved</b> for pool 3, <b>70% achieved</b> for pool 4, <b>not achieved</b> for pool 5.</p>

## Annex 4: Reports online

All the final reports of workshops are online; printing is only done for a selected number of workshops and participants (usually 30 copies at the most, except for the Open sessions: 100 copies).

Special Committee for Research and Programme development Modelling workshop (Frascati-It)	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/</a>
Thrace workshops	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/</a>
FAO-EUFMD/EC/OIE Tripartite	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/regional-FMD-meetings/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/regional-FMD-meetings/en/</a>
Remesa	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/regional-FMD-meetings/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/regional-FMD-meetings/en/</a>
Westeurasia	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/westeurasia-roadmap/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/westeurasia-roadmap/en/</a>
Real Time Training	<a href="https://euFMD.rvc.ac.uk/">https://euFMD.rvc.ac.uk/</a>
Simulation Exercise Balkans	<a href="http://www.fao.org/europe/news/detail-news/en/c/296021/">http://www.fao.org/europe/news/detail-news/en/c/296021/</a> (news coverage) <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/workshops/en/</a> (report)
Global monthly FMD reports	<a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/FMD-surveillance/situation-reports/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/FMD-surveillance/situation-reports/en/</a>
EuFMD statutory body meetings	41 <sup>st</sup> General Session 23-24 April 2015 <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/general-sessions/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/general-sessions/en/</a>
	90 <sup>th</sup> Executive Committee: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2016-90th-session/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2016-90th-session/en/</a>
	89 <sup>th</sup> Executive Committee: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2015-89th-session/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2015-89th-session/en/</a>
	88 <sup>th</sup> Executive Committee: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2014-88th-session/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2014-88th-session/en/</a>
	87 <sup>th</sup> Executive Committee: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2014-87th-session/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2014-87th-session/en/</a>
	86 <sup>th</sup> Executive Committee: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2013-86th-session/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/executive-committee/2013-86th-session/en/</a>
Quarterly Global FMD lab reports	Open Session October 2014: <a href="http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/research-group/2014-cavtat-croatia/en/">http://www.fao.org/ag/againfo/commissions/euFMD/commissions/euFMD-home/reports/research-group/2014-cavtat-croatia/en/</a>
	<a href="http://www.fao.org/fileadmin/user_upload/euFMD/Pirbright_reports/Jan-MarchOIE-FAO_FMD_Ref_Lab_Report_2016.pdf">http://www.fao.org/fileadmin/user_upload/euFMD/Pirbright_reports/Jan-MarchOIE-FAO_FMD_Ref_Lab_Report_2016.pdf</a>

## Annex 5: Letters of Agreement

### Contracts 2013- 2015 (over 10 000€)

Supplier	Description	Total Amount	Currency	Comp
ANSES	LFD project	15,000.00	EUR	1.5
CODA CERVA	Validating the Lumpy skin disease (LSD)	40,000.00	EUR	1.5
DEMA	Support in design, execution and evaluation of two multi-country simulation exercises	20,160.00	EUR	1.4
FVST	Support in design, execution and evaluation of two multi-country simulation exercises	20,160.00	EUR	1.4
Friedrich Loeffler Institut	In vitro and in vivo experiments	35,000.00	EUR	1.5
Friedrich Loeffler Institut	Modelling of FMD control strategies	49,977.00	EUR	1.5
Royal Veterinary College	Provision of FMD training courses	36'215 € 45,727.00	GBP Euro	1.1
Royal Veterinary College	Prototype Model for the Rapid Assessment of FMD Impact	25,436.00	EUR	1.2
The Pirbright Institut	Improving quality assurance along the FMD vaccine production and supply chain	32,256.12	EUR	1.5
The Pirbright Institut	World reference laboratory services in support of the FAO/OIE global FMD laboratory network	435'380	EUR	3.3
The Pirbright Institut	World reference laboratory services in support of the FAO/OIE global FMD laboratory network	19'000	EUR	1.5
The Pirbright Institut	Realising the potential of simple isothermal molecular tools for field diagnosis of FMD	50,539.00	EUR	1.5
University Wageningen	LOA LEI (Wageningen) - Socio-economic expertise in the preparation and facilitation of a workshop: "To vaccinate or not to vaccinate, using modelling to evaluate FMD control options"..	6'000	EUR	1.1
TOTAL per Component 1.1		€ 51,727.00		
Total Per Component 1.2		€ 25,436.00		
Total per Component 1.4		€ 40,320.00		
Total Per Component 1.5		€ 241,772.12		
Total Per Component 3.3		€ 435,380.00		
Total per III Pillars EEC 003		€ 794,635.12		