



Food and Agriculture
Organization of the
United Nations

eofmd
european commission for the
control of foot-and-mouth disease

ROME 17-18 APRIL 2019



Report

43RD GENERAL SESSION
OF THE EUROPEAN COMMISSION
FOR THE CONTROL OF
FOOT-AND-MOUTH DISEASE
(EuFMD)

Report

43RD GENERAL SESSION
OF THE EUROPEAN COMMISSION
FOR THE CONTROL OF
FOOT-AND-MOUTH DISEASE
(EuFMD)

Contents

Recommendations of the 43 rd General Session of the EuFMD Commission	4
Report.....	7
Item 1. Adoption of the Agenda.....	9
Item 2. Global Foot and Mouth Disease (FMD) surveillance report.....	9
Item 2. Progress of the Global FMD control strategy	11
Item 3 Transboundary disease risks in the European region.....	14
Item 4. Technical point 1: Modelling FMD, EuFMDis.....	19
Item 5. Technical point 2: On-farm biosecurity is crucial for controlling FMD outbreaks	21
Item 5. Technical point 3: How prepared are we?.....	23
Item 6. Technical point 4	25
Item 7. Report of the Executive Committee on the actions since the 42nd General Session.....	28
Item 7. Report of the Training Evaluation Group.....	29
Item 8. Proposed updating to the four-year Strategic Plan (2019-22)	31
Item 9. Information session - Current FMD and other transboundary diseases situation Turkey, Israel and Georgia.....	34
Item 10. Report on the status of FMD antigen and vaccine banks in the European neighbourhood.....	37
Item 11. Report of the Standing Technical Committee and its working groups	38
Item 12. Report of the Special Committee Biorisk Management; Minimum Standards for laboratory containment of foot-and-mouth disease virus and training planned.....	39
Item 13. Technical Committees and their functions in the upcoming biennium.....	41
Item 14. Financial Report, Budget and membership contributions biennium 2020-2021	42
Item 15. Election of the Executive Committee	43
Item 16. Recognitions for service	46
Item 17. Draft recommendations	47

Please note the Appendices are available online and as a separate document on the EuFMD website.

Recommendations of the 43rd General Session of the EuFMD Commission

Considering

1. The enormous economic consequences of even single FMD outbreaks in FMD free countries;
2. The risk of incursions posed by co-circulation of FMD, PPR, capripoxviruses and similar transboundary animal diseases in several parts of the European neighbourhood, and in much of sub-Saharan Africa, the Middle-East and Asia;
3. The recent repeated FMD incursions of FMD viruses from West Africa into North Africa, in 2017 and 2018 with epidemics continuing into 2019, and the diverse range of FMD viruses circulating in the eastern Mediterranean and West Eurasia eco-systems;
4. The progress made to improve virus intelligence on the strains circulating in West Africa over the past two years, but the concerning gaps in information from other regions, notably South Asia;
5. The scale of animal movements into the European neighbourhood that could bring with them the risk of FMD, PPR, and other FAST diseases, and the potential of risk mapping to better target surveillance for viruses circulating as a result of these risks;
6. The progress made by GF-TADs in the implementation of the Global Strategy for FMD over the past five years and the significance of FMD risk from the number of countries that remain in stage zero or one of PCP-FMD, and the importance of continued support to countries to develop national strategies which have appropriate FMD control plans;
7. The progress made to further develop and use an epidemiological simulation model known as EuFMDis as a decision-support tool for member states to assist preparedness and risk assessment, contingency planning and targeting of interventions;
8. Development of risk-based scoring systems such as Biocheck.Ugent[®], to evaluate the quality of on-farm biosecurity in a scientific and independent way that also enables assessment of the strength and weak points of the on-farm biosecurity, and that the Biocheck system has been used primarily as a self-assessment system but also adopted by some MS veterinary services as a more formal tool;
9. The need for sharing best practises and a comprehensive range of resources to cover the major elements required for emergency preparedness, the management of simulation exercises and for training;
10. The demand for support to national training programmes to better equip national trainers in provision of courses to update and train their staff, and ensure positive impact of the cascade training;
11. The findings of the evaluation of EuFMD training conducted by an independent expert committee in 2018;
12. That FMD and Similar Transboundary (FAST) diseases remain as global and inter-regional challenges and that the risk of introduction of FAST to Europe from North Africa, Middle East and West Eurasia remains very high;
13. The lack of “global vaccine security” as one of the most pressing issues in global risk management of FMD that affects the implementation of national control plans in endemic countries as well as epidemic control decisions in free countries.
14. That registration and effectiveness of new vaccines affect the application of vaccination in the emergency management of FMD and similar transboundary animal diseases;
15. The importance of the application of the Minimum Standards for laboratory containment of FMD virus, for prevention of escape of FMDV from laboratories responsible for diagnosis and vaccine production.

Acknowledges

The support of the European Commission (DG-SANTE) through the four-year Phase IV of the work programme of the Strategic Plan agreed in 2015, and the excellent working arrangements that have resulted in efficient and timely emergency responses to situations arising in the European neighbourhood.

Recognizes

1. That the control of FMD risk remains the primary focus of the Commission and that projects and activities undertaken by the Commission to control the risks of similar transboundary diseases also contribute to achieve the purposes of the Commission, as set forth in the Constitution.
2. Progress with the implementation of the current Strategic Plan and the positive development of planning processes with the World Organization for Animal Health (OIE) and with FAO on matters relating to the programme of the EuFMD in countries which are not members of the Commission, and in regard to EuFMD support of the GF-TADS Global FMD Control Strategy.

Endorses

1. The Strategic Plan (“HOLD-FAST”) for 2019-2023, with the final version to be amended to reflect the discussions under Item 8 of the Session;
2. The indicative work program (objectives, key indicators and expected outcomes) as outlined in the Strategic Plan, for further development into a full workplan proposal to be presented to the European Commission following the Session;
3. The revision to the Terms of Reference of the Standing Technical Committee, and the revised rules of procedure relating to filling places on the Committee at each Session;
4. The proposal to establish a Special Committee for Surveillance and Applied Research (SCSAR), and the development of a project for networking and applied research studies that address priorities as agreed with the Standing Technical Committee;
5. The technical update of the revised Minimum Standards proposed by the Special Committee for Biorisk Management (SCBRM) to Member States;
6. The proposal for the budget of the MTF/INT/011/MUL (Administrative Fund) for the forthcoming biennium;
7. The proposal that at each regular Session, the increase in contribution of the member states be linked to the consumer price index, as recorded by the OECD and in accordance with the standard formula and data proposed in the Budget paper (Item 14);
8. The proposed programme of work and budget for Emergency and Training Fund (MTF/INT/004/MUL) for the next biennium, to the end of 2021;
9. The list of six experts for the Standing Technical Committee, the list of centres of expertise for the Special Committee for Surveillance and Applied Research, and for the experts for the Special Committee for Biorisk Management.

Recommends

1. The Member States review the risk associated with the developing FMD situation in North Africa and that additional effort is made to promote FMD control in the region under REMESA, and develop a mechanism for assured emergency vaccine supply to mobilize vaccines without recourse to vital antigen reserves held on behalf of the member states;
2. The EuFMD to continue supporting the Member States on the preparedness for an effective use of emergency vaccination in the case of an outbreak, but broaden the support to consider similar transboundary diseases;
3. The EuFMD continue supporting Member States to identify and assess their level of emergency preparedness through simulation exercises and other tools, for FMD and similar transboundary diseases;
4. That the work programme developed in agreement with the EC has an evaluation undertaken at a mid-point or suitable timeframe to assist the management and Commission to make changes as may be required in good time;
5. The EuFMD explores continued development of the EUFMDis model to include additional EU countries, consider inclusion of additional pathogens, explore availability of national data, continue work to validate the model and communicate its outputs to policymakers;
6. The EuFMD continues to consider the application of existing biosecurity scoring frameworks in prevention, emergency preparedness and outbreak response;
7. The EuFMD implements the GET Prepared toolbox concept, supported by collaboration with Member States and other partners;
8. The EuFMD explores implementation of recommendations on quality assurance, impact assessment and certification of training, including the possibility of this being achieved through partnerships;
9. That a platform is established to better engage public and private sector stakeholders to engage upon issues affecting availability of effective vaccines for emergency responses to FAST diseases;
10. The continued development and delivery of joint initiatives with the OIE, including on the application of Public Private Partnerships in progressive control of priority diseases for GF-TADS such as FMD and PPR;
11. The Standing Technical Committee to meet as soon as possible to identify the optimum working arrangements to meet the expectations for their support to Executive Committee in the implementation of the new strategic plan;
12. Delivery of training on the application of the biorisk management standards for laboratories handling infectious FMD virus (Tier D) and under emergency situations (Tier C);
13. The EuFMD further develops the Pillar III work plan after discussions with GF-TADS management, relating to supporting and achieving a greater synergy between the GF-TADS FMD, PPR secretariats and in their work programmes, taking into consideration the potential contribution of training and expertise available from EuFMD;
14. The Executive Committee and the Secretariat to make every effort to find ways to increase the funding for research on FMD, exploring the possibility for national or other agencies to jointly fund research via the EuFMD-FAR fund or through other means;
15. The Executive Committee to review the benefits to the EuFMD of updating to the Constitution, including the benefits and conditions for associate or additional membership (Recommendation carried over from the 42nd Session).

Calls upon

The International community to recognize the impact of contagious animal diseases upon livelihoods and human health and to promote and support the regional co-ordination of FMD control as part of an integrated approach to control the most contagious and devastating TADS in Africa and Asia under the Global Strategies for FMD and PPR control.

REPORT

The 43rd General Session of the EuFMD Commission was held in Rome, at the headquarters of FAO, on the 17-18 April 2019. Delegates participated from 29 of the 39 Member States of the Commission, and official Observers from the European Commission (EC), the Food and Agriculture Organization (FAO), the World Organisation for Animal Health (OIE), and from Civil Society Organisations (CSO) participated in the two-day meeting.

The Session was opened by Dr Berhe Tekola, Director of the Animal Health Division, FAO. His address is given below.

“Honorable Delegates of the Member States; Dr Stone, Representative of the DG of the OIE; Dr Füssel, Head of the Delegation from DG-SANTE of the European Commission; Observers from FAO Member States from across the world, invited experts. As Director of the Livestock Division let me welcome you to Rome on behalf of the ADG of AG, Mr. Bukar Tijani, and the DG FAO, Mr. Graziano de Silva.

FAO has long ago established the legal possibility that member states make agreement with each other in specific treaties that have international obligations and are supportive to the mandate and priorities of FAO. One such example is the EuFMD Commission, established in 1954 by 6 MS and now with 39 MS. These article XIV bodies are governed by their members and this is the 43rd Session of the Commission and may be one of the most significant in its history. FAO has been honoured to host the Commission for over 65 years and to witness the many decisions and developments in this period, and the increasingly important contribution made by the Commission at the global level with its innovative training programmes and expertise. It is for the member states to decide on the policy and strategy for the coming years, and for FAO to respond to your decisions, and support as far as we can the Commission to develop in a way that serves your needs. As delegates from the Veterinary Services across Europe, I do not need to remind you of the disease threats in the European neighbourhood, which include PPR, Lumpy Skin disease, African swine fever as well as potential threats such as Rift valley fever. FAO has been investing funds in response to each of these crises, in Eastern Europe as well as North Africa and Mid-East, in the past two years. Colleagues, the repeated incursions of transboundary, emerging disease threats in our neighbourhood may affect our energy and confidence to make a difference and you may question what difference international action can make. **In this situation, there remains some good news – and always hope.** For the past 8 years, FMD cases have not occurred in the free countries of Europe – the longest period of freedom in the history of EuFMD. This freedom has occurred despite the serious epidemic situation around the European borders – so together, collectively, **something successful has happened – and your actions, our actions, have here some evidence of success.** I am tempted to conclude it is because of the **tireless work behind the scenes of many people** that Europe has not had a case of FMD in 8 years – a success built on a lot of hard work, partnerships, and systems. **Perhaps, Europe has been lucky, but at the least, it has had a Commission to keep reminding everyone of the risks.** That may have made the difference, but is only part of the story. Turning to the future, **FAO is very supportive to the proposal that the EuFMD Commission should contribute more broadly to TADS control in future.** There are many areas of synergy where the effort on FMD can spur greater control of other TADS. The strategic plan, as proposed, has our support. We believe the GF-TADS system for co-ordination of activities between FAO and OIE remains a good one and that under this system, we that the EuFMD activities can actively support the decisions taken at the GF-TADS management level or regional steering committees. In short, **there is NO overlap - GF-TADS NEEDS EuFMD** to play its full role and use its many capacities. Regarding the question of the need to change the Constitution, the opinion of the FAO Legal Council is that the policy change on the work programme comes first from the member states and comes in front of the process of updating of the Constitution - which can be addressed if needed at later Sessions. Do not be concerned on this point now. The decision is **therefore one for the Member States to make** and FAO will support you in what you decide at this Session. **I re-iterate that FAO supports the proposal and urges you to give it your full consideration.** “

Opening addresses were then given by Dr Stone for the OIE and Dr Füssel, for the EC.

Dr Stone of the OIE commended the EuFMD on activities of the last two years. He mentioned collaboration on training on the OIE codes and the Public-Private Partnership (PPP) training between the EuFMD and the OIE. He also pointed out the challenges of African Swine Fever (ASF) and other diseases that can affect food security as a whole. Dr Stone advised that the Tripartite (OIE/FAO/EuFMD) will need to focus on the urgent need to build on capacities of veterinary services. He then emphasised the importance for EuFMD to continue with its programme of high-quality training which is assisting to improve standards of FMD management. He strongly endorsed the HOLD-FAST strategy and the contribution the EuFMD could make to control of other TADs. Aligning work programmes (OIE/FAO/EuFMD) to ensure global framework for control of TADs was also mentioned.

Dr Füssel of the DGSANTE, emphasized that FMD remains priority of the European Commission and should continue to be so for the EuFMD. He mentioned that extension of the scope to other diseases is supportable where there are significant synergies and similarities. He brought attention to the financial constraints and the competing priorities that affect decisions on the EU contribution. He underlined to the Member States (MS) that they are the ones to own the Commission and added "It is yours to guide".

The three Pillars of the EuFMD



Item 1. Adoption of the Agenda

Dr Angot, Chairman of the EuFMD Commission, welcomed the representatives of Member States and introduced the Agenda (**Appendix 1**). The Agenda was adopted without change.

Item 2. Global Foot and Mouth Disease (FMD) surveillance report

*Documents provided: Monthly report on the FMD situation in March 2019 - EuFMD (**Appendix 2**); World Reference Laboratory (WRL) report (**Appendix 3**).*

Document provided: Summary paper including Key Messages

Key Messages

- Recent concerns in Europe have been raised by trans-Saharan movements of two serotypes into North Africa.
- The WRLFMD (and partner laboratories within the OIE/FAO FMD Laboratory Network monitors the performance of FMD vaccines and provides information to support FMD control programmes within the Regional Roadmaps. A new initiative, funded under the OIE Global fund, will develop capacity for independent assessment of FMDV vaccines in Africa (at AU-PANVAC, Ethiopia).
- With support of EuFMD, WRLFMD also works to improve the diagnostic capacity through training missions, eLearning modules and proficiency-testing schemes for FMD Reference Laboratories.
- WRLFMD (Pirbright) provides the secretariat of the global Network of OIE and FAO FMD Reference Laboratories, to support global surveillance of FMD and the global GF-TADS Strategy. Since 2013, it has received financing support under Component 3.3 of the EC/EuFMD Programme that partially funds these global services.

The report of the World Reference Laboratory (WRL) for FMD was provided by Dr Don King, Head of the FAO-WRL for FMD at The Pirbright Institute, UK (**Appendix 3**).

The WRL was first recognized by FAO/EuFMD in 1958, and has provided FMD virus typing and other services to the Commission ever since. In 2004, the role was extended when the OIE/FAO FMD Laboratory Network (<https://www.foot-and-mouth.org/>) was established as a mechanism to exchange laboratory and epidemiology data, as well as to harmonize and improve the quality of diagnostic testing carried out by international and national FMD laboratories. The WRL work in support of GF-TADS Global Strategy was recognized with financial support from the EC from 2013, channelled via the EuFMD. A key function of the Network is to monitor the spread of viral lineages that are maintained in the different endemic pools across the world, and continuously review the risks to livestock industries in countries that are free of FMD (with or without vaccination). The guidance on principle viral lineage risks and the vaccine priorities to cover the risk are indicated in the figure below (output from the PRAGMATIST tool; further discussed under Item 10).

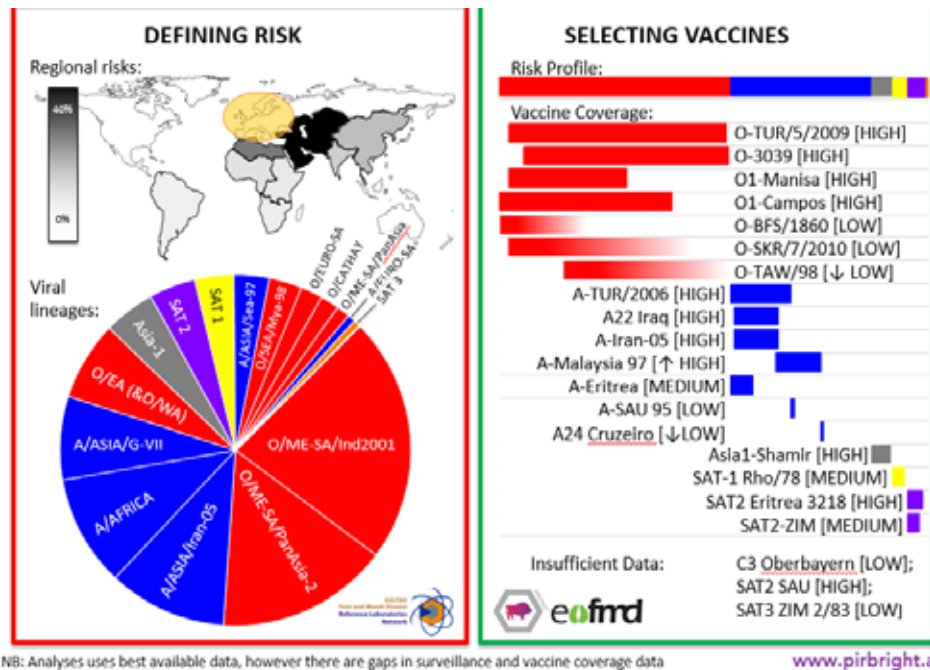
During 2017-19, particular attention has been focused on the emerging situation in North Africa where outbreaks due to serotypes O and A have been reported. Current outbreaks in Algeria, Tunisia and Morocco have been characterized as belonging to the O/EA-3 topotype, most closely related to viruses circulating in West African countries (including Burkina Faso, The Gambia, Guinea, Mauritania, Senegal and Sierra Leone) where there appears to have been upsurge in cases due to FMD. Taken together with the outbreaks in 2017 that occurred in Algeria and Tunisia due to A/AFRICA/G-IV, the emergence of these new FMD lineages in Maghreb is a significant change of epidemiological status. This change may substantiate new trans-Saharan connections between North and West Africa which raise the onward risks to FMD-free countries in Europe.

Another example of a viral lineage which is now spreading widely is represented by O/ME-SA/Ind-2001, which has "escaped" on many occasions beyond its normal geographical range in South Asian countries (Pool 2), to becoming an important endemic virus lineage in the Gulf States of the Middle East (Pool 3) and Southeast/East Asia (Pool 1). This lineage has been divided into two sub-lineages (O/ME-SA/Ind-2001d and O/ME-SA/Ind-2001e). O/ME-SA/Ind-2001e appears to now dominate the situation in Pool 1 where the O/ME-SA/Ind-2001d has not been reported since 2015. Other recent trans-pool FMD virus movements out of Pool 2 include the spread of A/ASIA/G-VII to countries to the West, and serotype Asia 1 causing outbreaks in Myanmar in 2017. In Pakistan, a new serotype O antigenic variant has been observed. It has very poor antigenic match with commercial vaccines from MSD and Boehringer-

Ingelheim. Although only two isolates with these properties have been detected to date (in the Punjab), the spread of this lineage needs to be monitored closely especially in cases where there is reported vaccination failure in the field.

Together, these events highlight the ease by which new FMDV lineage can emerge and cross international boundaries and emphasize the importance of the work undertaken by OIE/FAO FMD Laboratory Network to continuously monitor the global epidemiology of FMD.

Vaccine Antigen Prioritisation: Europe



The Chairman thanked Dr King for the report and for the services provided by the WRL.

Discussion

The representative of Denmark asked about the reason for new long distance movements of FMD virus. Dr King mentioned several recent movements appeared to involve live animals, but also others, where livestock products may be the mechanism, and others again where people may be the mechanical vector. He underlined the high rate of people moving between the Middle East and South Asia, such as farm workers, but also the difficulty of attributing entry mechanisms. In addition, he emphasised on mass migration of people from Sub-Saharan to North Africa. These are all considered potential risks but they need to be quantified and there should be increased focus on trying to define the relative importance of these routes.

Dr Füssel (DGSANTE) stated that these risk patterns should be looked in to. FMD seems to move north in South East Asia but ASF has moved south. The entry via livestock products into areas without pigs may be occurring but unnoticed as pigs provide a “release” risk. For example South East Asia has a high pig population and may be expected to be at risk of ASF but also exotic FMDV, compared to the Middle-East for instance. Therefore, these reports from islands or regions where entry has occurred via pigs, may indicate the level of risks associated with livestock products from endemic regions, which could be a source for Europe if introduced. The EuFMD should follow up these risks in more detail. Similar movements from the East to the West, on PPR, may be important. He mentioned the need to combine sources of information to map out some more how key diseases spread globally – not just the potential entry to Europe, and to not forget how close the European Union is to these areas.

Item 2. Progress of the Global FMD control strategy

Document provided: Summary paper including Key Messages

Presentation: **Appendix 4**

Key Messages

-The global control strategy was developed in 2012 with the aim to reduce the burden of FMD in endemic countries and protect the investment of free countries. FMD has a significant impact on poverty and livelihoods of millions where livestock play an important economic role and offer quality nutrition.

-The global strategy has been implemented gradually since its development. By 2018, 79 countries in virus pools 2-6, are currently engaged and were assessed for their success and challenges in FMD control. Out of 79 countries, nine countries/zones achieved OIE status, 29, 26 and four countries reached PCP stages 1, 2 and 3, respectively. Only nine countries stayed temporarily behind in PCP stage 0.

-FMD- endemic countries need to enhance capacity to control FMD through (i) conducting FMD risk assessment; (ii) strengthening laboratory capacities to improve monitoring of the disease and reporting of outbreaks (iii) strengthening Veterinary infrastructure through legal framework support, and (iv) promoting public awareness on impact of FMD and training of veterinary personnel on deployment of advanced tools for the gradual reduction of endemic disease incidence.

-The PCP guidelines and principles were recently reviewed and updated. The second PCP edition depicts the streamline advancement from the PCP stage to OIE status, and the use of the fast-track scheme, if eligible.

-FMD does not recognize borders, and its control requires a harmonized regional effort to understand animal movement and the associated risk along with the adaptation of the national strategy within the region (Asia and Africa). This effort started in West Africa and Southern Asia.

-OIE-FAO reference laboratory network is critical to coordinate, harmonize and enhance the quality of the global diagnostics that is pivotal in the implementation of the national control strategy. Such support important to re-invigorate regional laboratory networks, with better linkages to epidemiology networks, to ensure better technical expertise development at regional levels.

-As more countries advance in FMD control, the need for technical expertise in vaccine and vaccination is rising. The guideline manual for FMD vaccine and post vaccination monitoring has been vital in training and is being translated to Arabic, Russian and French.

The progress report was presented by Samia Metwally (FAO) and Matthew Stone (DDG-OIE), who provided a comprehensive report on the activities at Global and Regional levels under GF-TADS, and the priorities and progress of the GF-TADS Working Group. The speakers thanked the EuFMD for its support to the Global Strategy which had been effective and high impact.

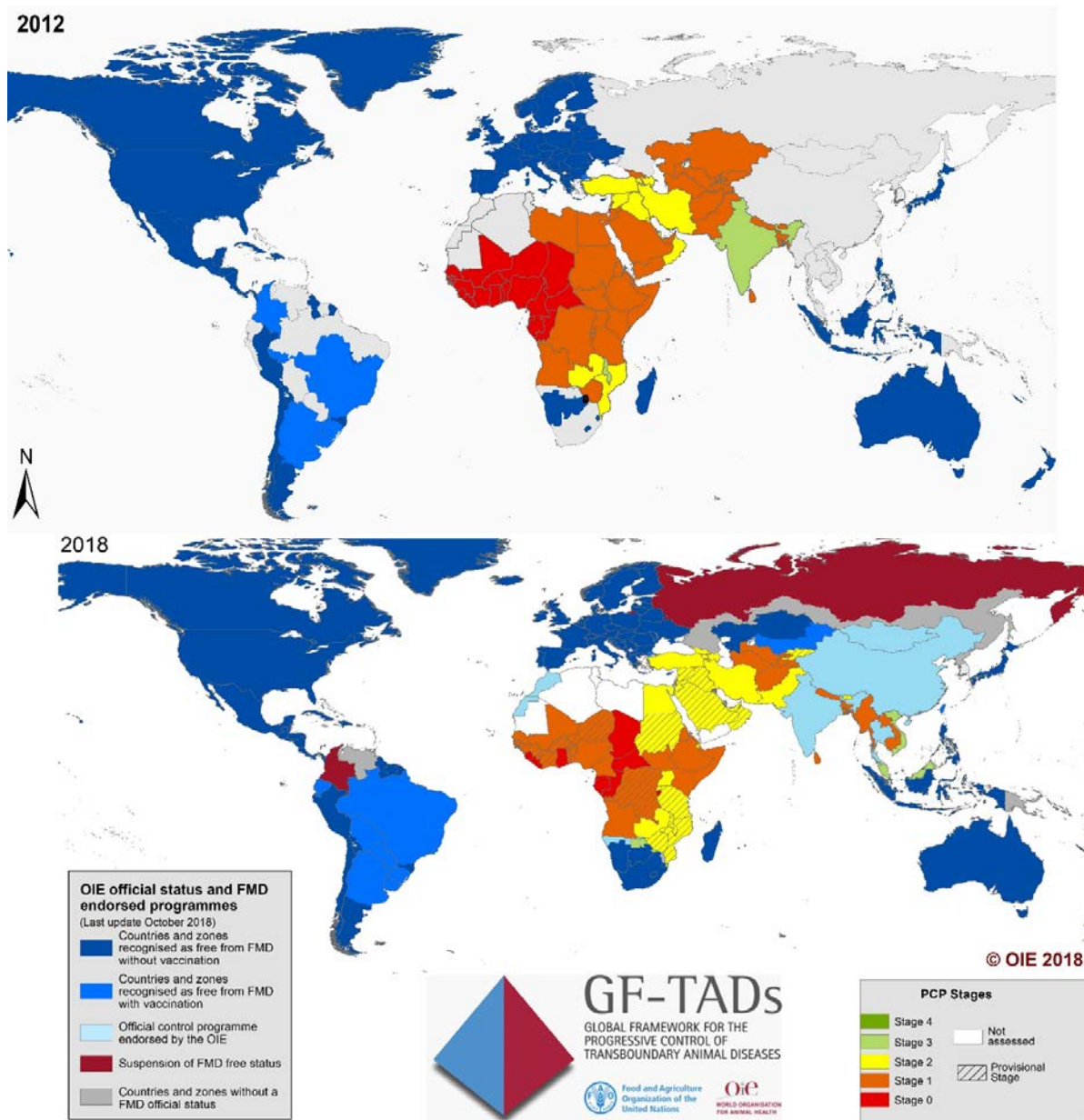
Each speaker also highlighted relevant specific actions of FAO and OIE under their specific mandates.

Significant progress has been made since the 42nd General Session of the EuFMD in 2017, in technical guiding documents and tools (revised, 2nd Edition of the PCP-FMD, PCP-support officers system (PSO), delivery of multiple Roadmap meetings and e-learning) that were achieved in collaboration with and support from, the EuFMD. To improve the process of PCP assessment at national level, and global stage endorsement, new tools include a updated self-assessment questionnaire for PCP assessment, development of the online self-assessment tool, post vaccination monitoring guidelines and others. Support to countries is on rise especially relating to preparation of control plans (for entry into Stages 2 and 3).

Further, since the vision and action plan of the GF-TADS Working Group for 2019-20 was approved by the GF-TADS management committee, the partners are agreed at the highest level on what support from EuFMD they desire. They trust this can be provided to support implementation.

Evolution of FMD global situation between 2012 and December 2018

OIE official FMD-free status, endorsed national official control programme for FMD and PCP stages



Dr Piergiuseppe Facelli, GF-TADS Global Secretariat highlighted that the GF-TADS WG on FMD is undertaking important work. He thanked the EuFMD for its strong organisation and level of delivery, which has helped greatly with improved communication of GF-TADS actions on FMD.

Discussion followed as to why the only countries without PCP status are in North Africa and the relevant REMESA actions. It was mentioned that these countries were not in a Roadmap process, but had previously been seeking OIE

endorsement of their control plans or recognized freedom, until incursions of FMD occurred, with a reversal of progress in the past five years. As the PCP-FMD is an integrated pathway from GF-TADS to OIE status, it now follows that countries who lose their OIE endorsed control programme should be considered to be in the PCP pathway. This may also assist them to re-establish the national capacity for control.

Conclusions

1. There has been significant progress made by GF-TADS in the implementation of the Global Strategy for FMD over the past two years, and there is evidence that the support given to the GF-TADS by EuFMD is appreciated and is proving to be effective.
2. There remain a significant number of countries in PCP stage zero or one of PCP-FMD, in West and Central Africa, which therefore will continue to be a region of concern and a potential long term source of infection for North Africa and Europe.
3. The GF-TADS partners are encouraged to ensure that countries in North Africa develop national FMD control programmes that meet the requirements for recognition by GF-TADS or OIE, according to their stage.
4. Given that the OIE Code and Manual chapters relating to FMD and other similar diseases continue to develop, further collaboration between EuFMD and OIE in relation to training programmes could assist to ensure better understanding and application of the chapters to utilise developments in emergency situations and reduce the risks in international trade.

Item 3 Transboundary disease risks in the European region
Situation report, co-ordination arrangement and priorities for future actions to reduce risk

Document provided: Summary paper including Key Messages

*Presentation: **Appendix 5***

Key message

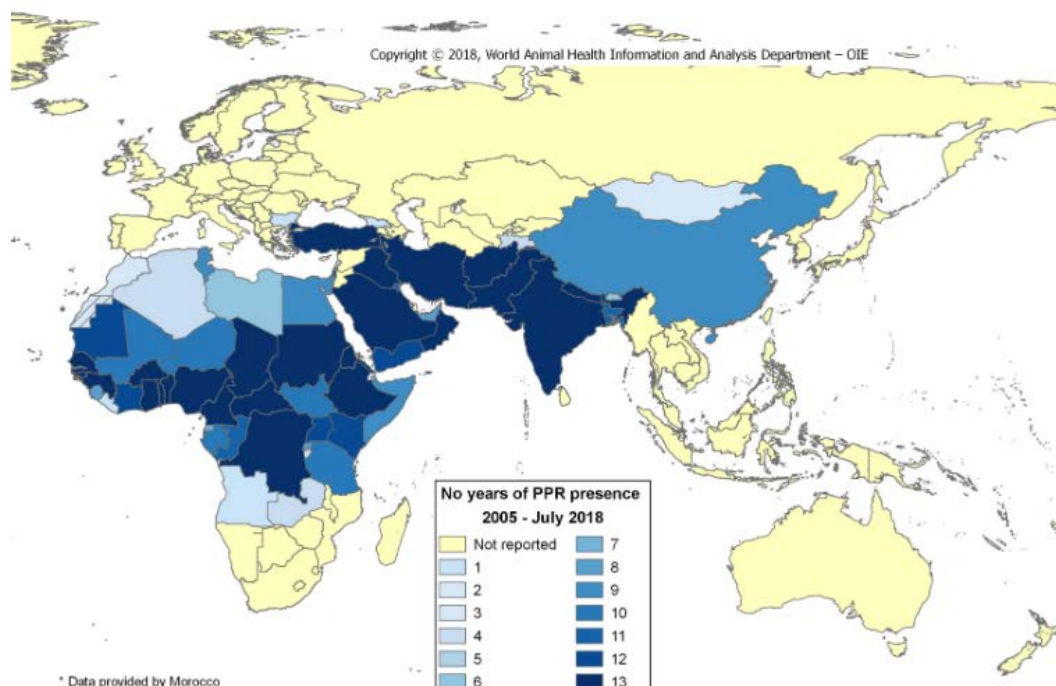
- The presence and regular re-occurrence of Foot and Mouth Disease and Similar Transboundary Animal Diseases (FAST) in countries neighbouring to European borders represents a constant risk of introduction and FAST spread into Europe. Actions aimed at improving the surveillance and control in European neighbourhood can reduce the risk and provide more timely information to risk managers.
- FMD is present in the European neighbourhood with different serotypes and lineages circulating. The increased animal movements driven by seasonality, climatic conditions, social and economic factors enhance the risk of FMD spreading towards EU borders, as demonstrated by the genotyping results of the isolates delivered to international reference laboratories from different regions.
- Improvements have been recognized in countries of South East Europe and East Mediterranean that have tackled with the PCP. The instability of some countries such as Libya and Syria remains a problem connected to the reduced capacity of FAST control and increased animal mobility across the borders with improved risk for the regions and beyond.
- North Africa has been affected by different FMD serotypes and lineages in the recent years that showed trans-Saharan connections between North and West Africa and increased risk for Europe. The situation in Algeria has been recently complicated by the co-circulation of Peste des Petits Ruminants.
- Implementation of vaccine control strategies for LSD and PPR in the European neighbourhood have contributed to improve the control of the diseases that still represent a threats for free European countries as showed by the events occurred in the recent years in Bulgaria, Greece and in the Balkans.
- Results of modelling studies considering different factors showed that sustained Rift Valley Fever transmission outside the endemic regions (e.g. in North Africa and South East Mediterranean) is real if introduction events coincide with optimal conditions.
- There has been increased frequency of epizootics of Bovine Ephemeral Fever in Middle East during the past 20 years and it will remain a threat with the potential to cause significant economic losses in Turkey, Middle East and also European countries.
- Early detection systems and improved regional expertise in epidemiology and laboratory diagnosis together with increased availability of vaccines and assessment of their performance can improve the capacity to FAST detection and better response.

Dr Rosso provided the presentation on the regional risk situation (**Appendix 5**). The summary paper and presentation showed that the presence and regular re-occurrence of Foot and Mouth Disease and Similar Transboundary Animal Diseases (FAST) in countries neighbouring the European borders, represent a constant risk for introduction and FAST spread into Europe. Actions aimed at improving the surveillance and control in European neighbourhood can reduce the probability of FAST spreading towards European borders. Furthermore, the constant monitoring of the epidemiological situation can provide relevant risk information and contribute to increase awareness on major animal disease threats.

He highlighted the following:

- Foot and Mouth Disease (FMD)
 - o Implemented control strategies have contributed to reduce the seroprevalence and number of outbreaks (382 outbreaks detected in Turkey in 2018 with only one serotype circulating and no outbreaks in Transcaucasus countries and Turkish Thrace). More than 900 outbreaks still occurred in the I.R of Iran in 2018 with three serotypes circulating (A, O, Asia 1), thus presenting risks to Turkey and the Transcaucasus countries.

- A review of the recent epidemic history in the South-East Mediterranean showed there is a frequent exposure to strains from West Eurasia and North –East Africa (in Egypt a co-circulation of serotypes A, O and SAT 2).
 - North Africa has been a major concern in the past and current years with epidemics of FMD caused by different serotypes (O/ME-SA/Ind-2001 in 2014-2015, A/AFRICA/GIV in 2017, O/EA-3 in 2018-2019), showing the constant risk of introduction of new serotypes and strains in the region from different origin. The FMDV genotype O/EA-3, which occurred more recently in North Africa and particularly in Algeria and Tunisia in 2018 and in Morocco in 2019, has been recognized to be similar to the strains identified in West Africa (Guinea, Gambia, Senegal, Mauritania, Cameroon), with a clear epidemiological link between the two regions. The FMD situation in North Africa has been complicated by the co-circulation of PPR virus in Algeria with problems for differential diagnosis in the field and confirmation in the laboratories.
- Peste des Petits Ruminants
- PPR was recorded in most African countries from North Africa to Tanzania, and in nearly all Middle Eastern countries and in Turkey. The vaccination campaigns implemented in the recent years in European neighbouring regions and the development of National Strategies to progress in the control of the disease, has contributed to the reduction of clinical cases and number of outbreaks detected. The consistent small ruminant population and the intense animal movements represent a constant risk for reoccurrence of the disease in many countries.
 - The most likely pathway to introduce PPR into Europe has been recognized to be through animal movements from infected areas mainly by the illegal transport of infected animals. Of less importance is the introduction of PPRV via fomites into the EU, which is considered to be unlikely (EFSA, Scientific Opinion 2015).

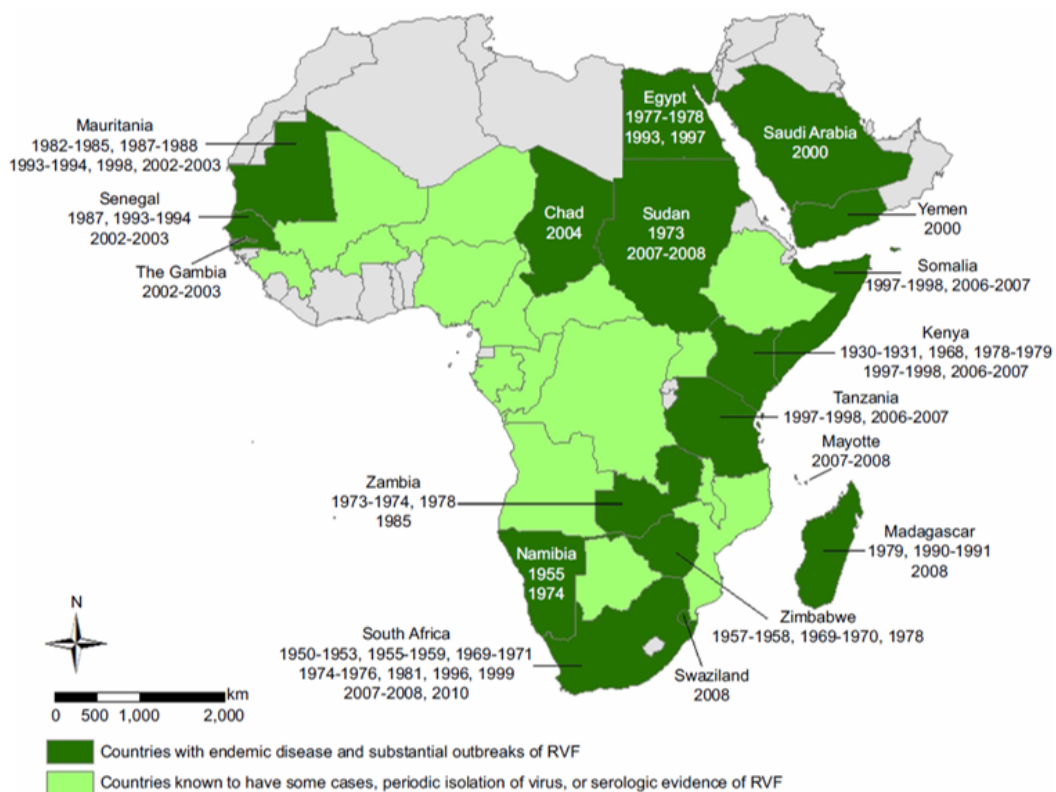


Source: OIE, 2018

- Rift Valley Fever

Recent studies indicated that sustained virus transmission risk outside the endemic regions (e.g. in North Africa and South East Mediterranean) is concrete, if introduction events coincide with optimal conditions. Attention was drawn to positive serology findings from southern Morocco (2009), Tunisia (2014). The evidence of RVFV activity in countries bordering the Southern part of Libya supports the hypothesis of a continuous risk of introduction of RVFV through animals imported from endemic neighbour countries (A.Mahmoud et al., 2018). Egypt has been affected by RVF on multiple occasions, with a main risk of RVFV introduction is posed by the continuous flow of large number of camels coming from Sudan.

Geographical distribution of Rift Valley fever virus

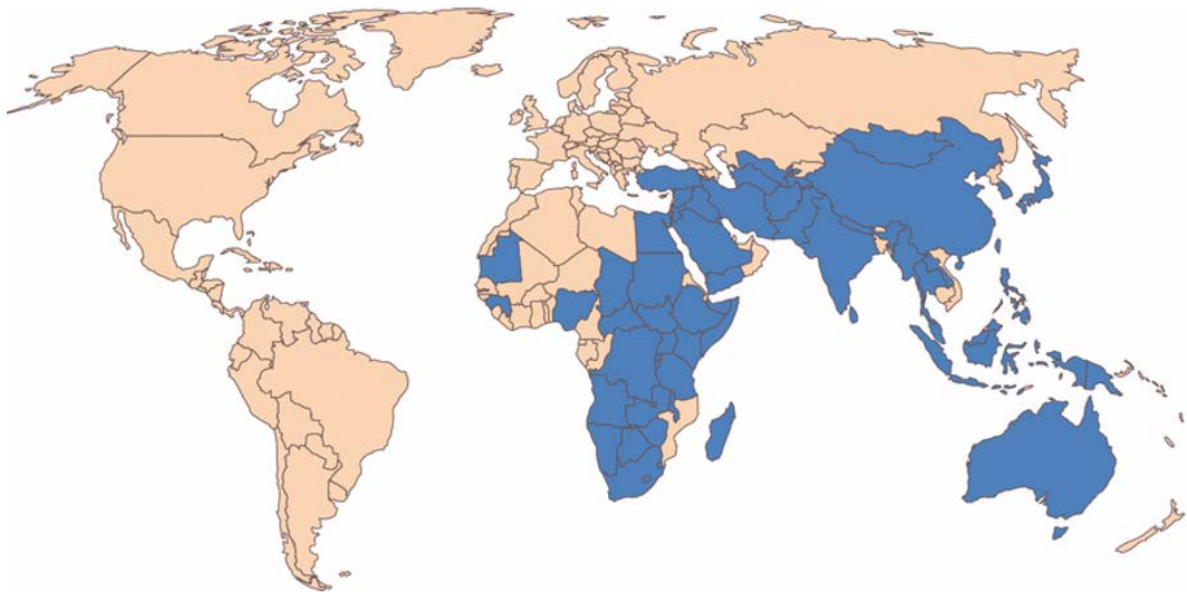


Source: Al Rolin et al 2013

- Bovine Ephemeral Fever (BEF)

BEF risk to Europe must be considered on the basis of the increased frequency of epizootics of BEF in the Middle East during the past 20 years, and the severity of impacts in Israel. Several observations suggest there may be a connection between the outbreaks which have occurred simultaneously in Israel, Egypt and Saudi Arabia in 1990, in Turkey, Israel and Egypt in 1999–2000, in Egypt and Israel in 2004, and in Turkey and Israel in 2008. Considering the presence of vectors responsible for the transmission of BEFV and the potential origin of the epizootic from different regions, BEFV infection will remain a threat with the potential to cause significant economic losses in Turkey, the Middle East and European countries.

Known geographical occurrence of BEF



Source: Walker and Klement, 2015)

- Lumpy skin disease

The extension of LSD to the Balkans in 2015-16 was a major animal health matter after an incursion in Northern Israel in 2012 led to regional spread involving Turkey in 2013. In 2018, no lumpy skin disease (LSD) outbreaks were reported in the Balkan region, after the decline reported in 2017 (385) compared to 2016 (7,483). This confirms the effectiveness of the vaccination campaign based on the LSD homologous vaccine strain, which continued throughout 2018 with over 2.5 million animals vaccinated, keeping the mean vaccination coverage above 70% (EFSA, 2019). The situation for Transcaucasus/Russian Federation remains of concern, as in 2018, LSD outbreaks were reported in Russian Federation (63 outbreaks), Turkey (51 outbreaks in Anatolia) and Georgia (6 outbreaks).

- Sheep and goat pox

Historically, the global distribution of SPP and GTP has been wider than LSD. The disease is known to be endemic in the region of North Africa (Morocco, Algeria, Tunisia and Libya), Middle East, including Egypt, Iran, Afghanistan, Turkey, Iraq and the Indian subcontinent with specific features in each country.

188 SGP outbreaks were reported in Turkey in 2018, but none in Thrace. The last SGP outbreak in Turkish Thrace was reported in 2017. However, some of the SGP outbreaks are in the coastal regions bordering the Greek Islands. The last SGP outbreak in Greece was reported at Island Lesbos in January 2018.

An integrated approach for FAST risk based surveillance and control in European neighbourhood and availability of timely risk information to risk managers is needed, and this will also require an increased capacity to early detect and promptly react to FAST incursion and circulation. Several FAST diseases are vector borne and there are few options to prevent spread except for emergency vaccination campaigns, and in this regard much more attention is needed to address the lack of suitable vaccines for several of the FAST diseases, such as RVF and BEF.

Discussion

The President thanked Dr Rosso for the comprehensive review which highlighted the complexity of the risks to member states from the situation in the near neighbourhood. The situation is “FAST” and changing as a result of insecurity and climate change.

Dr Füssel mentioned that this talk demonstrated risks and synergies in understanding preparedness for vaccination, for example. He mentioned that Lumpy Skin Disease (LSD) programmes could provide information to those for FMD. He added that these diseases need to be looked into together, to learn from the situation about disease movement and entry pathways. Dr Füssel concluded by stating that understanding the introduction of Sheep and Goat Pox (SGP) can be a lesson to learn for an FMD incursion, therefore there are synergies in understanding risk to assist the Member States.

Item 4. Technical point 1: Modelling FMD, EuFMDiS

Document provided: Summary paper including Key Messages

Presentation: **Appendix 6**

EuFMDiS brochure: **Appendix 7**

Key messages

- Europe remains vulnerable for TAD incursions, which have a high impact on livestock production. Well-developed contingency plans are needed for countries to be prepared for mitigating this risk. Simulation models are best placed to test this preparedness
- EuFMDiS is a powerful and easy-to-use tool that simulates FMD spread within and between countries, allows easy click-on configuration of numerous control and scenario options and provides real-time display and reporting of outbreak attributes.
- EuFMDiS provides high value for EU-wide contingency planning as it models spread, impact, success of control measures, and availability of resources at a multi-country level.
- Contribute to Europe-wide systematic support to risk assessment, contingency planning and targeting of interventions through modelling of national and regional control measures for FAST diseases.
- It would be an opportunity to further develop EuFMDiS to model FMD and transboundary diseases at European scale.

Dr Koen Mintiens, EuFMD, presented the progress made to develop the “European Foot-and-Mouth Disease Spread Model – EuFMDiS” to assist countries with improving or testing their preparedness for controlling FMD-outbreaks. EuFMDiS is a multi-country extension of the Australian Animal Disease Model (AADiS) (Bradhurst et al 2015¹), and is a powerful tool which takes all features and components of FMD outbreak control into consideration and allows estimating the impact of various control options. It was developed with the collaboration of seven pilot countries in South-East Europe (Austria, Bulgaria, Croatia, Hungary, Italy, Romania, and Slovenia) and has been prototyped for these countries. In addition, Spain and the Republic of Ireland are currently working on the collection of data to adapt the model to their national context and some other countries, such as North Macedonia, have expressed their intention to join EuFMDiS. Presentations of the EuFMDiS model at the EuFMD 2018 Open Session and to the European Union (EU) Working Party of Chief Veterinary Officers, received considerable interest. Several additional countries are now considering to request national EuFMDiS versions.

Marko Potocnik, Slovenia, reported -via AdobeConnect- of a study using EuFMDiS to compare the use of emergency vaccination with applying preventive culling, while the time until first detection of infection was considered. Several output variables (e.g. number of infected holdings, duration of control, control costs, animals vaccinated or culled) and scoring approaches were considered to describe the extent of the outbreak and to identify to the ‘best solution’ for control. In conclusion of the study, the importance of early detection and increasing of cost proportionally with the duration of the outbreak was stressed.

EuFMDiS has been used as a training tool in a recent EuFMD workshop "Putting vaccination into practice". Consultations with current and potential users has identified areas for further EuFMDiS development and application. A ‘EuFMDiS Advisory Group’ was established to advise on the strategy and objectives for EuFMDiS within the 2019-2023 EuFMD workplan. The group identified priorities for development within the FMD context, such as additional spread pathways (seasonal common grazing on pasture) and trade through markets. Location of rendering plants and slaughterhouses need to be specified and considered for disease spread. The impact of implementing additional on-farm biosecurity measures on disease spread needs to be modelled. The effect of the different disease control options on animal welfare need to be assessed and estimated. The costs related to post-outbreak

¹ Bradhurst R.A., Roche S.E., East I.J., Kwan P. and Garner M.G. (2015). A hybrid modelling approach to simulating foot-and-mouth disease outbreaks in Australian livestock. *Frontiers in Environmental Science*, 3(17). doi:10.3389/fenvs.2015.00017

management need to be evaluated. The risk for disease spread from, to and within susceptible wildlife populations needs to be modelled. The EuFMDiS model also has scope for extension to simulating additional FAST diseases. In summary EuFMDiS has a potentially very high worth for use in EU-wide contingency planning, even if not all countries participate at a full level. The value is both for the national and regional application, potentially contributing to a Europe-wide systematic support to risk assessment, contingency planning and targeting of interventions through modelling of national and regional control measures for FAST diseases.

Discussion

The President commented on the usefulness of the EuFMDiS model, which by being a multi-country model was already a unique tool for Europe, even if limited to seven countries at this point. He asked for remarks on further development, especially regarding extension to other countries and diseases.

Discussion followed with a consensus that such models are extremely useful as they estimate resources needed, predict farm visits required per day and other details. A Danish model already provides this and it would be positive if EuFMDiS could assist to achieve this for other countries. Professor Stark indicated Switzerland is motivated to engage and use the model but would like to see other diseases included, and were queried if the data collection, is a substantial investment. Professor Stark further asked about contacts with EFSA and was told that meetings had been implemented in an effort to align projects, particularly with data collection. Professor Conraths, Germany, mentioned their use a modified version of the Danish model.

A process of validation was being followed for EuFMDiS, to be completed by August 2019. Matthew Stone, DDG-OIE suggested that connecting modellers with policy-makers is important, and that policy-makers need a strong validation process. He also mentioned that the AADIS model had been compared under the Quads (Australia, Canada, New Zealand and United States of America) work with a number of EU, and that the comparison process can be an important part of validation. Slovenia's representative thanked EuFMD for the support to develop the model, which had already proven useful. The representative of the UK added that the key is understanding the assumptions in the model and communication with policy-makers. The comparison of models helps understand the different data available but sometimes, she remarked, the best model is the one you understand most. There is also interest from the UK in the use of TRACES data.

Conclusion

1. The development of the EuFMDiS model, for national use by the seven pilot countries and as a tool for simulating regional spread in South-Eastern Europe, is of real significance.
2. The tool has potential for extension to a Europe-wide model for FMD, and for simulating other FAST diseases. The continued development of the tool and support to adaptation to other MS is merited.
3. The recommendations of the advisory group on EuFMDiS are noted and every effort should be made to support the proposed priorities for EuFMDiS development in order to increase its utility to contingency planners, especially those in the major livestock trading countries in northern Europe.

Item 5. Technical point 2: On-farm biosecurity is crucial for controlling FMD outbreaks

Document provided: Summary paper including Key Messages

Presentation: **Appendix 8**

Key message

- Enhancing biosecurity is crucial for both preventing and controlling FMD-infections.
- Farmers who invest in enhanced on-farm biosecurity, could avoid severe control measures in the phase of an epidemic.
- The biocheck.ugent® scoring tool allows to quantify the level of biosecurity in pig and cattle herds.
- By means of this scoring system, the effect of enhanced biosecurity measures on the disease transmission risk can be simulated.
- Such simulation scenarios would allow to determine minimal biosecurity levels that may allow farms to avoid severe control measures.

This item was presented by Professor Dewulf (University of Ghent; **Appendix 8**), who drew attention to the potential ways that the better estimation of biosecurity at farm level could assist before and during an outbreak of FMD. Information generated by users of the Biocheck.Ugent®, a risk-based scoring system, is already substantial and through specific estimations relating to FMD transmission pathways, parameters for modelling the impact of biosecurity differences between farms on spread in the “silent spread” period and during control operations could be obtained. This development offers a number of potential new avenues for exploring, if high biosecurity farms might be treated differently in restrictions, without loss of control. This might be an important avenue to explore and lead to a better balance between disease control, animal welfare and business continuity in emergency situations.

Discussion

The President commended the speaker on the progress made, which has a relevance not only for FMD but for a range of FAST diseases. Dr Borrello (Italy), stated that animal welfare issues and use of drugs need consideration and perhaps should be included in wider assessment system.

The Executive Secretary commented on the validation of the self-assessed biosecurity scores. For application to movement management in emergencies, it would be important to have sufficient external evaluation of biosecurity. This is currently used mainly as a tool for farm advisors, but Ireland has adopted the Biocheck system officially, as has Finland in relation to ASF threat and other MS are thinking of adopting it officially. The advantage is that it is not so difficult to validate, through a farm visit.

Discussion followed on the importance of open livestock systems, and the balance between animal welfare and the biosecurity issues of open system. The speaker replied that cattle systems are usually much lower rated on biosecurity than pigs, so there is more room for improvement for the cattle sector. In relation to animal welfare, there can be contradictions between biosecurity and welfare, and a compromise is needed, for which the tool may assist.

The collation of country data was also discussed, as countries are sensitive about indexing of data – it being asked, is there security in this system to stop the data being used in the wrong way? This was not directly answered, although effort is made to distinguish real farms and exercise data in the database. As a voluntary tool, it was stated that there is little incentive to cheat, whereas if it were a government-controlled system, this could be different. The presenter stated In Ireland and Finland, there are no major changes seen, in the way responses to the questionnaire are given, when moving to official use of the tool.

The representative of Finland mentioned that all their pig farms should apply Biocheck this year, as an initiative of industry, supported by the government. Belgium’s representative commented that in the framework of raising

awareness for ASF, they plan to make the use of Biocheck compulsory in Belgium. It would be filled out by farmers and veterinarians and it might be expected that people overstate their level of biosecurity. The result should give a good overview of how well biosecurity is applied in the pig industry.

Dr Sumption mentioned that, in 2015, the 41st General Session of the EuFMD included a presentation on business continuity- how to maintain farm business activities during an outbreak. The development of the use of Biocheck is in line with this, considering if livestock and product movements might be different for farms at different levels of biosecurity, without loss of control; modelling should assist to identify when this may be the case.

Dr Füssel mentioned that this is significant and very relevant to work in the European Commission on the Animal Health Law. He asked about the internal biosecurity air conditioning systems, and was surprised about the high biosecurity weighting given to semen.

Conclusion

1. The development and wide application of the biosecurity scoring system at farm level at a voluntary basis or as part of national schemes, has to provide data for better understanding of the range of farm biosecurity differences that can contribute to FMD spread between holdings, during a silent spread period or after confirmation of outbreaks.
2. Efforts to model the impact of these difference in biosecurity are called for, as is to explore the potential for different restrictions on holdings at different biosecurity levels, on disease management and on business continuity in outbreak situations.

Item 5. Technical point 3: How prepared are we?**Towards a framework for better planning and testing of emergency preparedness**

Document provided: Summary paper including Key Messages

*Presentation: **Appendix 9***

Key Messages

- Following a review of the Get Prepared concept, the EuFMD propose to update the concept from one focusing solely on simulation exercises, to a toolbox of resources for assessing and addressing gaps in preparedness.
- The interface would be a wall, with each brick in the wall being a component of preparedness and, behind each brick, would be links to the tools for assessing and addressing the gaps.
- The EuFMD will collaborate with DG SANTE.F2 and with EU Member States (through the EuFMD contact points) to identify significant gaps, plus criteria for, and examples of, good practice.
- The toolbox will composed of tools developed by EuFMD and the examples of good practice.
- Many of the tools will be generic for, or can be adapted for, other Transboundary Animal Diseases.
- The focus initially will be on the components, not yet addressed, that have greatest impact on effectiveness of disease control – killing, disposal and scaling up of resources.
- The tools will not only benefit EU Member States, but also other member states, in particular those following EU rules.
- The benefits to EuFMD include linking and improved use of EuFMD tools such as the Knowledge Bank, Self-Assessment Tool and EuFMDis.

The paper was delivered by Sally Gaynor, EuFMD (**Appendix 9**). In recent years, the EuFMD has focused emergency preparedness efforts on testing of preparedness, using simulation exercises and by developing a self-assessment tool. Experience has shown that when gaps are identified, it would be useful to have tools to address these. Whilst there are tools that have been developed by EuFMD, e.g. during the epidemiological investigation for FMD, there are other areas of emergency preparedness that EuFMD has not had any involvement to date, such as culling and disposal of animals. At the same time, many examples of good practices can be found in EU Member States, in particular those that have experienced outbreaks of various diseases in recent years. Gaps in preparedness and good practices have been identified by auditors in DG SANTE Directorate Health and Food Audits and Analysis. Discussions with SANTE.F2 have been positive towards a collaboration to make use of these and develop criteria for inclusion as good practice. The EuFMD could then follow up on examples of good practices identified by the unit, through the EuFMD focal points.

Dr Gaynor asked the MS to consider the components of emergency preparedness as a wall, with each brick in the wall being a component, and behind each brick would be links to the tools for assessing and addressing the gaps. The wall is to give the idea of “building up preparedness”. At the base are the foundations, and then the three epidemiological phases of outbreaks – **alert, emergency and restoration** – the phases being aligned to terminology of the FAO Good Emergency Management Practices -GEMP (in its current stage of review). The toolbox will contain tools for each component, and will include three categories: **self-assessment, assessment of resource requirements, and examples of good practice**. These may include the self-assessment tool, questionnaires, or simulation exercises for self-assessment; use of EuFMDis or resource calculators for assessing resources; and guidelines, templates, videos, webinar recordings, checklists, videos, job-aids as examples of good practice. The focus will be initially on the components which currently have no tools and which have greatest impact on effectiveness of disease control – culling, disposal and scaling up of resources.

The toolbox will not only benefit EU Member States, but also other member countries, in particular those following EU rules. Many of the tools could be used for, or adapted for, other Transboundary Animal Diseases. The benefits to EuFMD include linking and improved use of EuFMD tools such as the Knowledge Bank, Self-Assessment Tool and EuFMDis.

Discussion

The President thanked the presenter, and considered that the consultations with DG-SANTE Directorate F and with FAO (Emergency Management Centre) were proceeding well, with the clear gap in guidance tools being addressed in a practical way. The potential for this work to support strongly the OIE/FAO EMC and the project on resilience against agro-crime were also mentioned.

The representative of Serbia thanked the EuFMD team for support to the recent national simulation exercise, which had taken place the previous month. He stressed the importance of regional collaboration, and the core role of the EuFMD in bringing other interested parties to Serbia, to allow for a wider training. The psychological impact of the UK FMD outbreaks in 2001/07 was mentioned by the CVO of the United Kingdom and that a recent wellbeing survey of Government Officers had identified the residual impact. She added that preparedness must include wellbeing issues, especially for recruitment of staff to government service as the memories of that extremely difficult period (such as killing of livestock on a big scale) are still vivid.

The important potential bottleneck of rendering capacity was raised by Mr Füssel - capacity in Europe is currently only fit for day-to-day demand. Keeping spare capacity is expensive, and the ASF problem is such that it must now be arranged for carcasses to be moved across borders, as a result of this. Resources must be ready and available for an emergency.

The representative of Malta reported on a recently concluded four-day simulation exercise and concluded that each exercise costs, but is valuable for policy-makers. One lesson learnt is that there is a value to test ourselves in bad weather rather than good weather and was pleased to note that the EuFMD is already applying this concept – by conducting the exercise in Bulgaria in January.

Dr Sumption commented that the novelty of the “wall” is that it is a first attempt to build a truly comprehensive toolbox for preparedness planning – including the so-called hard and uncomfortable issues that had not been a feature of the more menu-driven training programme. It will take some time to ensure the wall is complete and so the proposal is to set a two-year deadline.

Conclusions

1. The development of a truly comprehensive tool box to assist the member states in preparedness planning is called for.
2. A close working relationship with Directorate F of DGSANTE in this process is encouraged.
3. The provision of assistance to countries to run national or regional simulation exercises has been appreciated. Continued support in this regard will be important, including reinforcing exercises for other major TADS, as a means to also gain experience of value to the wider MS, should be considered.

Item 6. Technical point 4**Early warning and better preparedness for FMD and similar transboundary animal diseases in the European neighbourhood: the case for an integrated approach**

Document provided: Summary paper including Key Messages

*Presentation: **Appendix 10***

Key Messages

- Risk of introduction of FMD and similar TADs (FAST) in Europe remains very high. The regions of North Africa, Middle East and West Eurasia are key areas for a number of emerging risks for Europe.
- A better knowledge of the livestock flows in the European neighbourhood would be a core for the assessment of dangers threatening Europe and would provide useful information for the national veterinary services for designing more effective national disease surveillance and control programs.
- The collection and sharing of risk information between neighbouring countries can facilitate the regular updating of the risk assessment carried out at national and regional level. Information sharing tools and well established regional networks can facilitate the systematic collection, collation, analysis and sharing of relevant data for the risk assessors.
- Maps resulting from the assessment of animal mobility and other risk information (e.g advancement of vaccination programmes, outbreaks occurrence, and circulation of new strains) can be used to develop ongoing risk based surveillance in hot spot locations and optimize the veterinary service resources deployed in the field.
- The capacity for early detection of FAST incursions, depends largely on sensitivity of the primary surveillance, on effectiveness of the disease reporting system, and on the active surveillance implemented in risk hotspot areas. The capacity to collect regularly and submit isolates to the international reference laboratories is essential to detect circulation of new virus strains in endemic areas.
- Involvement of stakeholders is important to improve the sensitivity of the primary surveillance. The use of tools such as apps, SMS and other online systems can contribute to the collection of timely information, and the adoption of a “negative reporting system” in high-risk areas can increase the detection of FAST circulation at an early stage.
- Laboratory capacity to confirm and investigate suspicions and epidemiological skills to adapt surveillance according to the risk are necessary to implement an early detection system with a good level of sensitivity. Regular training and networking between centers of expertise can contribute to build capacities in Europe and neighbouring countries.

This item was presented by Fabrizio Rosso, EuFMD (**Appendix 10**). In this paper, the case for an integrated approach for multiple TADS was made, considering the co-circulation of several TADS in parts of the neighbourhood region, and the lessons from spread patterns for each TAD that can inform better prevention of FMD. A key to risk factor for several TADS is the livestock flow into the neighbourhood. The implementation of specific surveys and the monitoring of proxy indicators of animal movements, especially in areas with a general lack of national animal identification systems and movement monitoring (e.g. North Africa), are key elements for tailoring a risk-based approach for surveillance and for the development of early warning and reaction systems. The combination of qualitative risk analysis and risk mapping contributes to assess the risk of introducing and disseminating FMD and similar TADS within the countries and across their borders. The resulting risk maps can be useful to develop disease surveillance programs focused on specific risk hubs, in order to optimize the veterinary service resources deployed in the field and improve the effectiveness of control measures implemented. Progress has been made through a EuFMD and CIRAD collaboration to promote an integrated method based on qualitative risk analysis, risk mapping, animal mobility, market prices data analysis and surveillance protocols. The work has been intense in the past year, but now offers the opportunity to national veterinary services to update regularly the FMD surveillance and control strategy in relation to risks of FMD introduction and spread. Considering that the risk can change over time, and that risk information must be re-assessed continuously, the proposed methodology can contribute to adjust health risks in a relevant and innovative way by improving the efficiency of the risk-based disease surveillance and control while streamlining costs. Furthermore, the sharing of risk information between neighbouring countries is an important part of regional risk reduction and such sharing should not be dependent on international intermediaries – in the example of Greece, Bulgaria and Turkey, direct CVO to CVO contact has been important and appreciated.

The **Statement of Intentions established in 2016** under the framework of Gf-TADs between the veterinary services of **Armenia, Azerbaijan, Georgia, Iran, Turkey** and the **Russian Federation** for an intensified collaboration in the prevention and control of FMD and similar TADs, can be a model adapted and adopted in other regions to improve effectiveness of control programmes and reducing the risks.

Dr Rosso drew attention to several elements of the current FMD early warning system that could be extended for an integrated approach for FAST diseases:

1. Primary surveillance and reporting system. With the example of the exercise to assess the sensitivity of the primary reporting system for FMD, have been carried out in Thrace (border between Turkey, Bulgaria and Greece) and North Africa within the EuFMD workplan, and with the participation of stakeholders and the identification of gaps and priorities for improvements.
2. Active risk-based surveillance in hot spot locations. The risk assessment based on animal mobility and other risk information (such as advancement of vaccination programmes, outbreak occurrence, and circulation of new strains) can be used to develop ongoing risk-based surveillance in hot spot locations. Such a system has been successfully applied for six years for various diseases (FMD, PPR, SGP), to provide confidence in absence of virus circulation, and has been already discussed for the Thrace region. Other similar surveillance have been implemented for FMD in other areas such as in North Africa to detect silence circulation of the disease among the small ruminant population in 2017-2018. The surveillance showed disease circulation in risk border areas of Morocco and Tunisia and a wider spread in Algeria.
3. Monitoring of circulating strains. The system for FMD has been to support sample shipments from areas where information is most needed. This systematic approach to address gaps does not exist for other TADS. An integrated system should prioritize shipments based on the importance of the potential information they will provide.
4. Better preparedness. National laboratory capacity is necessary for an effective early detection system. The support to FMD –NRLs in the neighbourhood has been a feature of the EuFMD Pillar II programme. In future, networking between European and neighbouring centres of expertise can contribute to mutually important capacities - for example the daily practise of surveillance for TADS outside Europe could assist for confirmation in a crisis.

In conclusion, an integrated, ongoing active and primary surveillance for multiple TADs in risk hot spot locations can be built as a natural extension of the recent work on FMD and can contribute to optimize the use of the available resources and early warning system in the European neighbourhood.

Discussion

The Chairperson of the Standing Technical Committee, Dr Ryan, thanked the speaker for the presentation and commented upon the effort needed to both increase the participation of neighbourhood countries and to provide information on an increased number of TADS. What has been learnt from the challenge of doing this for FMD in the neighbourhood? It was highlighted that first of all, regular contact was seen as key and as well as having Short Term Placements (STPs) from the regions, working with the EuFMD. Then, extending expertise learned in one region to another has been helpful, for instance Libyan trainees going to Jordan.

Conclusions

1. Given the weaknesses in information on circulating of FAST diseases in several parts of the European neighbourhood, and the scale of the challenge to address this, integrated approaches making use of information from multiple sources, and optimization of additional efforts on the basis of risk and efficiency, and involving sufficient regional partners to provide sufficient quality of information for early warning, must be further explored.
2. The collaborative and continuous surveillance programmes operating under the THRACE programme (Greece, Bulgaria and Turkey), and the Statement of Intentions (SOI) between the six countries in the Caucasus region, may provide a model that may assist countries in the south and eastern Mediterranean regions.
3. The interest of countries, particularly those with locations frequently affected by FAST diseases, to participate as part of an integrated, neighbourhood surveillance system needs to be explored in REMESA and other regional co-ordination meetings.

Item 7. Report of the Executive Committee on the actions since the 42nd General Session

Document provided: Summary paper Executive summary

*Presentation: **Appendix 11***

The full Report was provided to the participants to the General Session. A short presentation was given by the EuFMD team, with an introduction by Dr Sumption - with the work relating to Europe, the neighbourhood and the global strategy presented by Maria de La Puente (coordinator of Pillar I), Fabrizio Rosso (Pillar II) and Nick Lyons (Pillar III). Etienne Chevanne managed the transitions between Pillar presentations.

In his opening, the Executive Secretary drew attention to the remarkable eight year freedom from FMD in the European Union, all the more notable given the regional situation. A part of the overall success must be the continuous effort between the agencies as well as the role of the three "Pillars" of the EuFMD programme in information generation, communication and training for response.

Under Pillar I, there has been a continued high demand for training courses and a strong delivery of e-learning at national level in a variety of European languages. The development of the EuFMDis model, starting with seven countries in Central Europe, brings an exciting new capacity to contingency planning in those countries that can be applied to other diseases as well. The expertise in the member States has also assisted the EuFMD to support countries in the Balkan regions, and Spain and Portugal to run national and regional simulation exercises.

Under Pillar II, the efforts have been intense to assist countries to improve their national FMD control plans and monitoring their effectiveness. The epidemics in North Africa have focused attention on risk pathways from sub-Saharan Africa to North Africa, and a solid collaboration with CIRAD (France), has assisted to bring livestock movement data into risk mapping in North Africa.

Under Pillar III, the EuFMD is now well integrated into the GF-TADS Global Working Group and has provided strong support to Regional Roadmaps held in East, West, and Central Africa, in the Mid-East, West Eurasia and South Asia. The specific focus upon West Africa and South Asia (agreed at the 42nd General Session) has been important, with over 1000 veterinarians trained through e-learning on FMD investigation. This has probably helped ensure the regional pandemic of type O EA-3 was well tracked as it moved through the whole of West and North Africa in 2018.

Dr Chevanne drew attention to the linkage between the parts of the programme - and how some common issues affect all countries - such as the acute shortage of vaccines to address epidemic or endemic FMD. This issue of "global vaccine security" was the theme of the EuFMD Open Session held in Puglia, Italy in October 2018, with over 250 participants at the meeting and 300 online.

The President, Dr Angot, concluded with a summary of the Executive's effort to support the programme and to communicate with member states, European Commission, REMESA and GF-TADS partners. He thanked the Vice-Chairs, FAO, OIE and EC for their daily engagement and concluded that the **positive FMD health status in Europe** at present is therefore something significant that has resulted from this relationship, and is really the achievement of all, and all are to be thanked.

Conclusions

1. The recommendations of the 42nd General Session (2017) have to a large extent been addressed and a very good level of progress made in delivery of the 16 components of the work programme agreed at the previous Session.
2. The Session noted the efficiency of the operational delivery of a large programmes and commended the Secretariat on this achievement.

Item 7. Report of the Training Evaluation Group

Document provided: Report of the Evaluation and the EuFMD management response (Appendix 12)

The Executive Secretary introduced the item. The EuFMD had invited an evaluation of the training programme as a result of concerns within the team of trainers and Secretariat staff that the very rapid expansion of the range of courses, the increased language offerings, might be affecting quality of course content and impact through the pressure of development and delivery upon a small team. An open call for experts in veterinary education was made in the autumn and from the call, three experts were invited, from the UK, Belgium and Italy, with experience in leading veterinary medical faculties and with individual expertise in cattle herd health, state veterinary officer service and international network "One Health" education. The evaluation group visited in December 2018, and the group was chaired by Wendela Wapenaar (University of Nottingham).

Dr Wapenaar summarized the report of the evaluation. The knowledge present in the team and the various training programmes were considered both invaluable and unique, and the group felt the quality of the courses offered was excellent. They considered the training could even be extended to a considerably wider audience and has the opportunity to develop into an accredited course within a higher education institution. **The weaknesses observed** during the evaluation visit were quality assurance of the offered training and impact assessment. The **strengths of the programme** are the team of people involved, their expertise and their attitude. The evaluators hope their report would be useful to help further develop a future strategy. The MS and EC were thanked for supporting the training programme and for the concerted efforts helping to control FMD worldwide to the benefit of animals and people.

Dr Sumption indicated the team had provided a response to the 37 points in the Report (summarized below). There would need to be significant effort placed in areas where funding and effort had not been retained before, for example upon impact assessment and the processes of quality assessment for courses at every stage of development to delivery.

EuFMD Secretariat –Response to findings (April 2019)

As a result of the evaluation, we propose the following to:

1. **Commit** funds to assess the impact of selected training courses delivered under Phase IV, such as the Real-Time Training programme, and from this, better understand how to build impact assessment into the course development and delivery.
2. **Develop** a new system for quality assurance of course development, delivery and impact assessment, with guidance from establishments in the Evaluation Team.
3. **Identify**, following point 1 and 3, core positions and responsibilities within the training team, to ensure the daily management follows the principles and practices agreed, with implementation starting from September 2019.
4. **Further explore** the possibilities of certification of courses on the basis of quality and relevance, including the potential that EuFMD training courses (on emergency preparedness for FMD and similar TADS) become in the near future part of a career development path for veterinary officers, under a wider "competency based training framework" such as being considered by the Association of European State Veterinary Officers chapter of the FVE.

Discussion

Prof Katerina Stärk praised the process of review and suggests that other areas of the programme would benefit from similar evaluation. She suggested that the European diploma system could be useful for certification processes. Dr Wapenaar commented that QA is a lengthy process and can be achieved through collaboration with Universities or another organizations. She added that the motivation behind undertaking training is crucial. The Focus of e-learning and training courses has been on government veterinarians, but s students and private practitioners should possibly be considered. Dr de la Puente (EuFMD) added that private vets are increasingly being given opportunities to take courses but for some regions, the completion rate from the private sector is not as high as for official vets, presumably because of the differing incentives or drivers for taking courses.

Dr Füssel emphasised that CVOs of MS should not forget to ensure that trainees after Real-Time Courses should be considered for proposal for the CVET emergency team lists, to be available potentially to respond to emergencies.

Conclusion

1. The external review of the training programme was considered to have provided a valuable opinion upon the quality of the training course development and delivery in relation to best practises in international education.
2. Progress to address the recommendations should be reported upon at future Executive Committee and consideration given to establishing a system for regular review by an education advisory group or external evaluators, given the importance of the training programme for the member states.

Item 8. Proposed updating to the four-year Strategic Plan (2019-22)

Document provided: Summary paper

Presentation: **Appendix 13**

New Strategy: **Appendix 14**

For Decision of the 43rd General Session of the EuFMD

1. The endorsement of the proposed Strategic Plan (“HOLD-FAST”), with any modifications as recommended by the Session;
2. The endorsement of the proposed arrangements relating to co-ordination with GF-TADS;
3. To take note of the proposal, to be made under a separate Item at the Session, of the revised Terms of Reference for the EuFMD Special Committee, which have the purpose of increasing the technical support to the Executive and Secretariat, in relation to the extended coverage of the strategy to include similar TADSS to FMD;
4. The proposal for securing financial resources to support the Strategy, recognising the needs to 1) ensure an adequate financing of the activities in order to maintain preparedness for FMD and essential risk reduction actions in the European neighbourhood, 2) commit the human resources in the Secretariat in support of the Strategy, and 3) leverage additional involvement and support of member states and other parties and partners to achieve a greater impact from the efforts funded through EuFMD.

The Executive Secretary introduced the item and outlined the new Strategic Plan “**HOLD-FAST**” (**Appendix 13, 14**). The **HOLD-FAST** plan had been developed in response to requests from the Officers of the Commission for a strategy that would respond to the issues raised at the OIE Regional Conference for Europe (Tbilisi, September 2018) of the need to leverage the EuFMD expertise to support preparedness for other TADS in the European region. The new strategy, recognizing the impact and risk of FMD, maintains a focus upon FMD risk reduction, but extends the scope of the preparedness and risk reduction activities to similar TADS which pose an immediate threat to the member states (*hereafter FAST is used for FMD and similar TADs*). The strategy will utilize the successful EuFMD training platform to cover the specificities of other TADS, and implement existing generic tools (spread modelling, simulation exercise support, risk-based surveillance) to improve preparedness for the additional threats. In the neighbourhood, early warning of FAST diseases should be greatly enhanced by multi-pathogen surveillance programmes in high risk hot-spots, and through support to greater networking between European and neighbourhood experts and reference centers. At global level, the EuFMD will continue to underpin the OIE and FAO (GF-TADS) Global Strategy, using its expertise in delivery of online training programmes, and it is expected that these will catalyse development of training on PPR and other TADS by GF-TADS partners.

Given the extension of activities beyond FMD, he emphasized the risks that had been considered important and that had to be addressed to ensure the implementation of an effective and well-coordinated programme with the increasing number of partners that would be involved. Closer co-ordination with GF-TADS Europe and EFSA will be needed, and a wider range of expertise (on multiple TADS) required in the expert groups called upon to provide specific guidance. To this end, a new Special Committee on Surveillance and Applied Research (SCSAR) is being proposed at the 43rd General Session. The Executive Committee will also require greater input from the Standing Technical Committee (STC) on issues of prioritization, given the dynamic disease landscape.

Dr Sumption outlined how the operational risks would be addressed, as well as the financing of the programme. He provided details on the funding identified as necessary for the new elements of the programme, including major new items such as the diagnostic bank. The support of the EC in this agreement would be vital, and the new programme had been calculated as requiring 4m€ per annum of which 1m€ would be from member states

(contributions for the Administration) and extra-budgetary support from funds received from additional surveillance and development or delivery of training.

The three Strategic Goals / Pillars

- I. **Improved preparedness** for management of FMD and similar TADS (“FAST disease”) crises by Members and across Europe as a whole.
- II. **Reduced risk** to Members from the FAST disease (FMD and similar TADS) situation in the European neighbourhood.
- III. **Sustained progress** of the GF-TADS Global Strategy against FMD and the improved security of supply of effective vaccines

Discussion

The representative of Denmark indicated support to the expansion of the mandate, considering how well the EU and EuFMD work together. He mentioned that the FAO, as an international organization, has a valuable synergy to that of the EU and that the EuFMD should keep the three pillar format. Progress in disease control in the risk countries for Europe is a lengthy process and it was suggested that EuFMD collaborate more with FVE to develop courses involving the private sector. The Executive Secretary confirmed EuFMD has discussed with FVE and joined a working group, under FVE, to consider training competences for veterinarians working on competent authorities. This could lead to a system that creates motivation for people to tackle longer training courses.

Sweden’s representative congratulated the EuFMD on work and presentations. They recognized the synergistic effects of EuFMD work, experience and system to support countries to manage other TADS. Sweden supports the plan, which is deemed balanced and pointing in the right direction, but reiterated the need for consultation during implementation to ensure priorities are properly addressed, as well as collaboration with FAO and OIE.

Dr Füssel mentioned that PPR should be a priority to start with, after FMD. The synergies between the Progressive Control Pathways for PPR and FMD should be explored in order to synchronize or link them. He supported the categorisation, with vector-transmitted diseases on the second step, after those primarily linked with movement of live animals in the neighbourhood, as the first priority. He added all should be aware that the programme will take time to be developed.

The UK CVO, Dr Middlemiss indicated support for the new strategy, with its pro-active intention, its flexibility and agility for disease control, and the way it provides a mechanism to work on threats that are known about but upon which no action can be taken at national level currently. She supported the focus on synergistic areas such as animal movements as a priority.

This was further supported by Prof Stärk. The new Strategy was considered a good balance between consolidation and actions to address the new challenges, and supported retaining the three pillar approach. She appreciated the detail provided with the indicators, outputs, outcomes and would like to see indication of how review and evaluation are planned, as these matter in the project cycle.

Dr Sumption thanked all for the helpful and supportive comments. Priorities, expertise and flexibility are the areas the technical committees can support the Executive. The EC position on PPR seems well in line with the results of the GF-TADs evaluation, to achieve a greater working efficiency between the GF-TADS priority diseases of FMD and PPR where parallel progressive pathways exist. Many of the tools, such as e-learning, national assessment tools for FMD, even the expertise for national guidance might be given together, or synergies found, and the FMD-WG had already provided some thoughts on a paper on this to the other Secretariats. However, even the issues of vaccine availability and quality are similar, though more complex for FMD. The evaluation will be included as appropriate and according to budget availability, possibly at mid project.

Conclusions

1. The new strategic plan for the Commission was considered well balanced, appropriate and feasible, and provides for a cautious and measured extension of the focus of activities beyond FMD to address the risks of similar transboundary diseases.
2. Priorities among the similar diseases were seen as being those primarily transmitted through live animal movement, including PPR, with the risks and benefits of actions relating to primarily vector borne diseases kept under review.
3. At international level, the Strategy and work programme should synergise with the principle GF-TADS programmes, using the expertise and tools developed for the FMD progressive control pathway, such as e-learning.
4. An increased role of the expert committees to provide guidance to the Executive and support the Secretariat in the questions of risk assessment and prioritisation should be recognized, and provided with organisational support and other resources to undertake their role.

Item 9. Information session - Current FMD and other transboundary diseases situation

Turkey, Israel and Georgia

The presentations are available as **Appendices 15** (Turkey), **Appendix 16** (Israel) and **Appendix 17** (Georgia).

9a. Current FMD Situation in Turkey

The report was provided by Dr Abdunaci Bulut. The situation was reported as increasingly favourable with only one serotype currently responsible for outbreaks and a steady decline in cases which was attributed to the year- on-year increase in the vaccination delivered to the cattle population, and the increasing immunity achieved in target age categories through use of booster vaccination. A new national strategy has been developed to achieve OIE status of FMD free with vaccination by 2023, preceded by achieving PCP Stage 3 in 2019, Stage 4 in 2021; Anatolia is currently in PCP Stage2, and Thrace region remains recognized free with vaccination.

New actions in the strategy are:

- Clinical surveillance programme in Provinces along the border;
- for the first time, application of stamping out in Anatolia;
- Use extra high potency (10PD50) vaccine in borderline provinces, in response to outbreak in surveillance zones, and on risk basis;
- increased efforts to reach targets for booster vaccination;
- Restriction of movement – obligation to use identified roads and check points, requirement vaccination two times within last six months, with automatic restriction through the I&R (Turkvat) system;
- Improvement of the infrastructure for managing movement and dealers.

Relating to LSD: increasingly favourable, with all outbreaks restricted to east of Anatolia in 2018 and only two confirmed outbreaks in 2019 at time of report. An over 97% vaccination rate had been achieved and the policy was to use vaccination (3x sheep/goat dose of SGP vaccine) before the transmission season. A new EC funded project will assist Turkey to achieve eradication with the use of vaccination and stamping-out.

For SGP, the situation is less favourable with outbreaks widely across Anatolia in 2019 but no cases in Thrace region since 2017. All small ruminants are vaccinated in Thrace region on yearly basis.

For PPR, the situation mirrors that of SGP. Cases have occurred across Anatolia; the vaccination figures provided are based on targeted populations not the full population. The intention remains to eradicate progressively the disease, and to achieve freedom in Thrace region after withdrawal of vaccination in 2020. Movement of unvaccinated animals across Turkey, is prohibited. Vaccination is used in response to outbreaks, with a policy of vaccinating new-borns and unvaccinated adults.

In response to the PPR outbreak in Bulgaria, two programs for clinical surveillance (90 and 56 villages respectively) were performed with over 8000 animals examined with negative results. Immunity was examined by sero-survey with a minimum of 88% sampled having sero-positives attributed to vaccination in each province of Thrace.

The President thanked Dr Bulut for the presentation and welcomed the new FMD strategy. He also thanked Turkey for including additional TADs in their presentation and mentioned this is a good example of inclusion of FAST diseases. Although the picture differs between the FAST diseases, the evidence of a good FAST disease health status in Thrace, and with the actions taken to maintain this, are to be congratulated.

Discussions followed on issues including the reception of the stamping-out policy by farmers; the response focussed on the financial preparation for this measure. The representative of Bulgaria welcomed the new strategy and found the reduction in incidence of FMD and LSD to be encouraging. There followed questions on the use of homologous versus SGP vaccine (three times dose). Following a study at the Pendik Institute, it was decided to maintain the use of SGP vaccine against LSD, and this will be used in Anatolia as the tender has already been finalised.

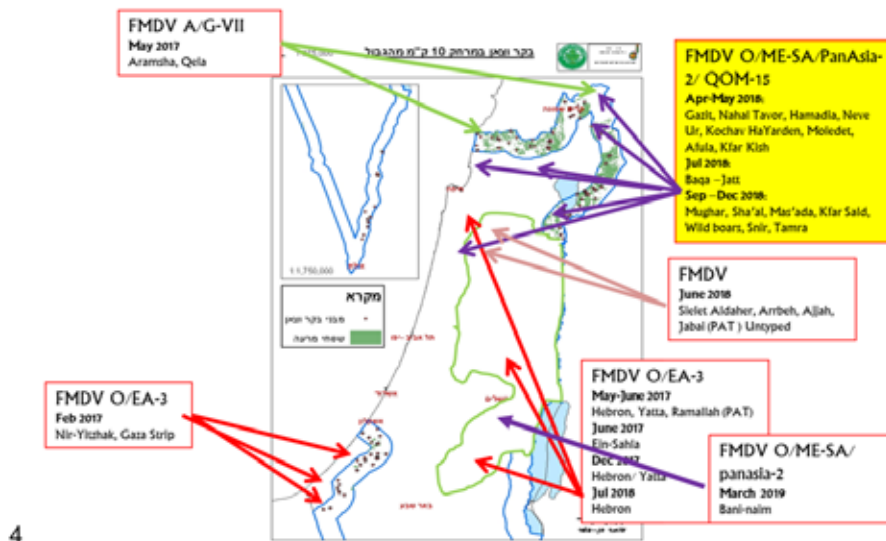
The use of a 10PD50 FMD vaccine potency was also discussed: the decision for this is based on vaccine matching results and the need to cover the diversity in risk from field strains; there is no question on lack of vaccine matching with current Turkish strains but there is risk associated with the genetic diversity in Iran and Pakistan and regular incursions from these regions to Turkey. Therefore, they used the 10 PD50 vaccine in the border areas.

Dr Bulut then raised the issue that Turkey had submitted documentation for progression from stage 2 to 3, in line with the required, more aggressive strategy for elimination of the FMD virus, and they were disappointed this had not been accepted. Turkey requested that an online meeting of the Regional Advisory Group (RAG) be organized, between the roadmap meetings, to ensure a reassessment of the stage of Turkey. The country has made huge investments in FMD control and controlling high risk to Europe. Turkey believes their FMD control status is now higher than other Stage 2 countries in the West Eurasia region such as Iran, Syria and Pakistan.

The Executive Secretary indicated that there is a process for review by GF-TADS of the documentation submitted between Roadmaps to support the RAGs. It is not a simple process to review against the criteria and cannot be achieved in complex cases if presented at a Roadmap meetings, where there are many other cases to consider as was the case in this situation. He assured this would be brought to attention, and that though EuFMD support, a document management system for expediting submission and clearances was under development and should assist in future submissions.

9b. FMD and other transboundary diseases: Situation in Israel

The report was provided by Dr Goshen, and covered FMD, bovine ephemeral fever (BEF) and simbu type viruses. The situation with FMD is complex given the risks for incursion of FMDV from all directions, with different genotypes of Africa and Asian origins, and coming without warning from the neighbours. Asia- had not been recorded since 1989 and the vaccination policy was to use multi-valent A and o vaccines with Asia-1 in the national vaccine bank. The risk of SAT-2 from Egypt remains under consideration. He reviewed how recent FMD spread involved both wildlife and domestic species. Control of recent outbreaks has been difficult with some concerns to be resolved in vaccine effectiveness. Regarding BEF, he highlighted the waves of BEF that had affected Israel and the lack of an effective vaccine, which must be considered a potential issue for other countries at risk. On simbu type viruses, they had evidence that virus circulation and outbreaks were now annual and this may relate to climate change. The monitoring system (sentinel calves) may be usefully extended to other countries for greater information on the regional situation.



Map above provided within the presentation of Dr Goshen - borders indicated do not imply any official recognition by the UN.

Discussion

The President thanked Dr Goshen for his presentation which highlighted the important contribution Israel can play as a member state that has a high expertise and experience in the management of FAST diseases which may become the next ones important for the whole region.

9c. Current FMD Situation in Georgia

Dr Zurab Rukhadze presented the progressive control programme of Georgia for FMD control, which aims to reduce the risk of FMD infection in large and small ruminant populations and ensure maintenance the export capacity of animal and animal products of the country. Georgia aims for the full operation of FMD Risk Based Strategic Plan by 2019, reaching PCP stage 4 by 2020 and obtaining FMD official free status with vaccination for candidate zone (**Racha-Lechkhum Kvemo Svaneti & Mestia**) by 2022. He presented the sero-surveillance results indicating the lower past exposure of animals in the candidate zones compared to other risk categories, and how the vaccination programme and internal movement controls aims to further reduce the risks for the candidate zones. In terms of PCP progress, the number of tactics (means to achieve objectives in the risk based plan) has increased from 2017 to over 50% in 2019, and in PVS self-assessment, the country meets most of the critical competences at level 3. The main activities in the immediate future are

- Finish clinical survey in Mestia(part of candidate zone);
- Strengthen movement control in candidate zone;
- Advocate compensation policy to Ministry of Finances;
- Finish contingency plan (General and for FMD);
- Strengthen National Animal Identification and Traceability.

Discussion

The Executive Secretary underlined that, in line with the constitution adopted in 2015, countries not free of FMD should have progressive control plans for FMD, and the reports by the three countries provide evidence that this is the case. Even if Israel is not formally part of a regional Roadmap, its position in the PCP could be assessed by GF-TADS in the adopted procedure. He added that the serious efforts taking place in Turkey and Georgia should be considered, as should the improvements. GF-TADS should be encouraged to consider the recognition of the changes, investments and significant efforts taking place. EuFMD member states should also appreciate Dr Lasha Avaliani's contribution to FMD control in the Transcaucasus region and his activity as an observer in the Executive Committee.

Item 10. Report on the status of FMD antigen and vaccine banks in the European neighbourhood

Document provided: Presentation Appendix 18

Dr Krstevski (EuFMD) presented the results of the survey of the member states and neighbourhood countries on antigens and vaccines held for emergency use against FMD and other transboundary diseases. He highlighted the use of the PRAGMATIST tool and how the use of the tool indicated that the holdings of some banks covered only part of the risks posed by the current FMDV lineages in circulation and therefore the tool provided evidence of gaps and vulnerabilities. However, since countries each have a different risk profile, managers were advised to use the tool at national level, based on most likely pathways for entry, and this may indicate greater or lesser vulnerabilities than when the overall European risk profile was used.

The President thanked Dr Krstevski for the presentation, and remarked upon the important potential role the banks play in addition to that provided by the EU vaccine bank. For the other FAST diseases, it is clear these need to be considered in the future, as part of the wider strategy, and the EuFMD should include these and issues affecting emergency vaccines in future surveys.

Dr King (Pirbright) offered to assist countries present to tailor the tool for their own banks/national situation.

Conclusions

1. Significant strategic vaccine reserves for FMD are held in Europe in addition to the EU-vaccine bank, but primarily by three countries.
2. Vaccine holdings for other transboundary diseases are very limited and the risks posed by the lack of immediate supply need to be kept under review under the new EuFMD programme.
3. The PRAGMATIST tool could be helpful to individual countries to assess the extent of the FMD risk coverage by their current or future holdings.

Item 11. Report of the Standing Technical Committee and its working groups

Dr Eoin Ryan, Chairman of the Standing Technical Committee (STC), presented his Report (**Appendix 19**).

The STC work included the oversight of the two subcommittees, for Applied Research and for Biorisk Management. The major event of the biennium was the Open Session, held in Puglia in October 2018 on the theme of “Global Vaccine Security”, chosen because the issues associated with the lack of vaccine availability and quality for FMD control in both emergency and endemic settings. A strong private sector presence from across the world had demonstrated the value of a public and private sector dialogue on the issues affecting investment in vaccine development and production that affect vaccine access at European and global scales. Similar issues affect investment in vaccines for other FAST diseases and the STC supports the proposal to include PPP for vaccine security in the upcoming work programme.

The important work of the two subcommittees was mentioned. The Special Committee for Biorisk management has met on two occasions and devoted over 300 hours of technical time to revise thoroughly the Minimum Standards for laboratory containment, meeting the satisfaction of the STC.

The members of the Special Committee for Research and Programme Development met in Puglia at the OS18 and assisted the Open Session, but were also active in proposing applied research topics, and supporting the review process for proposals received for FAR (Fund for Applied Research) funding. He summarized the significant research projects ongoing or completed in the biennium.

The STC position for the Executive Committee, that EuFMD could and should play a role in supporting activities in relation to non-FMD transboundary animal diseases.

They considered important points to resolve including

- how to choose which diseases,
- how to decide the extent to which EuFMD gets involved,
- how to balance the need for EuFMD to maintain a clear focus on its core work on FMD with a broadening scope,
- How to ensure coordination with other organizations.

They considered the future role should include developing opinions relating to the above points.

The President thanked Dr Ryan for his work over the past six years which been highly regarded and appreciated by the Executive. He also thanked Dr Borello and Italy for their support to the hosting of the Open Session.

Conclusions

1. The outputs and impact of the applied research funding programme was recognized and this part of the EuFMD programme was import to continue.
2. The role of the STC in providing advice and guidance to the Executive was recognized as important, and sufficient support must be given to STC members by their releasing agencies as well as the Commission to ensure they can sufficiently dedicate time to the work required.

Item 12. Report of the Special Committee**Biorisk Management; Minimum Standards for laboratory containment of foot-and-mouth disease virus and training planned**

Proposed revision: **Appendix 20**

Presentation: **Appendix 21**

The Chair of the Special Committee for Biorisk Management (SCBRM), Kirsten Tjørnehøj (National Veterinary Institute, Lindholm, Denmark) summarized the main issues addressed to the Special Committee, and the background to the Minimum Biorisk Management Standard (MBRMS). The SCBRM (Special Committee on BioRisk Management) had met on two occasions organised by EuFMD and additional meetings organized by the Chair on the side of international biosafety working groups meetings. It had been an intense work with three rounds of consultation (Biorisk officers, CVOs of member states and a final round at the General Session in April). The initial consultation had directly involved almost all of the European laboratories handling FMDV, both at Tier D level (containment facilities including vaccine production) and Tier C (handling FMDV only under specific circumstances, usually emergency settings). The final of these was with the EuFMD MS.

The MBRMS:

- Defines the roles, duties and responsibilities of the management and of Biorisk officers,
- defines expected biorisk, risk assessment(RA) and hazard identification responsibilities,
- Has 70 specific points covering management, personnel, training, biosecurity, facility design, handling of live FMDV, air, waste, effluent and materials, biological materials across barriers and shipment, commissioning and decommissioning.

The SCBRM was formed in 2017 at the General Session to ensure there is a competent Committee for the regular reviewed and to manage any questions which could arise. The review process on this occasion probably exceeded 300 hours of technical input by the SCBRM members. The main consultation to yield detailed responses was that of initial draft circulated to the Biorisk officers of European Tier C and D facilities. Over 140 comments /proposals for revision had been received and considered by the SCBRM. The response rate to the consultation was high, with 26 of the 37 facilities providing feedback and all but 3 of the Tier D laboratories:

Response biosafety professionals Jan. 2019:

Laboratories	SENT for review	Replied		Accepts	Comments
Tier D	17	14	82,4%	5	9
Tier C	20	12	60,0%	10	2
TOTAL	37	26	70,3%	15	11

Altogether approx. 140 comments

The final consultation (to CVOs) had yielded only one proposal for change, which can be taken to indicate the revision process had dealt with the earlier comments to a sufficient degree.

The SCBRM considered the proposed updating to thorough and there are no significant changes posing any additional risks that need to be understood by the CVOs. The changes in the MBRMS do not impose significant additional burdens on BROs of the facilities.

She brought to attention issues to be addressed by the Committee in future,

- Continued development of the MBRMS, including Tiers A and B
- Training in Biorisk management
- Annex/database of accepted inactivation/disinfection methods

- Evaluate alternative procedures
- Opinions on Biorisk related matters for EuFMD

Relating to the Training needed, EuFMD had supported the development of a framework for training on the MBRMS, through a study tour of Dr Carmen Alexandra Sautter (IVI, CH) to The Pirbright Institute (TPI, UK) from January to April 2019. This framework provides a basis for the development of a range of training tools to assist BROs to provide training for the range of persons that need to develop competences at facility level, and also provides guidance to overall management of the Institutes housing the facilities. A short movie was shown illustrating the complexity and importance of the roles of BROs in the high containment facilities of Pirbright, Mittelhausen and Brescia.

Discussion

The President thanked Kirsten for her commitment to this difficult and arduous task, and the Committee members, for the extremely thorough work of the revision.

Keith Sumption indicated that the Session was asked to endorse the work of the Committee and approve the processes and competence of the revision process; but not to consider that the Standard was formally adopted at this point since the Observer from the EC had requested more time to complete the processes of reference in the relevant annexes to the Directive.

Dr Stone indicated that chapter 1.1.4 of OIE Terrestrial Manual was last reviewed by the OIE in 2015. He asked if Biorisk committee had come across any updates needed in this chapter, in which case the OIE would welcome hearing of this. Likewise, the WHO would also welcome such inputs.

Dr Füssel thanked the committee for the work done. He then apologized for the legalistic problem with adoption of revision of the standards. He added that this has not related to the quality of the work done and that in the new Animal Health Law, there is an article on this, not as detailed but it does include statements on Biorisk management.

Conclusions

1. The process and thoroughness of the review process and consultation undertaken to review and update the Minimum Standards (MBRMS) was considered exemplary.
2. The revised MBRMS, as proposed to the 43rd Session, should be considered as adopted by the Commission at the Executive Committee Session that follows confirmation by the EC of the legal position relating to application by EU member states.
3. The complexity of FMD biocontainment is unique in the sense that the primary concern is to protect the external environment from release of the agent. The specificity of the MBRMS has value in bring attention to the essential requirements to achieve this and training upon the principles and practises to achieve the requirements is strongly supported.

Item 13. Technical Committees and their functions in the upcoming biennium.

Proposal: **Appendix 22**

The Executive Secretary introduced this Item. Each Session of the Commission is able to decide upon the appropriate Committees needed to provide technical guidance to the Secretariat and the Standing Committee, and with the new "HOLD FAST" strategy, the range of expertise required would be significantly broader than in the past. The proposal for the selection of centres of expertise was made, and a list of centres of expertise in FAST diseases. On the latter, at the election of Officers and Committee members, the Technical Directors of the Institutes would be proposed, giving the opportunity for these centres to select the most appropriate expert within their team for the specific Committee meeting or issue under consideration.

The proposal indicated both a categorisation of FAST diseases for which decisions on activities will need to be made, and support provided, and competences expected:

- Category 1 : FMD, PPR, Capripoxviruses [criterion: all ruminant infections with similar risk factors to FMD and are currently present in multiple neighbourhood countries, and for which vaccination is an option].
- Category 2: Rift Valley Fever, Bovine Ephemeral Fever [criterion: ruminants are directly affected with major losses; schedule 1 surveillance for other FAST may provide a cost-efficient means to monitor risk or EW for these AND evidence for circulation /disease in neighbourhood countries AND vaccination is needed in response].
- Category 3: Not included in the above since a) these are already well covered by GF-TADS SGE or for which co-ordination is well established at EU level: ASF, CSF, BT and AHS. For these, there may be a value and need to co-ordinate with others e.g. training resources, modelling impact.
- *Competences needed in the Standing Committee*
 1. Expertise in the epidemiology and laboratory diagnosis of schedule 1 or 2 FAST diseases and strong working connections with EU-RL or competent laboratories to support activities.
 2. Expertise in potential vaccines for assessment of their potential use against FAST in Europe, and/or studies on the performance of vaccines against one or more FAST diseases.
 3. Expertise in specialised disciplines that are considered critical for planning or response to FAST diseases, such as surveillance and control in wildlife.

Working arrangements and Frequency of meetings: The extent of annual input is not likely to be more than five working days. One or two face to face (F2F) meetings will be held each year, as needed to ensure a good level of co-ordination and understanding between members and the Secretariat (and its staff managing field activities). Online (virtual conferencing) meetings may also be used.

The costs of the Committee meetings, and funding of applied research in support, will be budgeted within the framework of the support pledged by France (provided as Annex 1 to the proposal).

Conclusion

1. The President re-iterated the support pledged by France to the new Committee and the intention to establish a funding of applied actions and research.
2. There was no comments or objections on the proposal, which was therefore endorsed.

Item 14. Financial Report, Budget and membership contributions biennium 2020-2021

Proposal: **Appendix 23**

Financial Statements: **Appendix 24**

The Executive Secretary provided the Financial Report on the Trust Funds operated by the Commission, and the proposal for the Contributions from member states in 2020 and 2021. He thanked the Member States for the good response to the calls for the contributions over the past years which had allowed to reduce the outstanding arrears. Regarding the Administrative Fund (MTF/INT/MUL/011), the proposal had been circulated to member states in advance of the Session.

The Items for decision were presented as:

1. To index the biennial budget contributions of member states, for each category level of contributions to a standard measure of inflation (the consumer price index (CPI) as recorded by the Organisation for Economic Cooperation and Development (OECD)).
2. The index to be applied is proposed to be the *mid-point between the CPI for the Eurozone countries and that of the European countries. The index should use the OECD data for the CPI change in the 2 year period of the previous two full calendar years before each Session.*
3. To apply this index at every Session, with the following exceptions where there have been unforeseeable impacts of change in exchange rates between the USD and Euro, since budget contributions are set in USD and the major expenditure from the MUL/011 is effectively in euro.
4. To maintain a periodic review of the categories in which countries are placed for contribution, considering that changes in GDP and livestock populations will occur over time. As the last review was in 2015, a review period of every 6 years is proposed (therefore to occur next at the 44th Session in 2021).
5. The budget for Contributions for the biennium 2020-2021, as proposed in Table 1, on the basis of the mid-point CPI (Eurozone and EU28) of 4.5% for the 4 full calendar years from 2015-2018.
6. The proposed expenditure from the Administrative Fund based on the proposed total annual contributions of US\$ **643,725**.

Regarding the Emergency and Training Funds –MTF/INT/004/MUL:

Since 2012, contributions to cover the costs of additional training courses requested by member states and others have been received and disbursed through MTF/INT/004/MUL and the use of funds is reported at each session (*this is contained in the main Report of the Executive Committee*) together with a projection of the committed and predicted contributions in 2017-19 and the outgoing expenditure expected. On the basis of commitments to support the management of future training courses, for the Governments of Australia and New Zealand and others, and the benefits these courses provide in terms of cross-subsidising the training support for the Member States, and on the basis that the Fund is not predicted to be overspent as a result of the activities, the Secretariat proposes to extend the “not-to-exceed” (NTE) date of the EMERGENCY AND TRAINING FUND (004) to 31st December 2021.

Conclusion

The President thanked the Secretary and opened the item for discussion. Finding there were no comments, he considered that the proposals for budgets, contribution and system for indexing contributions to inflation rates, as contained within the circulated paper be considered to be approved by the Session.

Item 15. Election of the Executive Committee

For this Item, Dr Berhe Tekola, Director, Livestock Division (AGA)-FAO, took the Chair, assisted by the Executive Secretary. Dr Tekola called first called for nominations for the Officers of the Commission, these being the Chair and two Vice –Chairpersons.

For the Position of Chairman:

Dr Martin Blake (Ireland) was proposed by Sweden and seconded by the United Kingdom.

For the 1st Vice-Chair:

Dr Lajos Bognar (Hungary) was proposed by Austria, and seconded by Turkey.

For the 2nd Vice-Chair:

Dr Jean-Luc Angot (France) was proposed by Italy and seconded by Spain.

There being no other candidates proposed, the candidates were endorsed unanimously, and each indicated their willingness to serve as Officers of the Commission.

Election of members of the Executive Committee

Dr Tekola called for nominations for the six positions, each of which had to have a proposer and be seconded by at least one other.

For the six members of the Committee, the following were nominated:

		Proposed by	Seconded by
Z. Atanasov	N. Macedonia	Montenegro	Hungary
H. Roest	Netherlands	Belgium	Germany
O. Kalda	Estonia	Poland	Lithuania
C. Dile	Greece	Malta	Hungary
V. Almansa Lara	Spain	Italy	Hungary
N. Pakdil	Turkey	Austria	Poland

There being no other candidates proposed, the candidates were endorsed unanimously, and each indicated their willingness to serve as members of the Executive Committee.

Election of the Standing Technical Committee (STC)

The first three members of the STC were proposed by the outgoing Executive Committee to be the members of the STC; the second three were received as proposals from the member states, following a published, open call for proposals that had been sent to the member states in March 2019.

	Proposer	Position	Term
Dr Stephan Zientara (FR)	Executive Committee	Current STC	To April 2021 (completion of 4 years)
Dr Sten Mortensen (DK)	Executive Committee	Current	To April 2021 (completion of 4 years)
Prof. Katharina Staerk (CH)	Executive Committee	Current	To April 2021 (completion of 4 years)
Prof. James Wood (UK)	United Kingdom	New	Can be renewed 2 years in 2021
Dr German Caceres (ES)	Spain	New (former SCRPD)	Can be renewed 2 years in 2021
Dr Giancarlo Ferrari (IT)	Italy	New (former SCRPD)	Can be renewed 2 years in 2021

Dr Tekola asked the Session for indication of their support for the proposal and this was indicated; none were against.

Election of the Special Committee on Surveillance and Applied Research (SCSAR)

	Institution	Country	Official Contact
1	French Agency for Food, Environmental and Occupational Health & Safety ANSES	FR	Stephan Zientara
2	Bulgarian Food Safety Agency BFSA	BG	Tsviatko Alexandrov
3	Centre de coopération internationale en recherche agronomique pour le développement CIRAD	FR	Renaud Lancelot
4	Centro de investigación en sanidad animal CISA	ES	Miguel Angel Jimenez Clavero
5	Etlik Veterinary Control Central Research Institute	TK	Cevdet Yarali
6	Friedrich Loeffler Institute FLI	DE	Thomas Mettenleiter
7	IZS Abruzzo e Molise IZSAM	IT	Nicola D'Alterio
8	IZS Lombardia Emilia Romagna IZSLER	IT	Giorgio Varisco
9	Kimron Veterinary Institute	ISR	Michel Bellaiche
10	Laboratorio Central de Veterinaria LCV	ES	Montse Aguero
11	National reference lab network of Balkan countries/Faculty of Veterinary Medicine Skopje FVMS	MK ²	Kiril Krstevski
12	Pendik Veterinary Control and Research Institute	TK	Fahriye Sarac
13	Sap Institute	TK	Abdunaci Bulut

² North Macedonia

14	Sciensano		BE	Kris De Clercq
15	The Institute of Virology and Immunology IVI		CH	Christian Griot
17	The Pirbright institute		UK	Don King
18	National Wildlife Research Institute IREC, Univ. Castilla-La Mancha IREC		ES	Cristian Gortazar
19	Wageningen Bioveterinary Research – Lelystad WBVR		NL	Wilhelmus Loeffen

The Secretary drew attention to the endorsement under the previous Item, of the SCSAR. As part of the proposal, a list of institutions providing expertise on FAST disease surveillance, research and control options had been circulated.

The following was proposed as the official contact points for the SCSAR, representing the Institutions below.

The Chair opened the proposal for comments. There being none, the list was endorsed for the Special Committee.

Other centres of expertise proposed to be contacted for specific diseases		
CRESA (for LSD, RVF)	ES	Casals JORDI Jordi.Casal@uab.cat
Universidad de Zaragoza (for vectors)	ES	Miguel Ángel MIRANDA ma.miranda@uib.es

Election of the Special Committee on Biorisk Management (SCBRM)

The Secretary provided the list of the eight SCRPD members proposed by the Chair of the outgoing SCBRM.

There being no additional proposals, the list was endorsed.

	Name	Country	Position in SCBRM
1	Douwe Kuperus	NL	Current
2	Cesare Bernieri	IT	Current
3	Kirsten Tjornehoj	DK	Current
4	Gonzalo Pascual	ES	Current
5	Ulrika Allard	SE	Current
6	Michael Eschbaumer	DE	Contributing expert
7			
	Graeme Harkess	UK (TPI)	New
8	Stephan Karlen	Switzerland (IVI)	New (Replaces Katharine Summermatter on her move to new position)
9	Ronan O'Neill	Ireland	New

Statements by the incoming and outgoing Presidents

Dr Jean-Luc Angot, as outgoing President, thanked the member states of the EuFMD Commission, the members of the Executive, and recalled the support of the previous president (Ulrich Herzog) and the Vice-Chairs. It gave him pleasure to note the progress in some significant areas, especially in training, with its novel approaches to achieve a high involvement and the innovative e-learning courses; in the work supporting REMESA, and the support given to build networks including the francophone FMD network; in the Open Sessions, with their global significance; in funding for research, which was now recognized by member states. On the latter, he announced that France was prepared to provide €200,000 in support of the FAST applier research fund. He considered the partnerships between EuFMD and OIE and FAO had developed well in the past four years, supporting GFTADs. The Special Committee for Biorisk Management was an example of the technical expertise in the European member states, that is fundamental at international level. He considered that the new strategy (FAST) project is a great step in the life of the EuFMD and thanked the MS for supporting this development. He also mentioned that the two highlights of his time as president were networking and partnerships that the EuFMD has helped to consolidate, not only with the international organisations but also with the reference centres and research centres in France, United Kingdom, Belgium and Italy which on a daily basis assist to ensure that our region retains its technical capacity to respond to FMD risks. He then thanked everyone for their supports and wished good luck to the next chair.

Dr Blake gave a short speech, recalling the early days of the Commission – the pioneers who set up this organisation. They had to find their way, to establish a strategy, and find the means to support it. He stated that we are in a new phase now, and need to find the means to support the new strategy. He thanked all of the MS for their willingness to embrace the new strategy and to support with their contributions. He assured that the Commission will not lose its focus- that “we will HOLD FAST to FMD, while looking for leverage and synergies with other diseases”. He thanked Dr Angot for his important contribution, and the Commission, especially Alf Füessel, for his tireless inputs to Commission actions and support through the EC/FAO financial agreements. He acknowledged also the new members of the Executive, for their willingness to join in the work required. The new Chairman concluded with the Irish saying- “*is láidreacht aontacht*” “unity is strength”.

ITEM 16. Recognitions for service

The Executive Secretary presented awards in recognition of service to the following:

- Dr Eoin Ryan, in recognition of his chairmanship of the Standing Technical Committee (STC) of the EuFMD, since 2013.
- Dr Jean-Luc Angot, for his great contribution to international disease control and the growth in partnerships under his Presidency of the EuFMD from 2015 to 2019 and his prior service as Vice-President.
- Dr Alf-Eckbert Füessel, for his outstanding contribution to the control of FMD in Europe, with over 20 years of continuous, high level involvement in EuFMD Sessions, personally attending over 60 Sessions and meetings of the Commission, and participation in emergency response missions and provision of emergency vaccines to combat every risk to Europe, since his first joint mission (EC/EuFMD) in 1996. Moving testimonials to the impact of Alf’s contribution and character were read, from many of the most significant figures in FMD control in Europe and the world. His recognition was very warmly applauded by all present.

ITEM 17. Draft recommendations

The draft Conclusions and Recommendations were presented - and adopted, there being no additional comments.

Closing of the Session

The Chairman was joined in applause for those who had worked tirelessly over several months to prepare the 43rd General Session, particularly Nadia Rumich, for her work in ensuring the highest standard of communications and documentation, Cecile Carraz, and her team of Erica Tomat, Maurizio Licastro, Filippo Pedullà, Francesca Renzetti and Silvia Epps who have worked tirelessly to deliver a very significant work programme at the same time as all arrangements for a successful Session.



www.fao.org/eufmd.html