



Global FMD Surveillance Report

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WRLFMD

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WRLFMD: Our history....

World Foot-and-Mouth Disease Reference Laboratory

In connection with the action taken by FAO in appointing the Research Institute, Pirbright, United Kingdom as a World Foot-and-Mouth Disease Reference Laboratory, it was decided that the interests of the Commission should be included. Following negotiations, the Government of the United Kingdom accepted a contribution of £250 per annum for the next two years, beginning 1958 from the Commission in recognition of the Commission's interest in the work.

50th Anniversary
May 2008

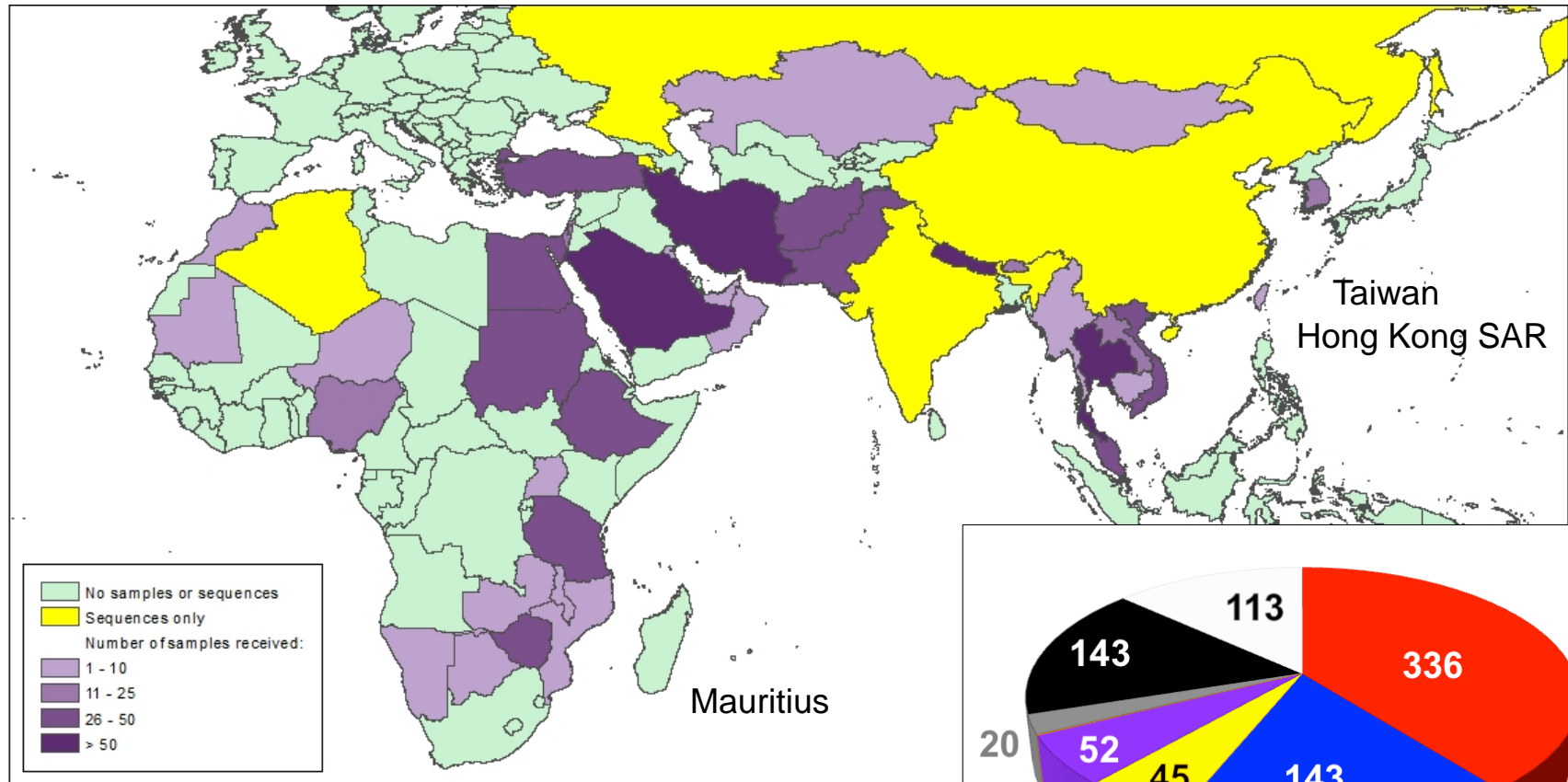


Royal Society, London, 2008

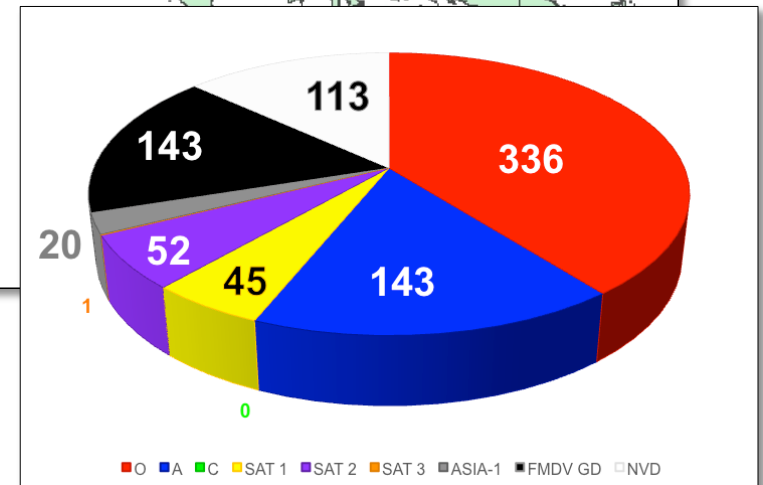
Samples and sequences received at WRLFMD

April 2015 – March 2017

853 samples



Currently processing samples from:
Algeria, Ethiopia and Iran



Quarterly reports and phylogenetic trees: www.wrlfmd.org

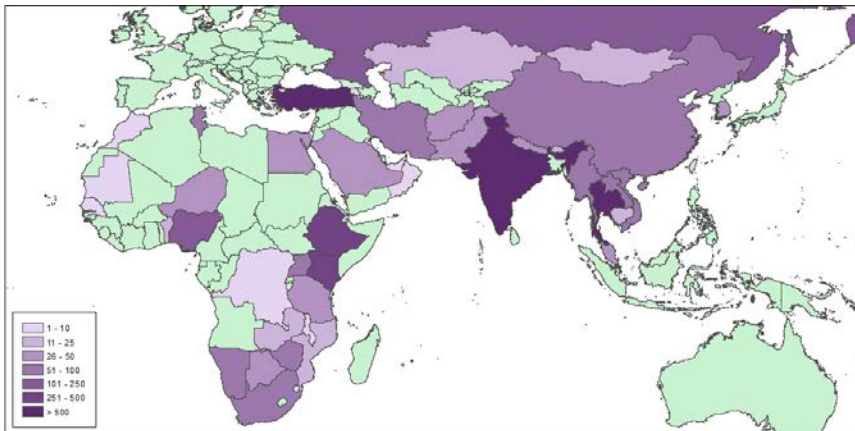
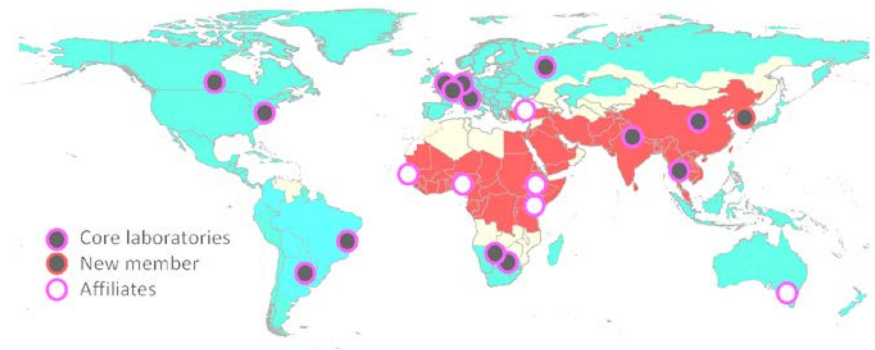
www.pirbright.ac.uk

OIE/FAO FMD Laboratory Network



- **Global surveillance and changing patterns in risk pathways**
 - Priority - gaps in East and West Africa
- **Harmonised and improved lab capacity**
 - Working Groups (nomenclature and PVM)
 - Meeting reports available <http://www.foot-and-mouth.org/>

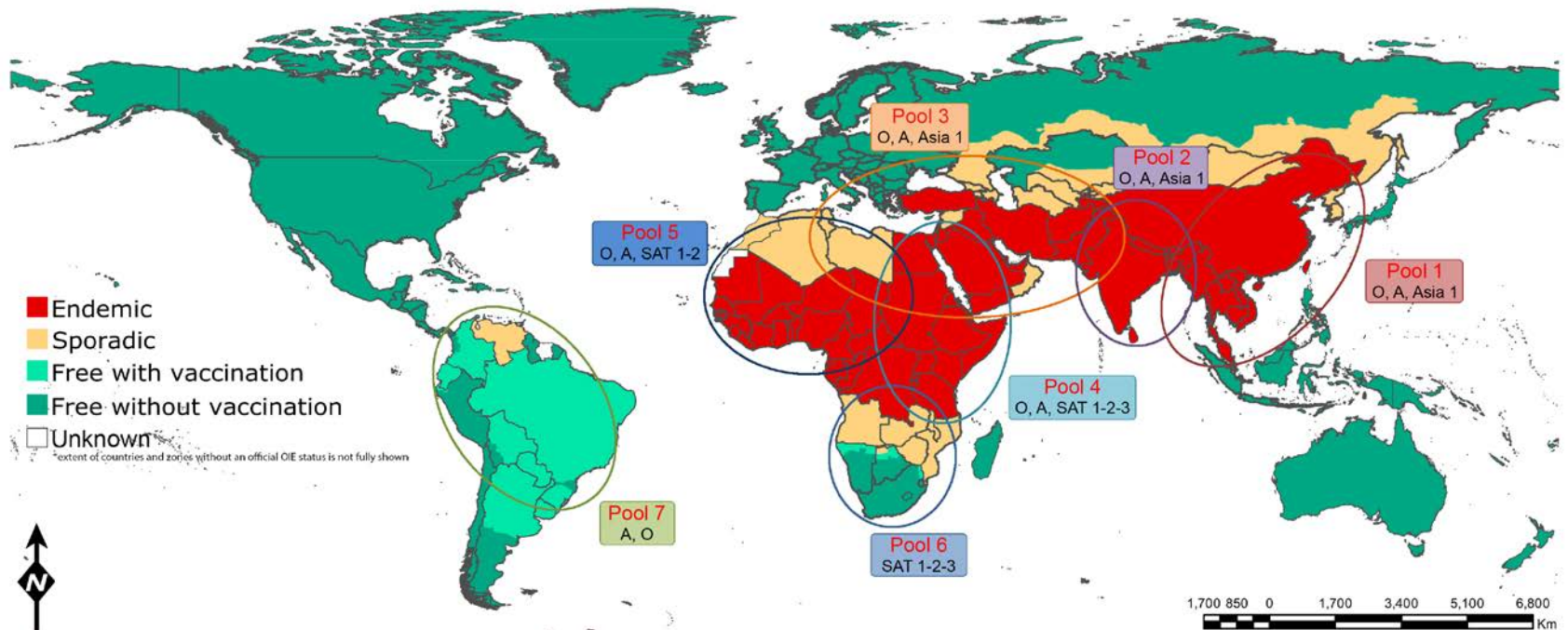
Core Network Members and affiliates:



Paris – November 2016

FMD: Headline summary and conjectured global status

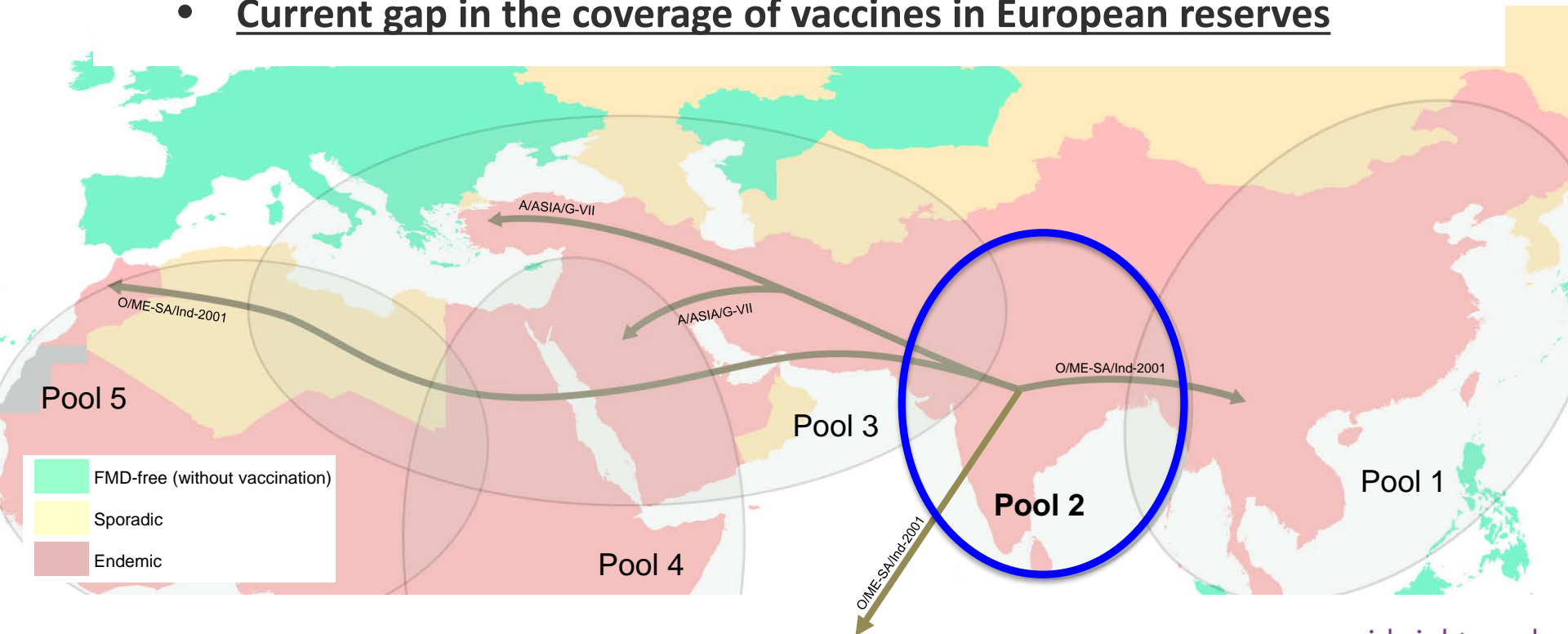
- Seven FMDV serotypes
- **Seven endemic pools** requiring tailored diagnostics and vaccines



- New FMD-free zone (without vaccination) established in northern Kazakhstan and **Russia (except a new containment zone – associated with an outbreak in October 2016)**
- No reported outbreaks in South America since **2013 (Venezuela)**
- No serotype C outbreaks since 2004

Long-distance “trans-pool” movements from Pool 2

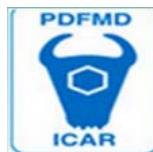
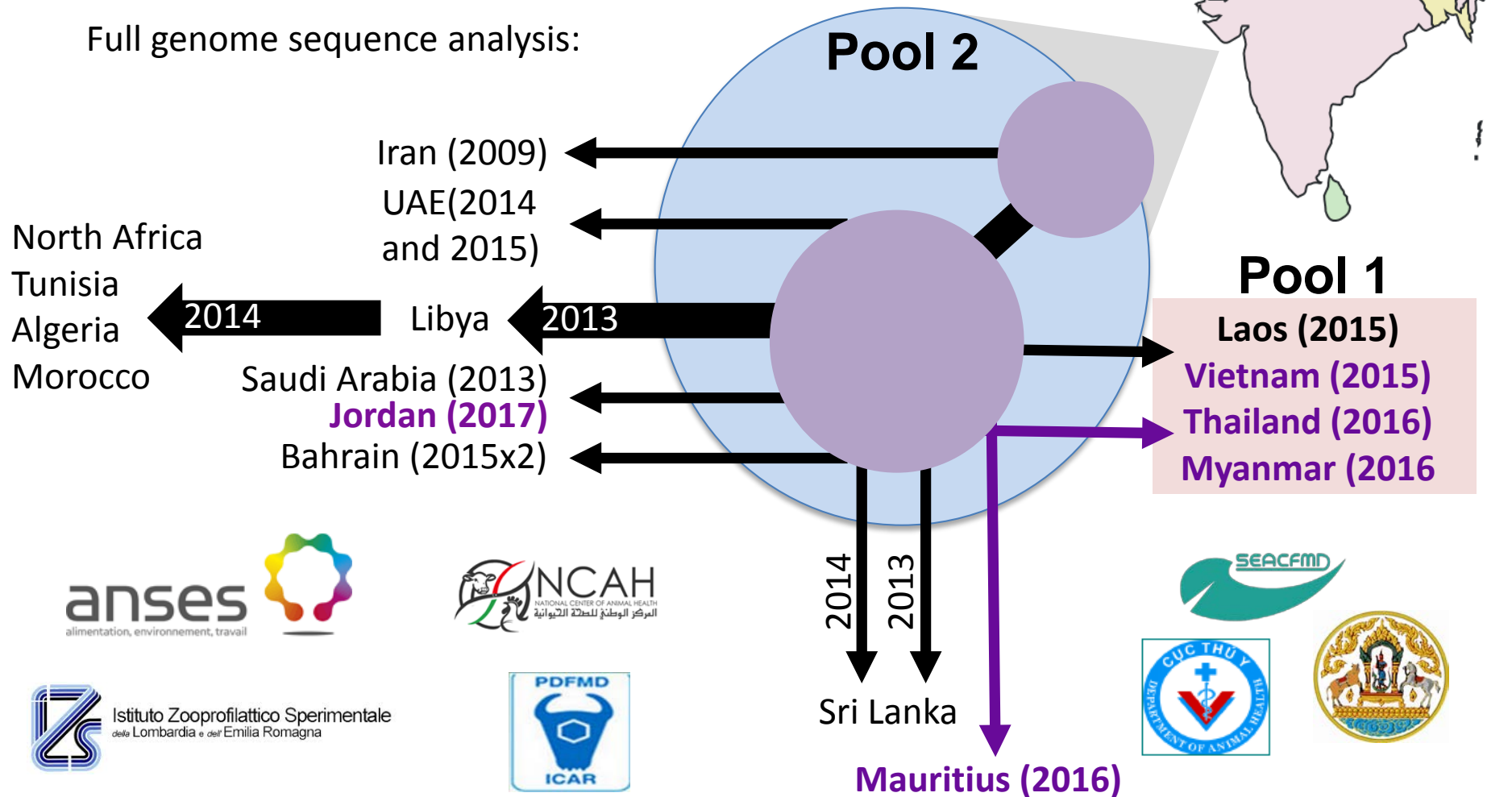
- **O/ME-SA/Ind-2001d**
 - Emerged in 2013
 - Expanding range of this lineage (East Asia and Middle East)
- **A/ASIA/G-VII**
 - Emerged in 2015
 - Rapid spread in parts of West EurAsia
 - Current gap in the coverage of vaccines in European reserves



O/ME-SA/Ind-2001d: the new PanAsia?

Sequence data indicates that there have been multiple “escapes” from the Indian sub-continent

Full genome sequence analysis:



O/ME-SA/Ind-2001d:

Onward transmission from POOL 1?

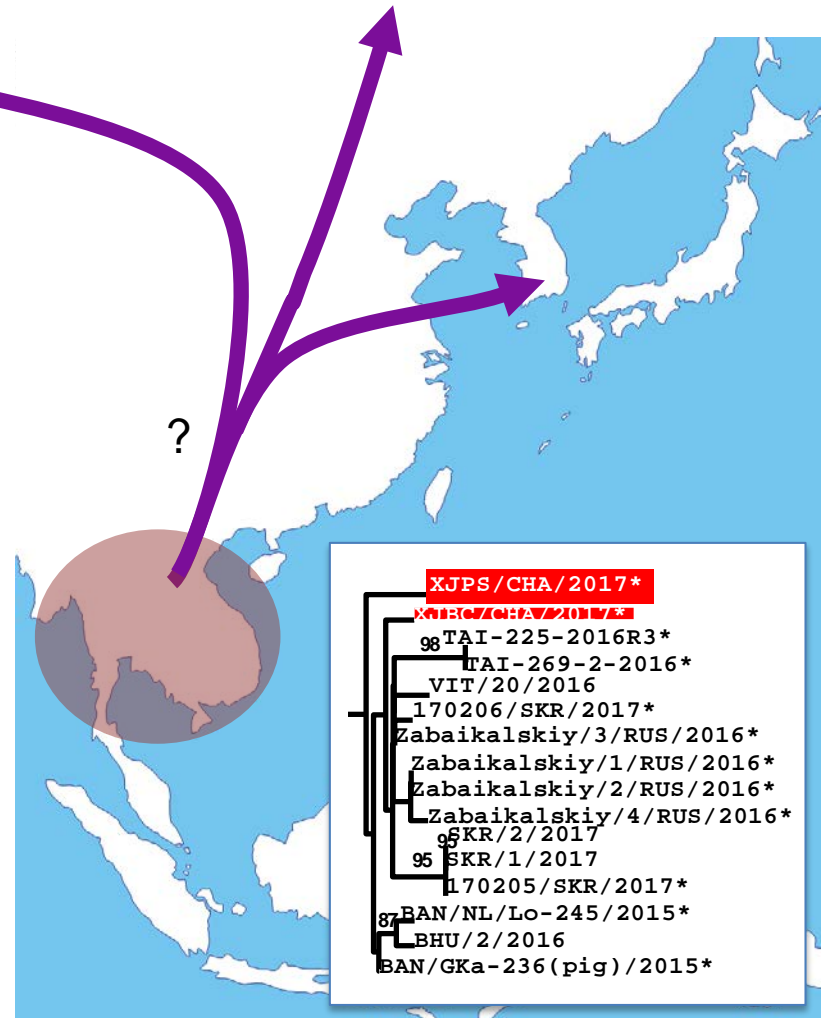
Russian Federation

- November 2016
- Three outbreaks
- Cattle
- Close to the Chinese border



Republic of Korea

- February 2017
- Eight outbreaks
- Cattle
- Other outbreaks in the country due to A/ASIA/Sea-97



Can this lineage now be found elsewhere in the East Asia region?

Reported at SEACFMD: China (Xinjiang Province in western China)

Vaccines for O/ME-SA/Ind-2001

in vitro vaccine matching:

42 field isolates from Africa, Middle East and southeast Asia:

O 3039	O ₁ Manisa	O/TUR/5/2009
Mostly matched 86%	Some Matches 33%	Almost all matched 95%

Potency testing in cattle:

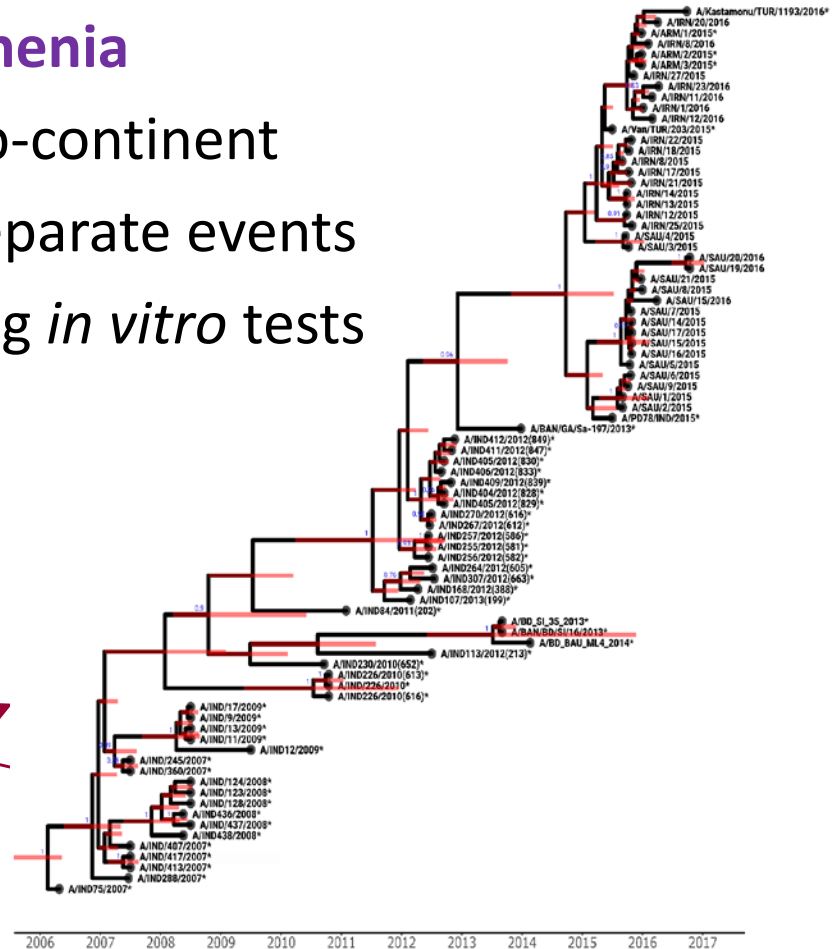
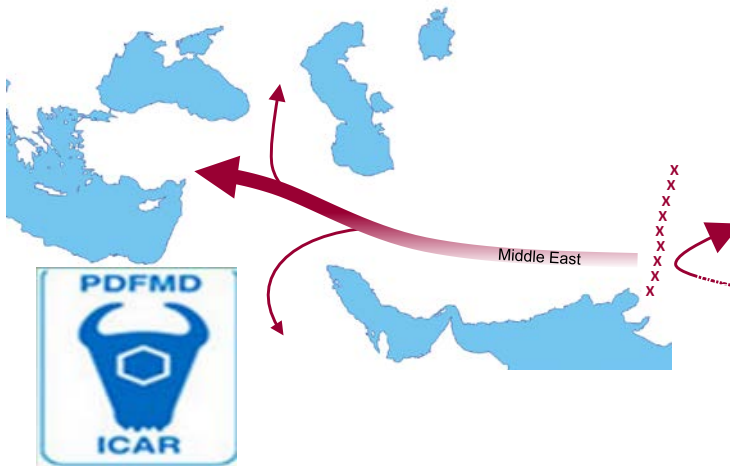
- PD50 study [CVL/WRLFMD/IZSLER]
 - O-Manisa – heterologous protection $\sim 3PD_{50}$
- Emergency Vaccination [CSIRO]
 - O-Manisa
 - O-3039



Many vaccine supplier use multivalent vaccines

Serotype A outbreaks in West EurAsia (A/ASIA/G-VII)

- Initial reports September 2015
- **Saudi Arabia, Turkey, Iran, Armenia**
- Originating from the Indian sub-continent
 - Evidence for at least two separate events
- Very poor antigenic match using *in vitro* tests



A/ASIA/G-VII

Poor *in vitro* match to many commercial vaccines

Vaccines

Recent
r-values:

	A/SAU/1/2015	A/SAU/2/2015	A/IRN/8/2015	A/IRN/12/2015	A/IRN/25/2015
A-Iran-05	0	0	0	0	0
A-Tur-20-06	0.03	0.06	0.01	0.15	0.01
A-22	0.11	0.11	0.13	nd	0
A-Iran-87	0	0.04	nd	nd	nd
A-Iran-96	0.04	0.06	nd	nd	nd
A-Iran-99	0.01	0.01	nd	nd	nd
A-Sau-95*	0.20	0.19	0.26	0.16	nd
A-May-97	0.14	0.23	0.15	0.23	nd
A-Tur-11	0.01	nd	0.10	0.04	nd
A-Tur-14	0	nd	0	0	nd
A-IND-40-2000*	0.26	nd	0.03	0.24	nd

* Multiple BVS tested

A/ASIA/G-VII

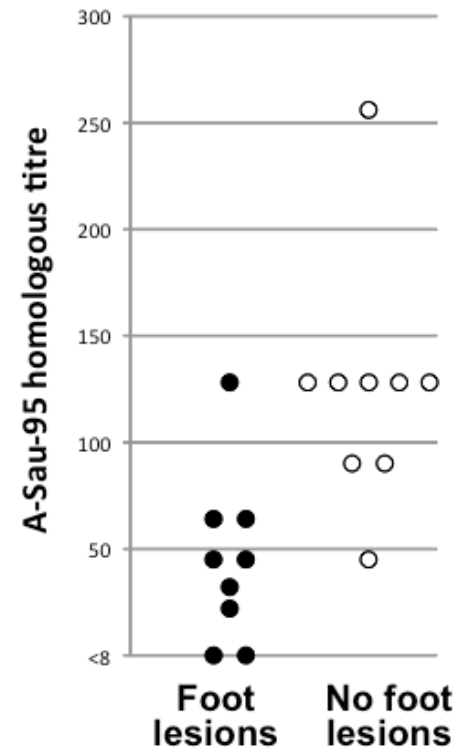
Summary of two *in vivo* vaccine/challenge experiments

April 2016:

- PPG study design
- Multivalent vaccine containing A-Sau-95 and A-Irn-05
- A-Sau-95 titres (measured by VNT) correlated with protection
- 7/16 vaccinates developed foot lesions (only **56% protection***)

December 2016:

- Pilot trial to evaluate two additional monovalent FMDV vaccines (from Merial) – A22 and A/May/97
- A22 (**28% protection**)
- A/May/97 (**72% protection***)



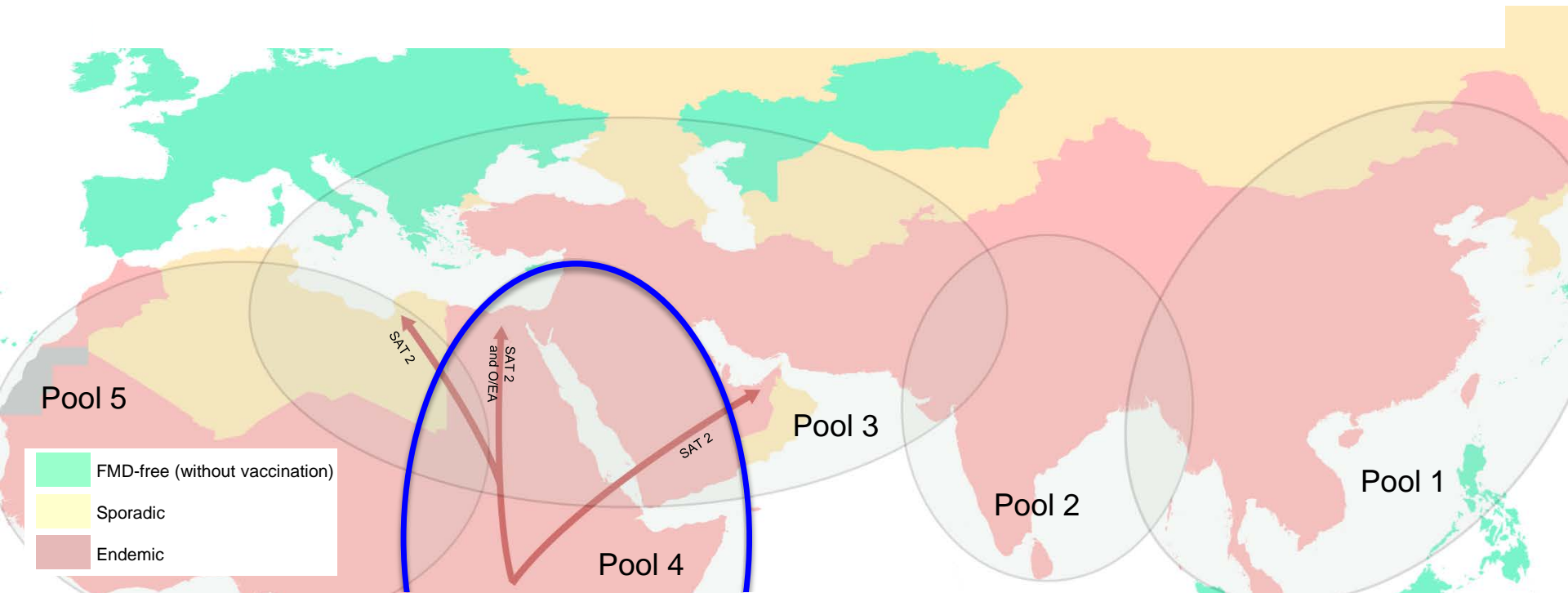
*OIE guidelines 75% is required

Long-distance “trans-pool” movements

- SAT 2 (topotype VII)
 - 2015 – outbreaks in Oman
 - Continued cases in Egypt

More recent examples...

- O/EA-3 (in Egypt [2016], Palestine [2017] and Israel [2017])
- A/AFRICA/G-IV (Algeria – April 2017)



O/EA-3 moving in to the Middle East

Israel/Palestine

- FMD cases in cattle in during February 2017
- Outbreaks in cattle in/close to the Gaza Strip
- Vaccine matching data:

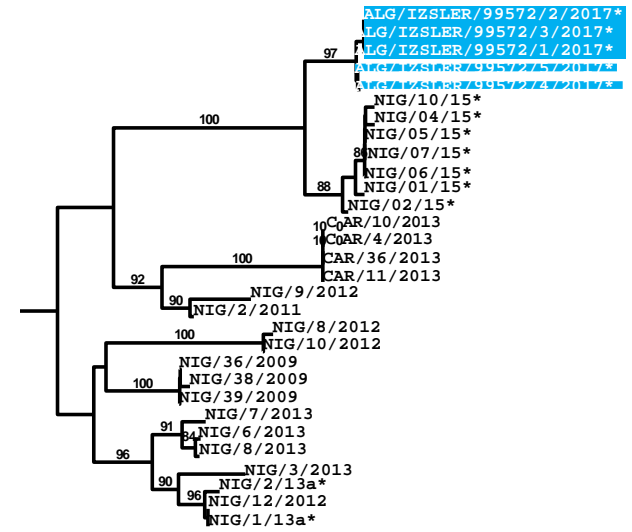
Sample	O-3039	O-Manisa	O/TUR/5/09
ETH/22/2013	0.40	0.18	0.81
ETH/3/2015	0.85	0.25	1.00
EGY/7/2016	0.27	0.35	0.11
NIG/4/2016	0.26	0.23	0.29
NIG/12/2016	0.66	0.60	0.51
NIG/19/2016	0.52	0.79	0.68
SUD/6/2012	0.38	0.22	0.35
SUD/4/2013	0.15	0.21	0.60

*Representative O/EA-3 data from different countries



Recent FMD cases in Algeria (end of March 2017)

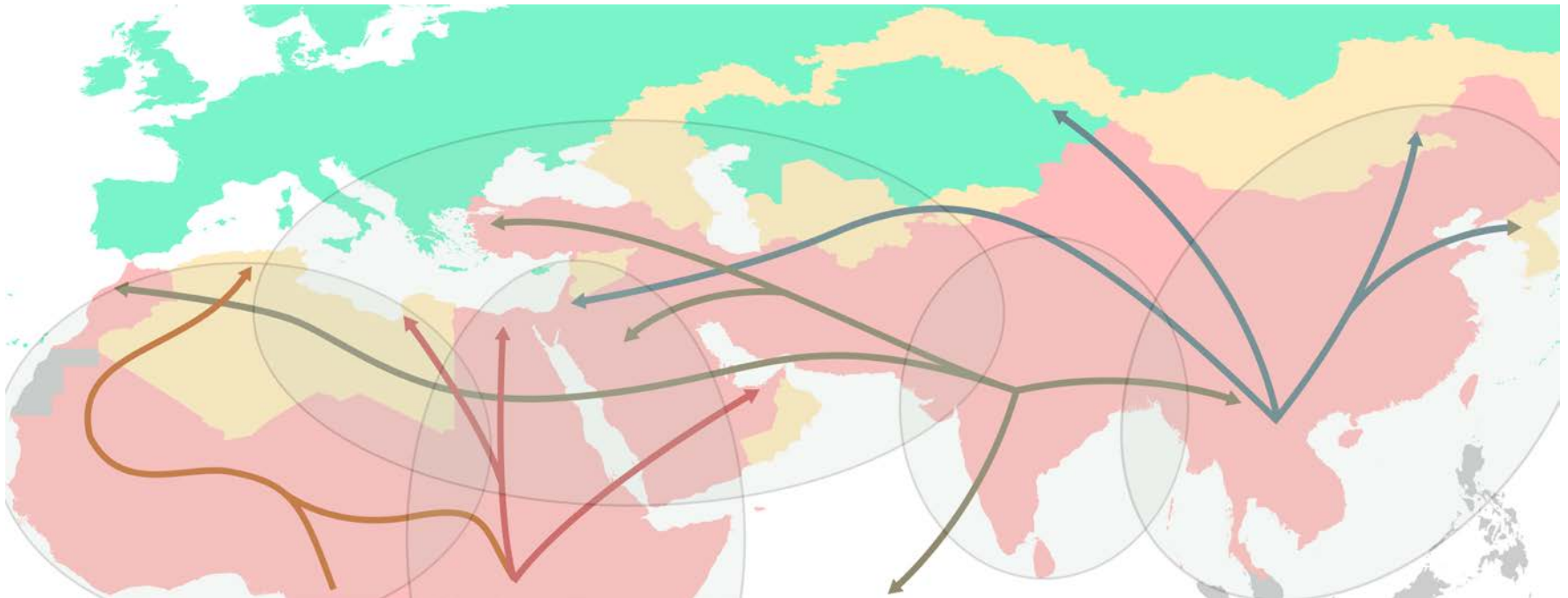
- 4 Outbreaks in cattle
- Due to a new FMD virus strain for the region (A/AFRICA/G-IV)
- Further reports of SAT 1 (not confirmed by the OIE Reference Laboratory in Brescia, Italy)
- *in-vitro* vaccine matching data for representative viruses from this lineage is not encouraging
- Yet another new threat for Europe?



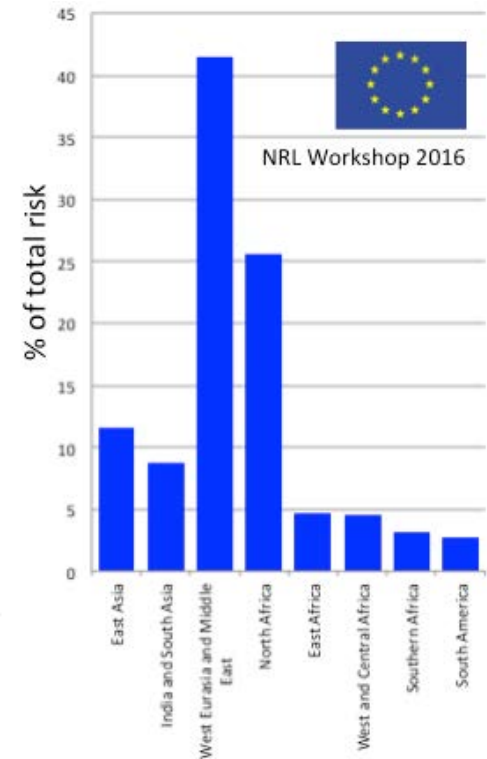
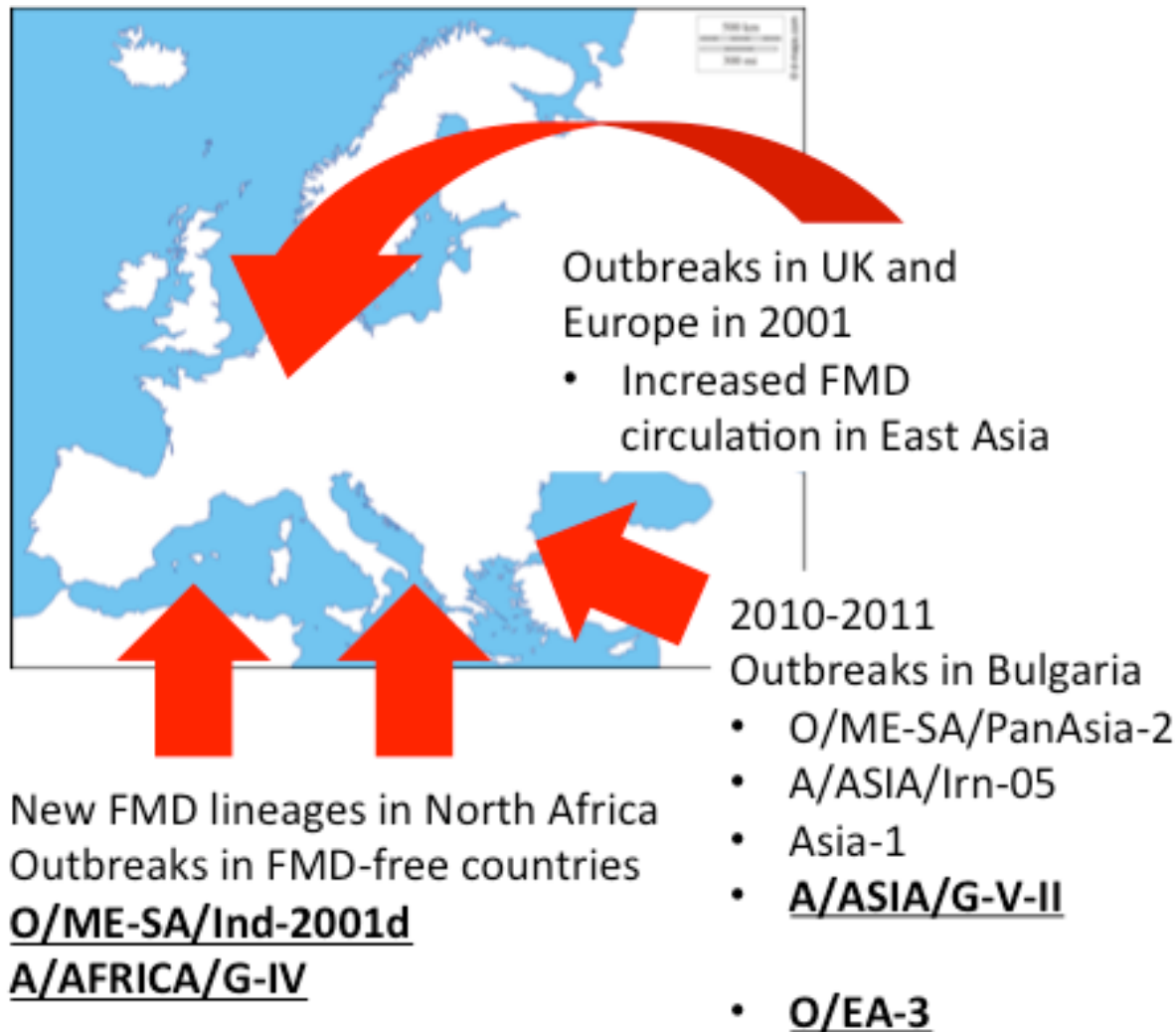
Long-distance “trans-pool” movements

Why now?

- Probably no single factor that underpins these dynamic transboundary patterns;
- although these long distance and rapid movements of FMDV are probably exacerbated by the escalation of regional political crises, and migration of people in North Africa and the Middle East and increased demand for animal products in East Asia.

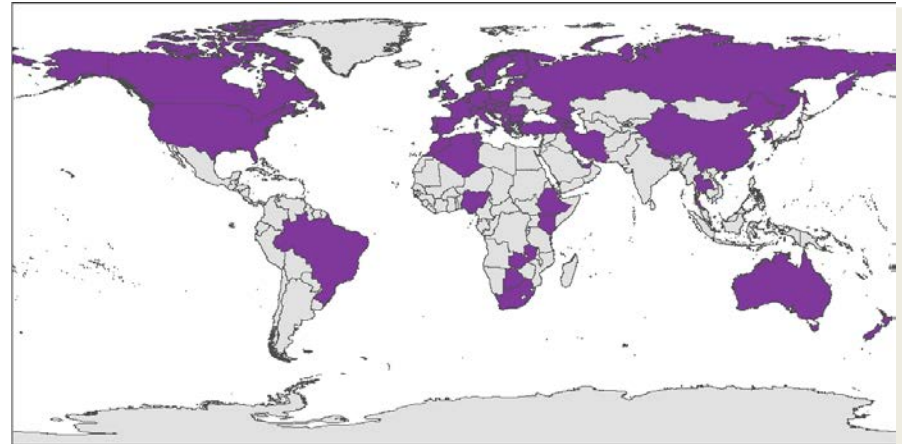


The threats to Europe – a quick summary



Annual Proficiency Testing Scheme

- To assist National FMD Laboratories to develop/improve accurate and reproducible FMD diagnostic tests
- QA requirements to support ISO/IEC 17025
- NRLs from all EU member states must participate
- Feedback (reiterative improvements to assays)
- Covers SVDV as well as FMDV
- Phase XXIX - reported in 2016 66 countries worldwide



PTS update

- As part of the LoA – EUFMD supports participation of labs in the PTS

- Global Network
- Non EU - EuFMD members
- Neighborhood states

Algeria, Armenia, Azerbaijan, Egypt, Lebanon, Montenegro, Morocco, Ukraine

- Performance generally good and improving in all laboratories against set criteria (4 categories)

	2015	2016
Total invited laboratories	91	91
Total number of shipments	66	66
Participants from European Union (funded by EURL for FMD)	27	27

EUFMD funded participants

Participants from Global Network Labs	Panaftosa Brazil, Pakchong Thailand, BVI Botswana, OVI South Africa, ARRIAH Russia, NVRI Nigeria, LNERV Senegal, Emabakasi FMD laboratory Kenya, NAHDIC Ethiopia, USDA USA ³	Panaftosa Brazil, Pakchong Thailand, BVI Botswana, OVI South Africa, ARRIAH Russia, NVRI Nigeria, Emabakasi FMD laboratory Kenya, NAHDIC Ethiopia, USDA USA ³
% of labs meeting target performance	Cat-1 0% Cat-2 10% Cat-3 60% Cat-4 30%	Cat-1 0% Cat-2 0% Cat-3 64% Cat-4 36%
Participants from EuFMD Member states (non-EU)	Albania, Georgia, FYRO Macedonia, Israel, Norway, Serbia, Switzerland, Turkey	Albania, Georgia, FYRO Macedonia, Norway, Serbia, Switzerland, Turkey
% of labs meeting target performance	Cat-1 0% Cat-2 0% Cat-3 88% Cat-4 13%	Cat-1 0% Cat-2 0% Cat-3 67% Cat-4 33%
Participants from neighbourhood countries	Algeria, Armenia, Azerbaijan, Egypt, Lebanon, Montenegro, Morocco, Ukraine	Algeria, Armenia, Azerbaijan, Iran, Lebanon, Moldova Montenegro, Morocco, Tunisia
% of labs meeting target performance	Cat-1 0% Cat-2 0% Cat-3 63% Cat-4 38%	Cat-1 0% Cat-2 0% Cat-3 78% Cat-4 22%

Summary of EUFMD funded participants

Invited	36	36
Total number of participants funded by EUFMD	26	26

* Self funded

Talk summary

- Epidemiology of FMD is very dynamic
 - Sampling of field outbreaks is critical
 - New unpredictable patterns in Asia (East and West) and North Africa
 - Established lineages within serotypes O, A, and Asia-1
 - Emerging lineages within serotypes O, A, and SAT 2
 - Threats to FMD-free countries in Europe and Turkish Thrace
 - Impact upon selection and deployment of vaccines
 - Multiple FMDV lineages may have different epidemiological features
- Importance of an active FMD Reference Laboratory Network to facilitate sample collection from FMD outbreaks in the field– to feed real-time lab data back to FMD control programmes

Thanks...

- Support for the WRLFMD and research projects
- Collaborating FMD Reference Laboratories and field teams
- Partners within the OIE/FAO FMD Lab Network



Department
for Environment
Food & Rural Affairs



Vaccine Bank Recommendations (April 2017)

High Priority

A/ASIA/G-VII(G-18)*

O Manisa

O PanAsia-2 (or equivalent)

O BFS or Campos

A24 Cruzeiro

Asia 1 Shamir

A Iran-05 (or A TUR 06)

A22 Iraq

SAT 2 Saudi Arabia (or equivalent i.e. SAT 2 Eritrea)

Medium Priority

A Eritrea

SAT 2 Zimbabwe

SAT 1 South Africa

A Malaysia 97 (or Thai equivalent such as A/Sakolnakorn/97)

A Argentina 2001

O Taiwan 97 (pig-adapted strain or Philippine equivalent)

Low Priority

A Iran '96

A Iran '99

A Iran 87 or A Saudi Arabia 23/86 (or equivalent)

A15 Bangkok related strain

A87 Argentina related strain

C Noville

SAT 2 Kenya

SAT 1 Kenya

SAT 3 Zimbabwe

*Recent in-vitro data from WRLFMD for serotype A viruses from Saudi Arabia and Iran highlights an apparent gap in vaccine coverage. Work is urgently required to evaluate whether there is adequate in-vitro match with Indian vaccine strains (A/IND/40/2000) or whether in-vivo protection may be provided by high potency international vaccines.

The OIE-FAO Global Strategy: progress over the first 5 years

Berhe G. Tekola

Director of the Animal Production and Health Division (FAO)

Matthew Stone

Deputy Director General for International Standards and Science (OIE)



Food and Agriculture
Organization of the
United Nations



GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, preserving our future

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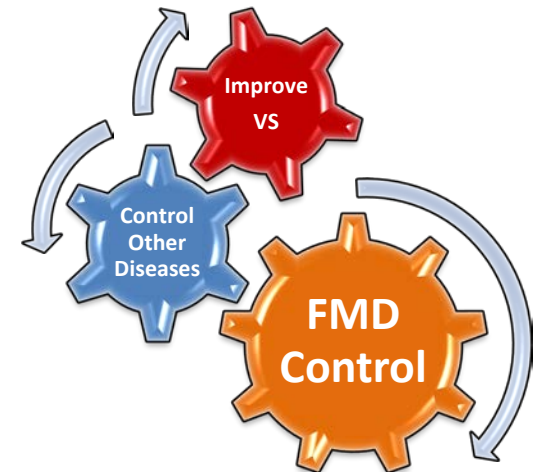
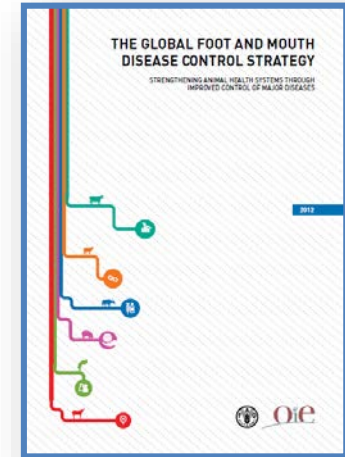
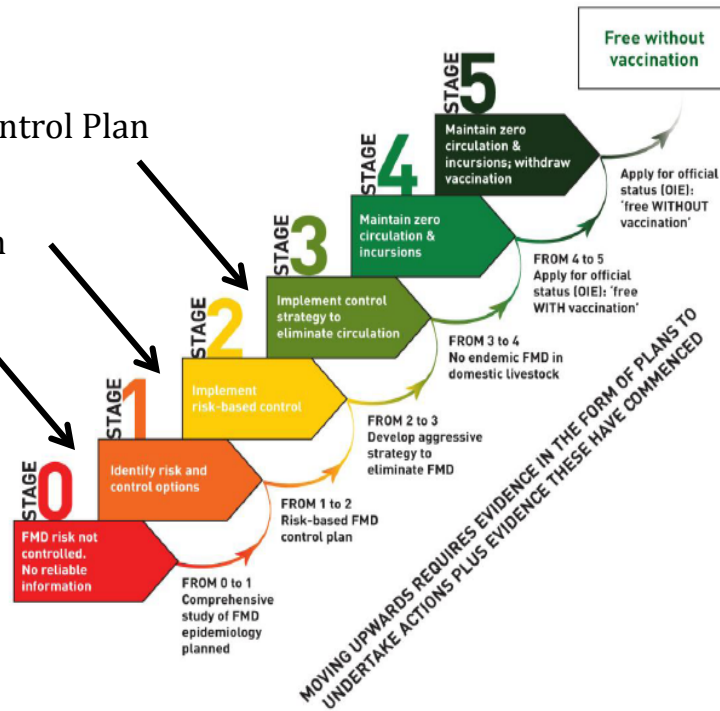
- PROGRESS MADE:
 - Implementation of the Global FMD Control Strategy: Progress over the last five years
 - Resource documents
- CHALLENGES and priorities for the next years

PROGRESS MADE: IMPLEMENTATION OF THE GLOBAL STRATEGY

GLOBAL CONTROL STRATEGY OF

FMD

- National Control Plan
- Risk-based Strategic Plan
- Risk Assessment Plan



FMD Global Strategy

Global, National and Regional Approach

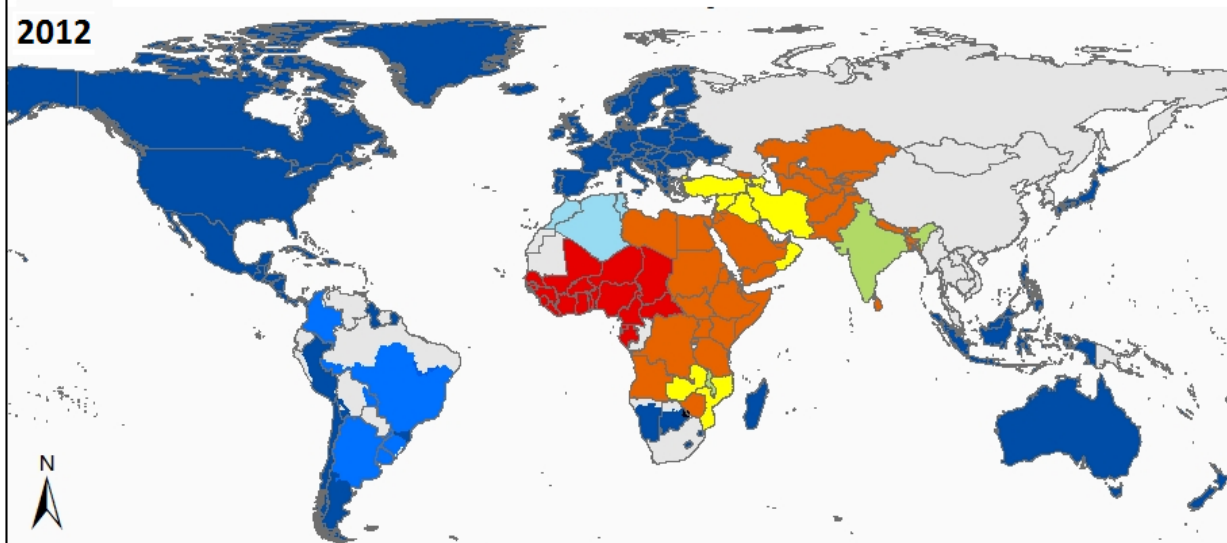
Global	Regional	National
GF-TADs FMD WG Developed the GS and coordinates its implementation	Regional roadmap meetings for country assessment and capacity building	Use of PCP-FMD guidelines as tool for implementation Strengthen Veterinary Services Support other TADs
Global Network: <ul style="list-style-type: none">• Network of FAO/OIE FMD Reference Lab• Global Expert Group	Support regional laboratory and epidemiology networks + meetings	Countries' investment and control plans (FAO, OIE, EuFMD and donor support)
Development of resource documents	Regional proficiency test panels	Performance of veterinary services (PVS)
	Promote regional collaboration and transparency, including cross border issues	Promotion of success stories and in country support.

FMD Global Map 2012 & 2017

Evolution of FMD global situation between May 2012 and January 2017

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

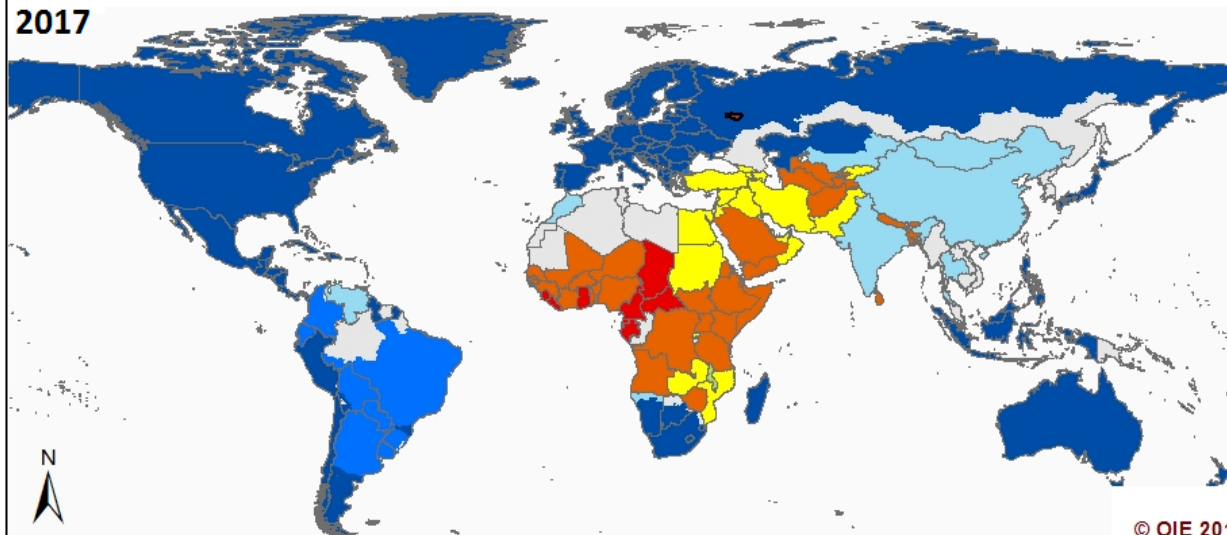
2012



OIE official status and endorsed programmes

- Member Countries and zones recognised as free from FMD without vaccination
- Member Countries and zones recognised as free from FMD with vaccination
- Official control programme endorsed by the OIE
- Containment zone within a FMD free zone without vaccination

2017

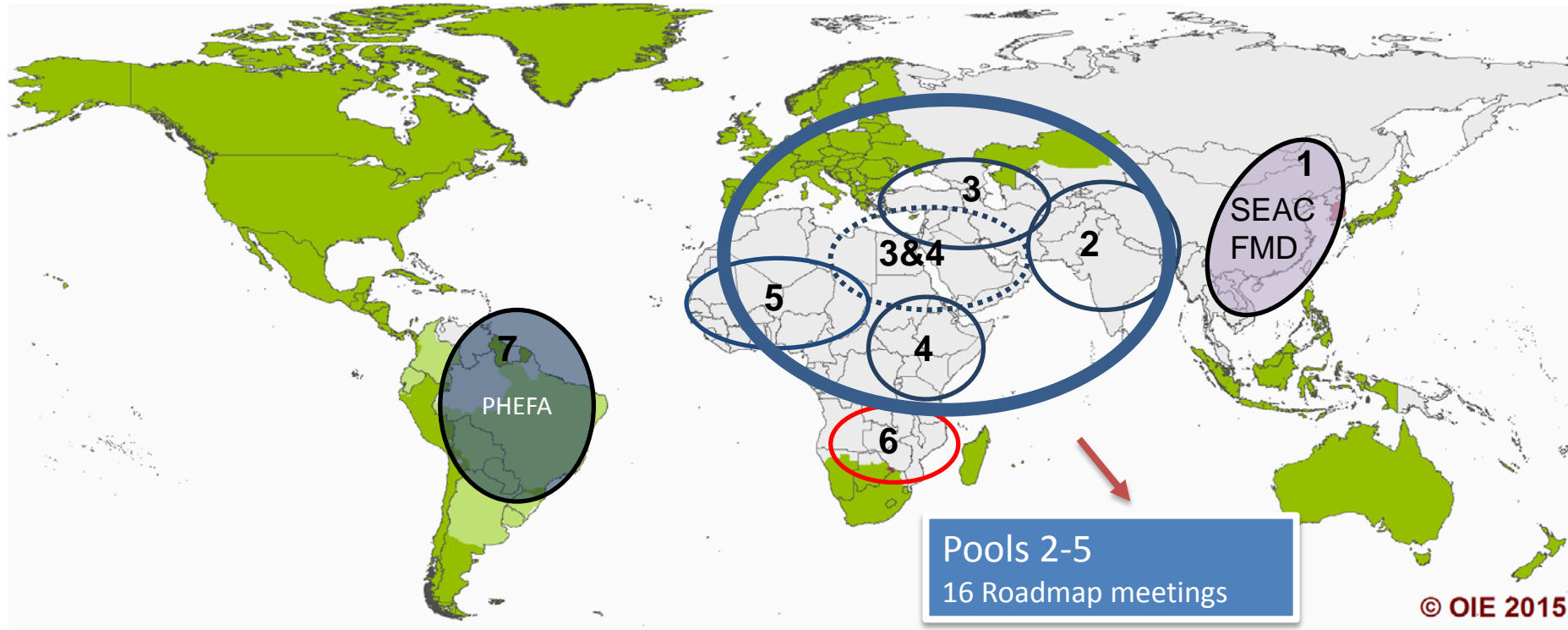


PCP stages

- 0
- 1
- 2
- 3
- 4
- 5



Regional Roadmap Meetings Convened Since 2012



Member Countries/zones recognised as free from FMD without vaccination

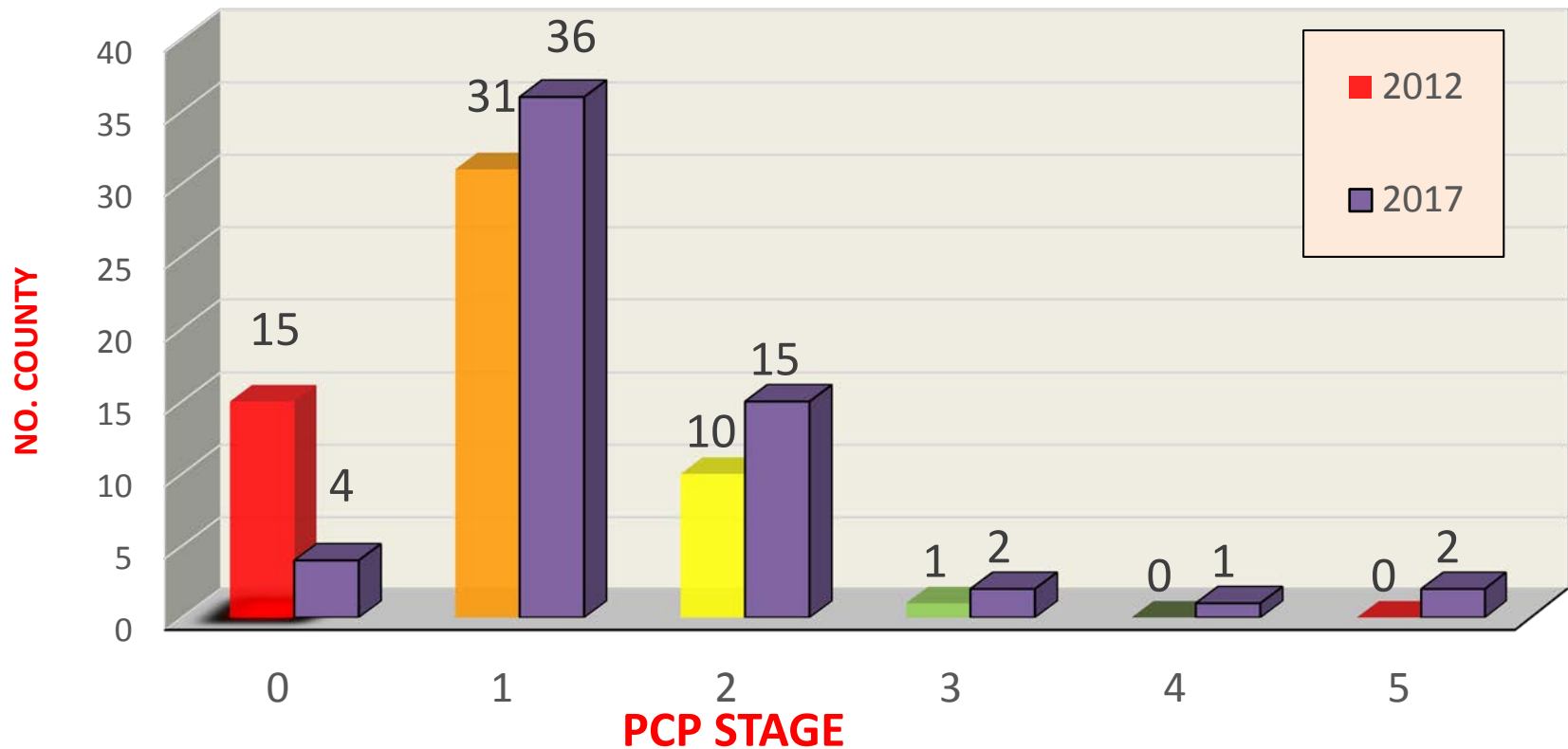
Member Countries/zones recognised as free from FMD with vaccination

Suspension of the status free without vaccination

Suspension of the status free with vaccination

Countries/zones without an OIE official status for FMD

PCP-FMD Country Status (Total= 59)



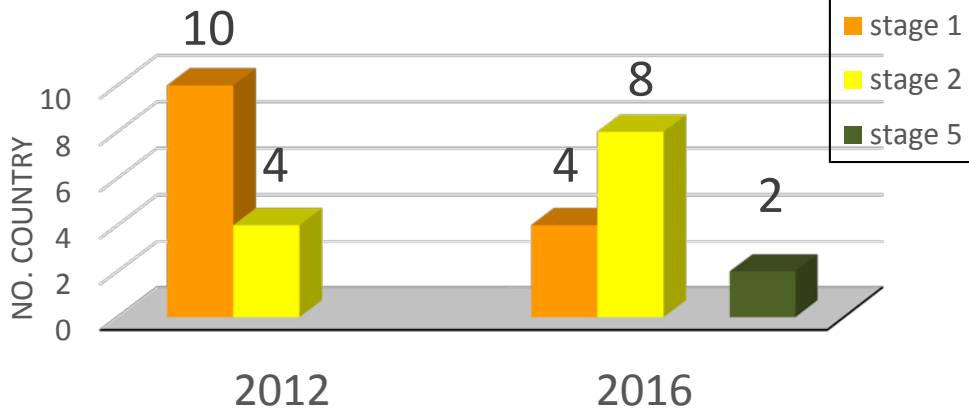
12-14 countries

West Eurasia

Countries	Assessed										Foreseen							
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Afghanistan <i>(absent in Bishkek)</i>	0	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	4
Armenia	2	2	2	2	2	2	2*	2*	2	2	3	3	3	3	4	4	5	5
Azerbaijan	2	2	2	2	2	2	2*	2*	2	2	3	3	3	3	3	3	4	4
Georgia	2	1	1	1	1	1	2*	2	2	2	3	3	3	3	4	5	5	5
Iran	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	4
Kazakhstan (5 southern regions)	1	1	1	1	1	1	2*	***	***									
Kazakhstan (9 norther regions)	1	1	1	1	1	1	2*	**	5	5	5	5	5	5	5	5	5	5
Kyrgyzstan	1	0	0	0	1	1	2*	2*	2*	3	3	3	4	4	5	5	5	5
Pakistan	0	1	1	1	1	1	2*	2	2	2	2	3	3	3	3	3	4	4
Tajikistan	0	1	1	1	1	1	1	1	1	2	3	3	4	4	4	4	4	4
Turkey (Thrace)									5	5	5	5	5	5	5	5	5	5
Turkey (Anatolia/Marmara-Aegean)									2	3	3	4	4	4	4	4	5	5
Turkey (Remaining Anatolia)	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	4	4	4
Turkmenistan	0	0	0	0	1	1	1	1	1	2	2	2	2	3	3	4	4	5
Uzbekistan <i>(absent in Bishkek)</i>	0	1	1	1	1	1	1	1	1	2	3	3	3	4	4	5	5	5

Assessed by RAG Middle-East

Iraq	1	1	1	1	1	2*	2*	2*
Syria	1	1	1	1	1	2*	2*	2*



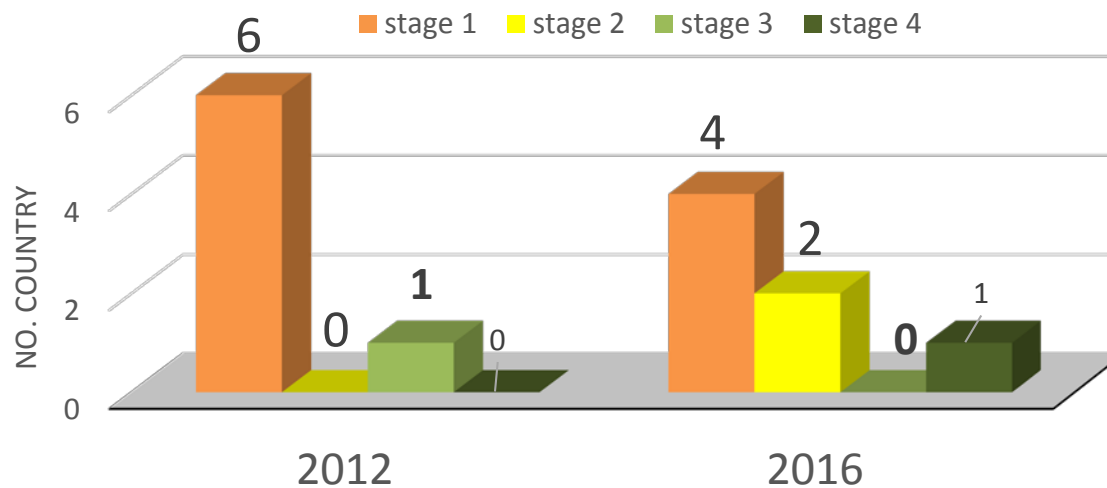
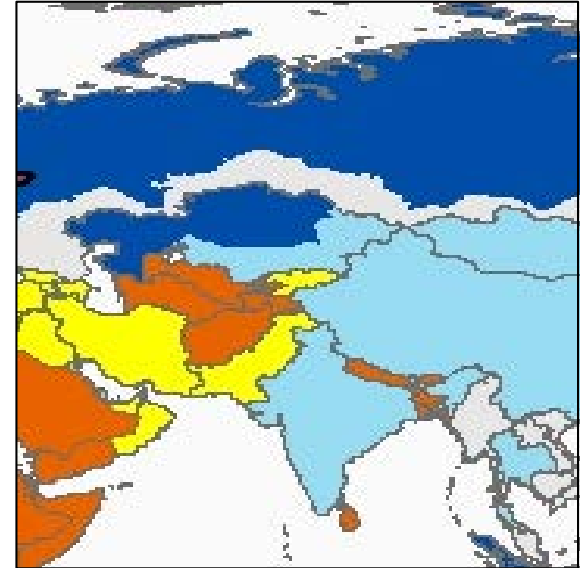
Epi and Lab Network Meetings

- Pilot in West Eurasia, September 2017
- Regional Advisory Group involved in the development of the agenda
- Agenda with merged sessions of common interest, and parallel sessions for the epidemiology network and the laboratory network
- Key topics to be covered based on gaps identified during previous roadmap meetings

7
Countries

South Asia

SAARC



13 countries

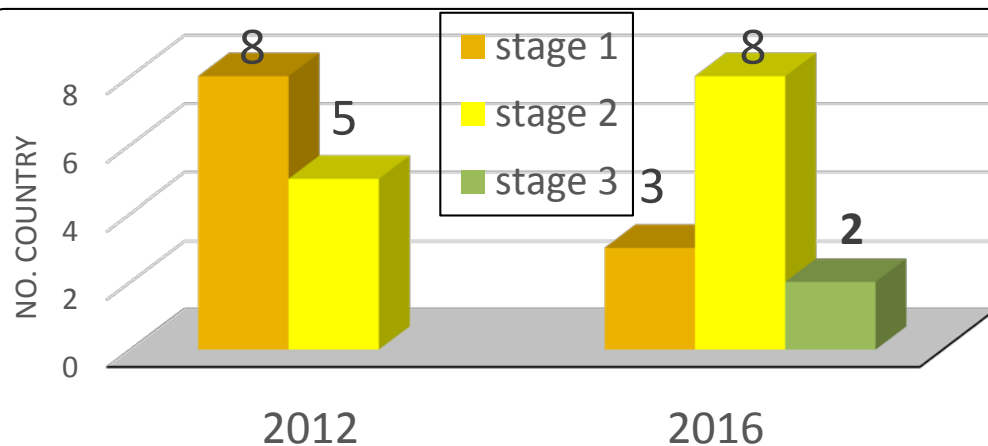
Middle East

assessed

foreseen

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Bahrain	1	2	2	2*	3	3	3	4	4	4
Egypt	1	1	2*	2*	2	2	2	2	3	3
Iraq	2	2	2*	2*	2	2	2	2	3	3
Jordan	1	1	2*	2*	2	3	3	3	4	4
Palestine ¹			1							
Kuwait	2	2	3	3*	3	4	4	4	5	5
Lebanon	1	1	2*	2*	2	3	3	4	4	4
Oman ¹	2	2	2*							
Qatar	2	2	3*	3*	3	3	4	4	4	4
Saudi Arabia	1	1	2*	2*	2*	3	3	3*	4	4
Syria ¹	2	2	2*							
UAE	1	1	2	2	3	3	3	4	4	4
Yemen ¹	1	1	1*							

¹Countries absent from the roadmap meeting and not assessed in 2015



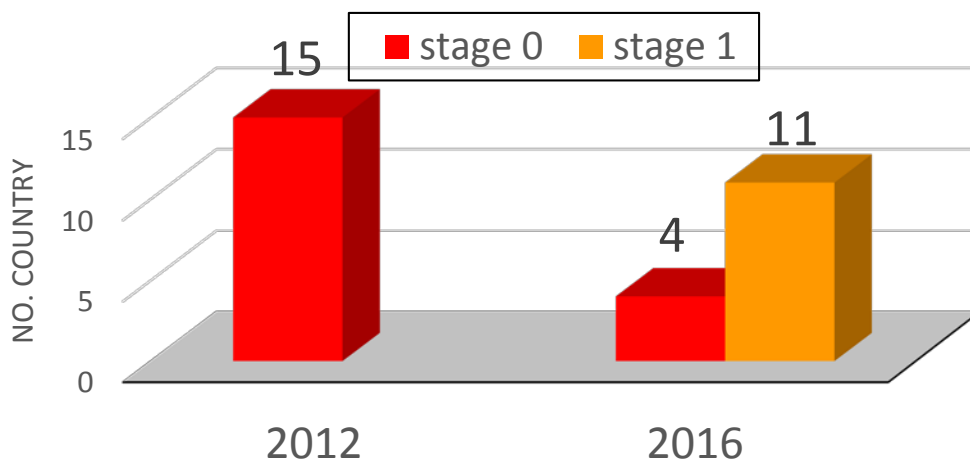
15
Countries

West Africa

assessed

foreseen

Country	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Benin	1*	1	1	1	1	2	2	2	2	3
BF	1*	1	1	2	2	2	3	3	3	3
Cape V	0	0	0	1	2	3	3	4	5	5
RCI	1*	1	1	1	1	2	2	2	2	3
Gambia	1	1	1	1	1	1	1	1	1	2
Ghana	0	1	2	2	2	3	3	3	3	4
Guinea	1*	1	1	1	2	2	3	3	4	5
Guinea B	1*	1	1	2	2	2	4	4	4	4
Liberia	0	1	1	2	2	3	3	4	4	4
Mali	1	1	1	1	2	2	2	3	3	3
Niger	1*	1	1	2	2	2	2	2	3	3
Nigeria	1	1	2	2	2	3	3	3	4	4
Senegal	1	1	1	2	2	2	3	3	3	4
Sierra L	0	1	1	1	2	2	3	3	4	4
Togo	1*	1	2	2	2	2	2	3	3	4



12
Countries

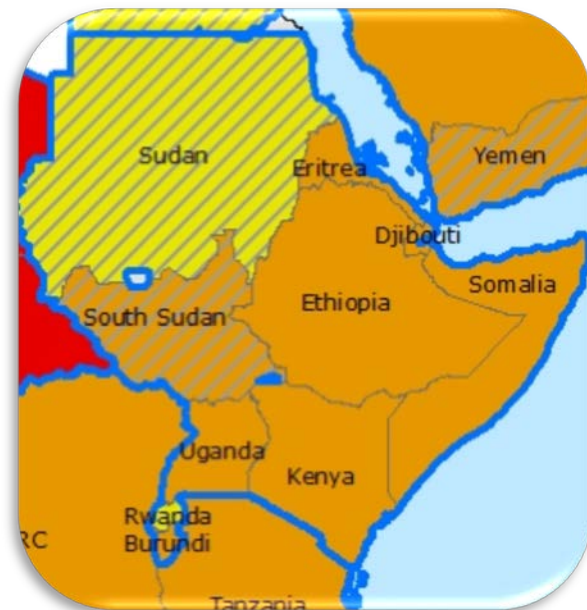
East Africa

assessed

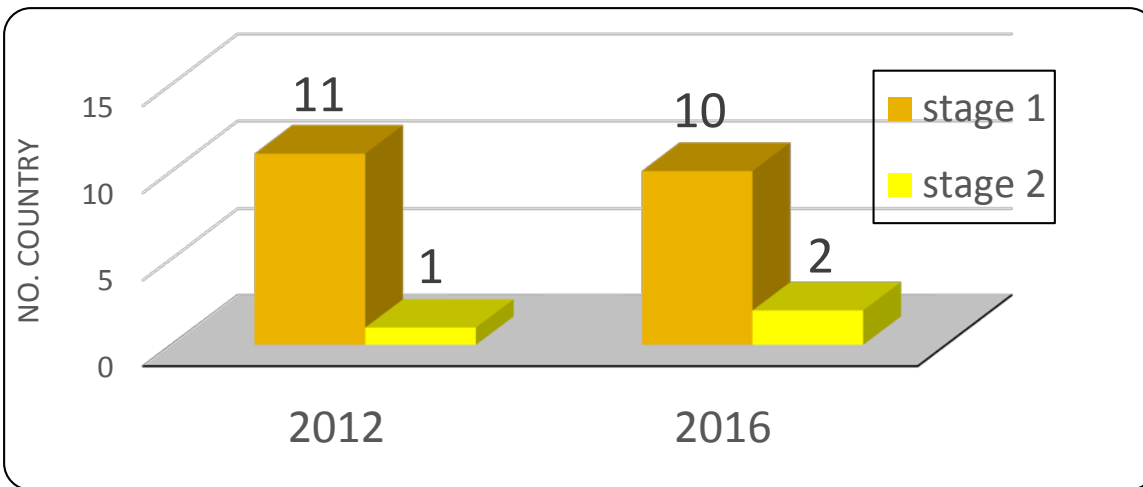
foreseen

Country	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Burundi	1	1	1	2	2	2	3	3	3	4	4
Djibouti	1	1	1	2	2	2	3	3	3	4	4
DRC	1	1	1	1	2	2	2	3	3	4	4
Eritrea	1	1	1	1	2	2	3	3	3	4	4
Ethiopia											
Kenya	1	2	2	2	2	2	3	3	3	4	4
Rwanda	2	2	3	3	3	4	4	4	4	4	4
Somalia	1	1	1	1	2	2	2	2	2	2	2
South Sudan	1*	1	1	1	1	1	1	1	1	2	2
Sudan	2*	2	2	2	3	3	3	3	3	4	4
Tanzania	1	1	2	2	2	2	3	3	3	4	4
Uganda	1	1	2	2	2	3	3	3	3	4	4

*Provisionally accepted



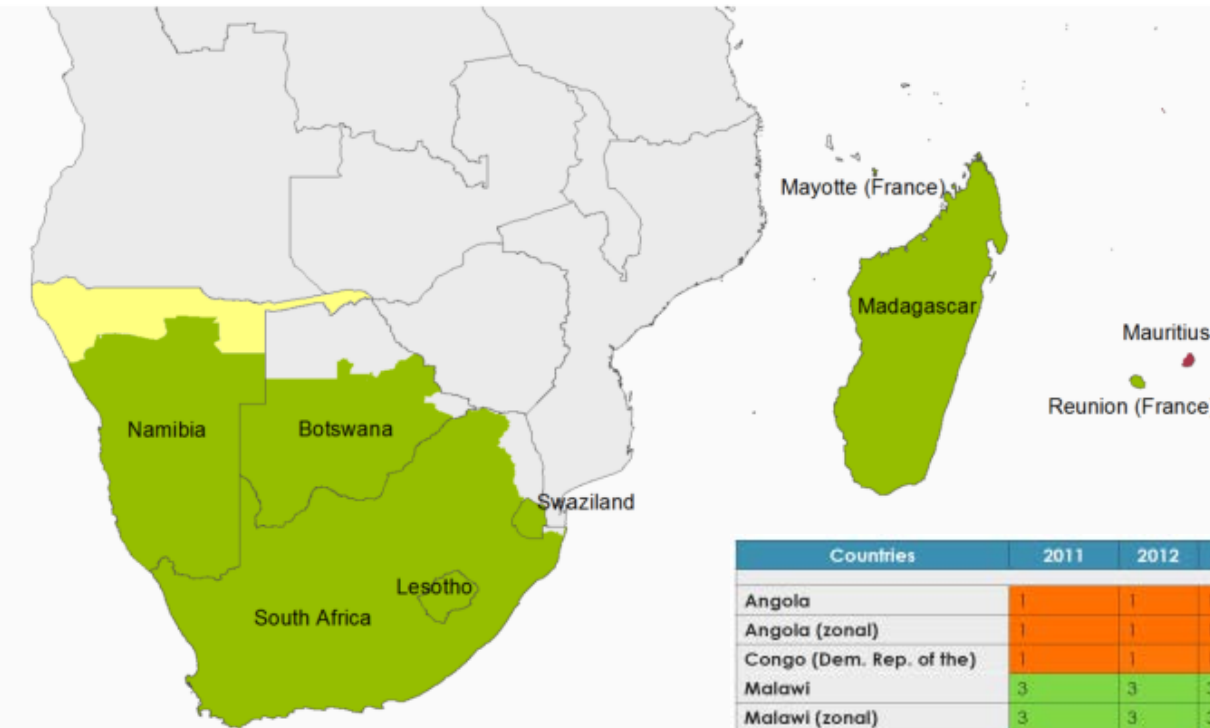
Present



Southern Africa

SOUTHERN AFRICA: OIE Member Countries' official FMD status map

Last update August 2016



Roadmap in 2011

■ Member Countries and zones recognised as FMD free without vaccination

■ Suspension of FMD free status without vaccination

Countries	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Angola	1	1	1	2	2	2	3	3	3	3
Angola (zonal)	1	1	1	2	2	3	3	4	4	4
Congo (Dem. Rep. of the)	1	1	1	1	2	2	2	2	2	3
Malawi	3	3	3	3	3	3	3	3	3	3
Malawi (zonal)	3	3	3	4	4	4	4	4	4	4
Mozambique	2	2	3	3	3	3	3	3	3	3
Mozambique (zonal : Tete, Manica)	2	2	3	3	3	5	5	5	5	5
Mozambique (zonal : south)	2	2	3	3	4	4	4	4	4	4
Seychelles	hist.freed.	5	5	5	5	5	5	5	5	5
Tanzania	1	1	2	2	2	3	3	3	3	3
Tanzania (zonal : mainland)	1	1	2	2	2	3	3	4	4	4
Tanzania (islands : Zanzibar, Pemba)	1	1	2	3	3	4	4	4	4	4
Zambia	2	2	3	3	3	3	3	3	3	3
Zambia (zonal)	2	2	3	3	4	4	5	5	5	5
Zimbabwe	1	2	3	3	3	3	3	3	3	3
Zimbabwe (zonal)	1	2	3	3	3	4	4	5	5	5

PROGRESS MADE: RESOURCE DOCUMENTS

FMD vaccination and Post-vaccination Monitoring Guidelines



GF-TADs
GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



What is next?

FAO-OIE Press release, pocket guide, training sessions, backstopping

Other resource documents



- Revision of the PCP tool, including Components 2 and 3 of the Strategy (in final stage)
- Template for the Risk Assessment Plan (first draft developed and commented)
- Template for risk-based strategic plan (developed and revised)
- Revision of the check-lists and development of a template for national control plan (to be initiated)

Available soon on GF-TADs website



GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health

[ABOUT](#)[EVENTS](#)[GLOBAL](#)[REGIONAL](#)[RESOURCES](#)[LINKS](#)[▶ OBJECTIVES](#)[▶ PRIORITY DISEASES](#)[▶ AGREEMENT](#)[▶ GOVERNANCE](#)

The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) was launched on May 24, 2004, the signing date of the "FAO-OIE GF-TADs general agreement".

GF-TADs is a joint initiative of FAO and OIE, with the expected participation of WHO for the zoonoses, to achieve the prevention, detection and control of transboundary animal diseases (TADs) and in particular to address their original and global dimensions. The initiative combines the strengths of both international organizations to achieve agreed common objectives.

GF-TADS FOR

[GLOBAL](#)[AFRICA](#)[AMERICAS](#)[ASIA](#)[EUROPE](#)[MIDDLE EAST](#)

CHALLENGES AND PRIORITIES FOR THE NEXT YEARS

Challenges

national, regional and global levels

- Disengagement of political will and shortage of resources at national, regional and international levels
- Inadequate stakeholders engagement
- Insufficient risk assessment and risk management skills
- Limited diagnostic capability and supplies
- Cross-border movement control and timely exchange of information between neighbouring countries are not harmonized
- Limited understanding of the socio-economic impact of the disease

Working Group workplan 2017-2018



GF-TADs
GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Strateg	Activity	2017		2018		Priori	Institutio	Champio	Comments
		1st Semester	2nd semester	1st Semester	2nd semester				
	Collection of Points of Contact (POC) (epi, lab)					1 WG		SR	
	Conduct POC E learning webinar (before each PHS)					1 EuFMD		RM Champions	
	POC train-the-trainer (FAO/ECDC officer)					1 All			
1.2	Workshop on socioeconomic					1 EuFMD/In-extend			3 months follow-up meeting
1.2	Guidelines on socioeconomic					2 consultation			
1.3 & 2.1	Expert missions to support development and implementation of RMP (countries to be selected)					1 EuFMD		RM Champions	on countries' request - EuFMD or GEG (but budget needed)
2.1 & 2.2	Expert mission to support development and implementation of RBSP (countries to be selected eg Portugal)					2 EuFMD		RM Champions	on countries' request - EuFMD or GEG (but budget needed)
1.4	Creation Regional secretariats in each RHM regions (TAFB)					2 WG		RM Champions	Priority may depend on the region
1.5.2	Creation of a Global Expert Group					2 WG		SR	
1.6.1	Second edition of POC guidelines					1 All			
1.6.1	Finalize guidelines RMP					1 All			
1.6.1	Drafting NCP template					1 All			
1.6.1	Finalize check list questionnaires					1 All			
1.6.1	Template for Interim Countries report (ppt)					1 WG			including components 2 & 3
1.6.1	Template for Roadmap report					1 WG		SR	
1.1.1	Create lab network in each region-leader nomination					2 WG		RM Champions	Considering the conclusion of the GF-TADs Roadmap-meet
1.1.1	Physical/electronic meeting of the network					2 WG + EuFMD			
1.1.1	Specific lab training (through lab network) (1)					2 WG + EuFMD			depending on regions
1.1.1	Conduct proficiency test (well-Eurolab?)					1 OIE/FAO Ref Lab			depending on regions
1.2.1	Each virus pool has at least one ref lab					1 Lab-network + WG			
1.2.3	Facilitate the procurement of reagents					2 EuFMD			
1.1.1	Specific epi training (through lab network) (PvS) (1)					2 EuFMD			
1.2.1	Create epi network in each region-leader nomination					1 WG			
1.2.1	Physical/electronic meeting of the network					2 WG + regions			
1.3.1	Describe integrational animal movement (RM)					1 Epi network			depending on regions
1.1.1	Facilitate sample submission to ref lab (characterisation and matching)					1 EuFMD			
1.1.3	Facilitate vaccine selection discussion (RM)					2 All			
1.2.1	Elaborate of high-quality vaccine					1 All			
1.1.1	Provide PVS during the RM and network meetings					1 WG			
1.2.1	Identify countries that need PVS mission					2 OIE			
1.1.2	Dissemination of Component 3 during RM					1 WG			
1.1.3	Document (peer review paper) success stories of integration of TAD control -Component 3					1 All			
1.1.1	Finalisation of the global report					1 All			
1.1.2	Identify and document champion in each region					2 WG			
1.1.3	Third global conference					2 WG			
1.2.1	Identify and doc knowledge gaps (peer-review)					1 All			Not sure I understand what you mean
1.1.1	Map potential donors					2 WG			Discuss with Hararirho at some stage
1.1.2	Identify and document a success story of private-public partnership					1 All			
	Enrich the GF-TADs Website					1 WG			

DRAFT

WG priorities for 2017/2018



- Continue strengthen collaboration with EuFMD and other partners
- Finalise the 2-year work plan, identifying priorities and specific areas where support will be needed.
- Develop guidelines and promote socio-economic studies
- Strengthen regional epi and lab networks
- Better understanding of the intra-regional animal movements
- Advocate for Component 3
- Prioritise support to countries in PCP Stages 0 & 1
- Maintain the momentum between roadmap meetings



Proposed Areas of collaboration with EuFMD next biennium

- **Capacity building** (E-learning / webinar):
 - before roadmaps and in-between roadmaps
 - on PCP and socio-economic (once the guidelines is developed)
 - on outbreak investigation (regional or national level)
 - on vaccination strategies
 - for the epi and the lab networks
 - for FAO/OIE regional officers and FMD experts
- Expert missions to support the development and implementation of national plans: RAP and RBSP (2-3/year)

Proposed areas of collaboration with EuFMD (2)

- Support to **GF-TADs FMD WG**
 - One dedicated staff to support the day to day activities: WG and regional meetings, guiding documents, reports and follow-up on regional recommendations
 - Liaise with the EuFMD secretariat
- Support and participate in **Roadmap meetings & network meetings**
- Support the development of **specific guidelines** (socio-economic guidelines, template for the National Control Plan, PCP checklists)
- Support procurement of diagnostic reagents and sample submissions

Progress

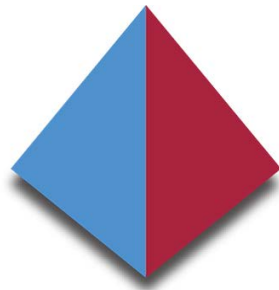
Global FMD Control Strategy

- Global FMD control is **feasible** and can be a driver to improve animal health systems, trade, nutrition and economic growth
- **System is established for assessing countries along the PCP**
- **PCP-FMD approach and reinforcement of veterinary systems are gradually gaining acceptance. Fifty nine countries are engaged and closely monitored with notable evidence of advancement**
- **Several countries developed and are implementing RBSPs**
- **A few countries advanced to OIE status**

Acknowledgments

- FAO Decentralized offices and ECTAD teams
- OIE HQs and regional and sub regional offices
- EuFMD secretariat
- Continental-Regional organizations: AU-IBAR, IGAD, EU
- Italian government for funding the FMD global secretariat, 2013-2015
- Former Members of the FMD WG: Jemi Domenech, Giancarlo Ferrari, Julio Pinto, Peter DeLeeuw, Nadège Leboucq

Thank you for your attention



GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



**FAO/OIE GLOBAL CONFERENCE ON
FOOT AND MOUTH DISEASE CONTROL**



**BANGKOK, THAILAND
27-29 JUNE 2012**



Towards a framework for resolving ethical conflicts related to measures for disease control

Univ.-Prof. Dr. Herwig Grimm
 Messerli Research Institute
 Veterinary Medical University,
 Medical University, and University of Vienna

Veterinary Ethics

EuFMD, Rome
 April 20th – 21st, 2017

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FMD control measures

Ethical challenge for the Veterinary Profession

Contents

1. Professionals' and the general public's moral convictions
2. Ethical tools for managing conflicts of values
 - Animal disease intervention matrix (ADIM)
 - Responsibility check (RC)
3. Communicating values: Professionals' responsibility
4. Veterinary Ethics: Research and Teaching
5. Conclusions

Prediction is very difficult,
especially about the future.
(Mark Twain, Karl Valentin, et al.)

Moral Convictions

Veterinary professionals and the general public

Moral convictions regarding animals:
Where do they come from?

Moral convictions:
They are there!

Moral Convictions

Veterinary professionals

What makes patients special?

“The **dog** – and the **cat** – became **viewed as patients** whose **treatment need not be limited by the harsh economic constraints** of the agricultural sector, and science and sentiment became linked in a promising new future for veterinary medicine.” (Sandøe et al. 2016, 30)

- animals as companions
- family members
- economic constraints are limiting but not prior

Moral protection zone around the animal: changes in human-animal relationship bring about **demands for medical care without regarding the economic value** of the animal

Moral Convictions

Veterinary professionals

Line of reasoning

- P1: Veterinarians** are specialized **medical doctors**
- P2:** Medical doctors should act to promote and protect **health-related interests of patients**
- P3:** Patients in veterinary medicine are animals that are **presented** to the veterinarian and **can benefit from veterinary care**
- C: Therefore, veterinarians should act to promote and protect presupposed health-related interests of animal patients**

Norm: promote and protect the health-related interests of animals

Moral Convictions

Veterinary professionals

Norm justifies even severe harm if it is in the presupposed interest of the animal.

Moral Convictions

Veterinary professionals

**Ideal and norm: Veterinarians are professionals
who protect and cure patients!**

“One of the **Community’s tasks in the veterinary field** is to improve the state of **health of livestock**, thereby **increasing the profitability of livestock farming** and **facilitating trade** in animals and animal products. **At the same time** the Community is also a **Community of values**, and its **policies to combat animal diseases must not be based purely on commercial interests** but must also take genuine **account of ethical principles.**” (Directive 2003/85/EU)

Moral Convictions

Veterinary professionals: Intra-professional conflict

“Foot-and-mouth disease is a highly contagious viral disease of biungulates. Although **foot-and-mouth disease** has **no public health importance**, due to its **exceptional economic importance**, it is on the top of list A diseases of the Office International des Epizooties (OIE).” (Directive 2003/85/EU)

Norm I: promote and protect
the **health-related interests of
animals**



Norm II: promote and protect
the **interests of others**
(economy and trade)

In the case of FMD control measures official veterinarians...

- are not legally bound to **protect** and **cure** animals
- rather, they maybe required to **kill healthy animals as well as curable infected animals**

Moral Convictions

Veterinary professionals and the general public

What do we know about the general public's
moral convictions?

Moral Convictions

General public: Netherlands (Cohen/Stassen 2016)

Empirical survey NL: Cohen/Stassen 2016

- **epidemic outbreaks** in the late 90ies and 2001 and 2003
- **control mechanisms** and **disease interventions**
- rise of an **intense debate** whether the measures taken took **ethical principles sufficiently into account**

Hypothesis: public resistance throughout the Dutch society because of **major changes in our relationship with animals**

cf. Cohen/Stassen 2016

“It was felt that these **values** had been **overruled** by the European and national governments and interest organisations (e.g. agricultural organisations) that **did not acknowledge the fact that other values were at stake.**” (Cohen and Stassen 2016, 142)

Moral Convictions

General public: Netherlands (Cohen/Stassen 2016)

Table 9.1 Respondents' (n=1,999) convictions on the hierarchical relationship, value, doing good, and right to life of animals.

Domains	Position	
1. Hierarchy	<u>Humans are superior to animals</u>	A 67%: humans are superior to animals
	<u>Humans and animals are equal</u>	
	Animals are superior to humans	
2. Value	<u>Animals have value</u>	100
	Animals have no value	0
3. Do good	People should do good to all animals	85
	People should do good to some animals	12
	People don't have to do good to animals	3
4. Right to life	<u>All animals have a right to life</u>	87
	Some animals have a right to life	12
	Animals have no right to life	1

Moral Convictions

General public: Netherlands (Cohen/Stassen 2016)

A: humans are superior to animals	Rating by the respondents who disagreed with the culling		Rating by the respondents who partly (dis)agreed with the culling		Rating by the respondents who agreed with the culling	
B: humans and animals are equal	A	B	A	B	A	B
Animal life is valuable, therefore <u>healthy</u> animals should not be culled to:						
stop the disease from spreading	7.1*	7.9*	5.4*	6.0*	2.6*	3.5*
safeguard the export position of a country	6.1*	7.0*	4.7*	5.7*	3.0	3.5
protect human health (eye infections)	6.1*	7.4*	5.0*	6.2*	3.4*	4.2*
protect human life	5.6*	8.0*	5.1*	6.1*	3.0*	4.2*

¹ The rating on a scale between 1-10 reflects the importance given to the judgement; * $P < 0.05$.

Group B significantly valued reasons not to cull of greater importance than group A

Moral Convictions

General public: Netherlands (Cohen/Stassen 2016)

Cohen and Stassen follow from this...

- that the **intrinsic value** of animal life **has a gained a prominent place in public morality** (irrespective of its value to people, such as for food, company, or recreation)
- “As a starting point, it should be acknowledged that in epidemics **harm is done to all**: the animals, the animal keepers, and **society as a whole.**” (Cohen and Stassen 2016, 145)

Conflicting of values (norm I and II):

- within the profession (intra professional)
- between profession and public's expectations



**GENERAL
PUBLIC**



...being torn to pieces.

**VETERINARY
PROFESSIONAL**



ANIMALS



OWNERS

Ethical tools

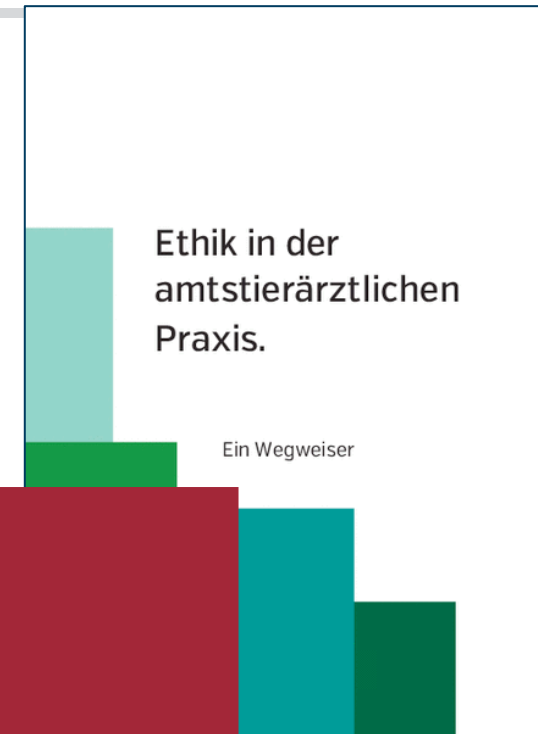
Informing guidance

messerli
Research Institute

VETHICS I: Ethics for Official Veterinarians

official veterinarians and ethicists:

- provide time and space to reflect **professionals' responsibilities**
- test methods to **manage value conflicts**



Ethical tools

Animal Disease Intervention Matrix (ADIM)

Dealing with complexity: ADIM (Aerts 2006)

- **Practice-oriented tool to evaluate** disease control measures
- Core idea: **compare and contrast different scenarios**
- **Steps to take:**
 - **Describe** the animal epidemic at stake
 - **Identify possible scenarios** of disease control
 - **Evaluate the scenarios** on the basis of fifteen practice-oriented objectives
 - **Compare the different scenarios** with regard to their score

- protecting the health of control personnel,
- protecting public health,
- protecting of animal health,
- ensuring of animal welfare,
- respecting the human-animal bond,
- limiting environmental damage,
- limiting the psychological impact on the farmer,
- limiting the psychological impact on the control personnel,
- respecting food,
- Limiting disturbance of social life,
- limiting economic losses in agriculture,
- limiting economic losses in non-agricultural sectors,
- ensuring practicability,
- ensuring food security
- protecting valuable animals.

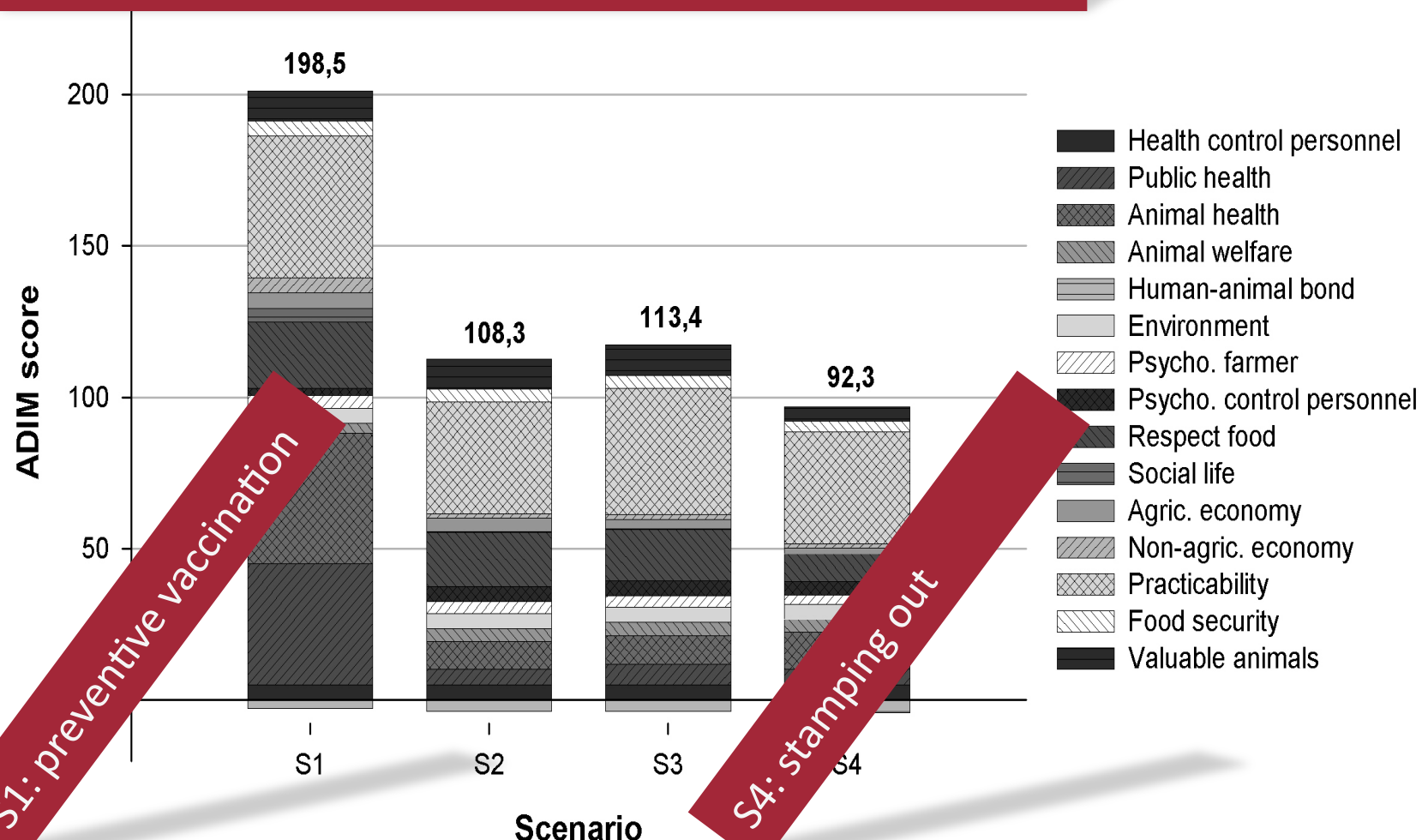
Fifteen objectives

ADIM (Aerts 2006, 116)

Ethical tools

Animal Disease Intervention Matrix (ADIM)

H5N1 AI Simulation (Aerts 2006, 125)



Ethical tools

Animal Disease Intervention Matrix (ADIM)

Workshop with official veterinarians

- **Objectifying** tool
- Clear and **transparent** objectives/criteria
- Helps to **identify normative issues** at play
- Allows to concentrate on “**hot spots**”
- Positive impact on **prospective disease control planning**
- Internal **quality control**

The ADIM informs guidance but quantifications should and cannot replace ethical deliberation.

Individual vet's responsibility...

Ethical tools

Responsibility Check (RP)

What is a “responsibility check”?

- methodology for **ethical analysis**
- works with **analytical questions**
- **focus on individual actors** in their social role
- origin: philosophy of technology
- helps to identify responsibilities and to **clarify responsibilities**
- structures the **complexity of cases**

How does it work?

EN: **responsibility – response**

DK: **ansvarlig – svar**

D: **Verantwortung – antworten**

Giving answers!

...

Ethical tools

Responsibility Check (RP)

Individual responsibility: RP (Ropohl 1994)

- Structure important dimensions of **individual responsibility**
- **Five analytic questions**
- Easy to use

Who is responsible? (e.g. official veterinarian)

What is s/he responsible **for**?

Why does s/he have these responsibilities?

When does s/he have these responsibilities?

To whom does s/he answer?

Ethical tools

Responsibility Check (RP)

Who is responsible?

Official veterinarian

What is s/he responsible **for**?

E.g. Actions and consequences, such as disease control in accordance with regulations

Why does s/he have these responsibilities?

E.g.: moral norms, professional code, law, etc.

When does s/he have these responsibilities?

E.g.: preventive/before, during or after an outbreak

To whom does she answer?

E.g.: employer, colleagues, conscience, etc.

Ethical tools

Responsibility Check (RP)

Workshop with official veterinarians

- Clarify **roles** and corresponding responsibilities
- Identify **role conflicts**
- Working with the RP helps to prepare for **communication**



Communicating values

You cannot not communicate!

Faced with questions about their work, the **worst thing** animal researchers [official veterinarians; H.G.] can do is to try to **shut the enquirer out**.

Olsson et al. 2003

Paul Watzlawick (1921–2007): **Pragmatics of human communication**

One Cannot Not Communicate: Every behaviour is a kind of communication. Because behaviour does not have a counterpart (there is no anti-behaviour), it is **not possible not to communicate**.

What do official veterinarians communicate if they tried not to communicate?

- ... that they do not care about animals
- ... that they want to hide something

Not if, but how!

Communicating values

Talking about roles and responsibilities

Norm I: promote and protect
the **health-related interests** of
animals

Norm II: promote and protect
the **economic and trade**
interests

**VETERINARY
PROFESSIONAL**

citizen

officials

Taking **active part** in
working with **expert
knowledge** towards
improvements.

experts

Taking on **responsibility as
a professional** actively in
challenging situations.

Communicating values

Living up to professional responsibility

- **Knowing and managing conflicts of values** is part of the professionals' responsibility
- Clarify **roles** and **responsibilities** (RC)
- **Well-reasoned judgments** are expected
- ADIM and RC can help to **prepare**

One voice – different,
transparent, and clarified
responsibilities

citizen

Taking **active part** in
working with **expert
knowledge** towards
improvements.

officials

Taking on **responsibility
as a professional** in
challenging situations
actively.

**VETERINARY
PROFESSIONAL**

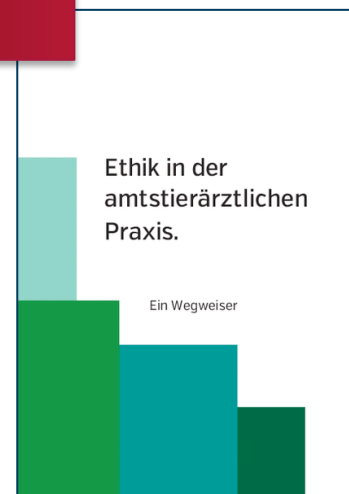
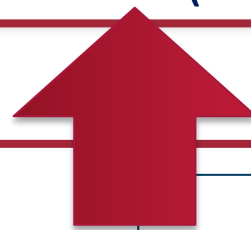
Teaching Veterinary Ethics

Living up to professional responsibility

messerli
Research Institute

VETHICS II: e-learning tool on
veterinary ethics (2016-2018)

VETHICS I: Veterinary ethics
for official veterinarians
(2013-2016)



fg MINISTERIUM
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GESUNDHEIT

Conclusions

Key messages

- **moral convictions** regarding animals factor heavily in **shaping perceptions** of measures for disease control
- disease control scenarios involve **conflicts of values** and **uncertainties** in how to **communicate** as a professional
- **Ethical tools** like the Animal Disease Intervention Matrix (ADIM) and the Responsibility Check (RC) can **inform guidance**
- **training of veterinarians** relating to understanding and **managing conflicts of values as professional responsibilities** has become increasingly important
- further collaborative studies in the emerging **research field of veterinary ethics** are encouraged to develop evidence and guidance





Towards a framework for resolving ethical conflicts related to measures for disease control

Thank you very much
for your attention!



Herwig.Grimm@vetmeduni.ac.at



Call for papers

PROFESSIONALS — IN — FOOD — CHAINS

Ethics, Roles and Responsibilities

EurSafe Congress 2018

13th–16th June 2018, Vienna, Austria



Background

The EurSafe 2018 Congress in Vienna will focus on the role of professionals and professions in the food chain. Within the public debate surrounding food it is often argued that the key to meeting current challenges is changing consumer behaviour. Professionals and practitioners like farmers, retailers, veterinarians, or researchers are only in the position to better understand and get to grips with current and

**European Society for Agricultural
and Food Ethics**

www.vetmeduni.ac.at/eursafe2018

Veterinary Ethics Network

Teaching Ethics Network

Workshops VETHICS

Congress Topics

Call for papers

PROFESSIONALS — IN — FOOD — CHAINS

Ethics, Roles and Responsibilities

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Veterinary Ethics Network

Teaching Ethics Network

Workshops VETHICS

Congress Topics



Food and Agriculture
Organization of the
United Nations



European
Commission



42nd General Session of the EuFMD

Outcome of questionnaire on The private sector role in FMD emergency preparedness

M. Hovari

The European Commission for the Control of Foot-and-Mouth Disease



Background

March 2017 EuFMD circulated a questionnaire to all 38 EuFMD Member States

21 responses received
(55% overall response rate) until publishing
(2 more afterwards)

These are the key messages of the survey

EUFMDQ2017e.doc

European Commission for the Control of Foot-and-Mouth Disease



Questionnaire for Technical Item 2: The private sector role in FMD emergency management

Please complete in type or in block capitals.
Please address all replies by e-mail: Mark.Hovari@fao.org
Please return no later than Monday, 20th March 2017.

Country: _____





Key Messages

- More than half (57%) MSs responded indicated that there is **no formal representation of the private sector** in their emergency preparedness planning and response plans;
- The level of **influence of the PS on decision making and prioritization** of eradication efforts in the event of an FMD outbreak shows significant variation among the respondent MSs;
- Only 24% of respondent MSs indicated that their private sector would be highly involved in disease control and eradication measures in case of an FMD outbreak;
- Some private sector organizations have **their own emergency management plans** for an FMD outbreak and these might provide a useful resource, including a source of informed opinion for consultations on emergency management;
- The private sector was viewed as a **good source of information** to assist identification of critical issues that must be addressed in the case of an FMD crisis;
- A high proportion (86%) of respondent MSs supported the idea that **EuFMD opens up training places** for representatives of the private sector in the future, as part of an effort to engage in improved communication on the risks of FMD and promote constructive engagement and collaboration.



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The private sector role in FMD emergency preparedness - Denmark

Jan Dahl

*DVM, Chief adviser, Deputy head of industry task force
Danish Agriculture & Food Council*



The role of the industry in "peace-time"

- Preventing introduction - animal movement and clean trucks
- Preparedness
- Education
- Trust

The role of the industry in an outbreak

- Organisation
- Cooperation with the authorities



Table 1. OIE-status for Denmark

Infection	Status	Notifiable
Foot and Mouth	Last occurrence 1983	Yes
African Swine Fever	Never reported	Yes
Classical Swine Fever	Last occurrence 1933	Yes
Brucella abortus	Last occurrence 1962	Yes
Brucella suis	Last occurrence 1999	Yes
Brucella melitensis	Never reported	Yes
Aujeszky's disease	Last occurrence 1991	Yes
Transmissible Gastro Enteritis	Never reported	Yes
Bovine Tuberculosis	Last occurrence 1994	Yes
Swine Vesicular Disease	Never reported	Yes
Trichinellosis	Last occurrence 1930	Yes
Anthrax	Last occurrence 1988	Yes



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Peacetime



Preventing introduction – the dilemma





Import of live animals

- On average less than 100 pigs per year
- 200-300 heads of cattle per year
- Voluntary quarantine organized by Danish Agriculture & Food Council



The challenge





BORDER CONTROL – WASH AND DESINFECTION OF LIVESTOCK TRUCKS

- Organized by the PRC
- 25.000 trucks annually
- Visual control
- Wash ex and internal:
Clean water and soap
- Desinfection ex and internal: Peracetic acid 1 %
- Costs 1.3 mil Euro annually



24. april
2017

DANISH
Safety Wash

Valbækvej 10, 2600 Lyngby
∞

25.000 transport trucks passed the 5 Danish wash and disinfection border stations during 2015

7 mil. weaners to Germany and 4 mil. weaners exported to Poland of the total 12 mil exported weaners in 2015



Bio secure delivery facilities required





Preparedness

Education of farmers and veterinarians

- Encouraging farmers and veterinarians to report suspicions
- Educating farmers and staff - biosecurity
- Biosecurity part of herd health contract between veterinarian and producer
- Updating transporters and producers on the animal health situation
 - E-mail – internet – farmers journals

Trust

- Compensating all losses



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Simulation exercises/"wartime"



Close collaboration between industry and authorities

- Planned by a group with participation from both industry and authorities
- Aim is at least one exercise per year
 - Full scale with crew "on the ground"
 - "Virtual" with establishment of task force in DAFC, establishing communication to relevant partners
 - Check that all necessary resources are available without deployment
- Expensive – but necessary





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Contingency plan DAFC



Handling of suspect cases until verified

- SMS and E-mail to all relevant persons and organizations
 - Board of DAFC, relevant companies, staff – open to everyone who wants to be on the list



Strong suspicion or verified case – day one

- Establishing industry task force at once
 - Already pre-planned personnel for the major diseases – like FMD
 - Changing DAFC into crisis management
- E-mail and SMS to executive board
 - First meeting within hours
- Liaison officer is sent to Veterinary and Food Administration
- Establishing contact to relevant companies and organizations
- Establishing teams for stamping out



Day 2

- Stamping out teams start working
 - Depending on species
 - Danish Veterinary and Food Administration is in charge
 - Staff from DAFC helps with practical coordination
 - Staff from slaughterhouses/technicians from DAFC will help handling animals and the euthanization procedures



Industry task force

- Meetings at least twice a day in the war room
 - Coordinating communication
 - Contact to Veterinary and Food Administration
 - Allocating staff to stamping out teams



Lessons learnt

- Good contingency plans do not have all the answers
– simulation exercises necessary
 - Many questions to be answered although we thought we had everything covered
 - What happens if the diagnostic lab owned by the Danish Pig Research Centre is in a zone?
 - Can we dispense for the rules for antibiotic prescription and farm visits by veterinarians?
- Collaboration between industry and Veterinarian and Food Administration is necessary
- Industry has to take responsibility



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Please connect a device to answer polls!!

Password: wifi2internet



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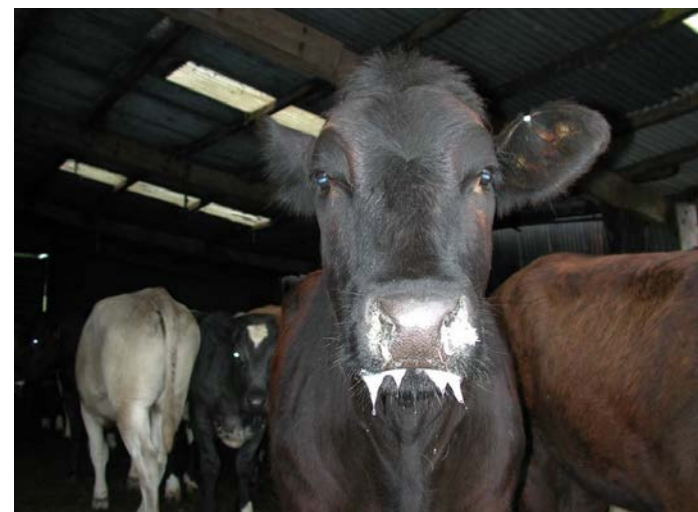
Confidence in early detection of FMD

Melissa McLaws and Paolo Motta
EuFMD



Outline

- Background: Surveillance for FMD-free countries
- Constraints to passive surveillance
 - Evaluation
- Options for improving passive surveillance
- Case study: Thrace



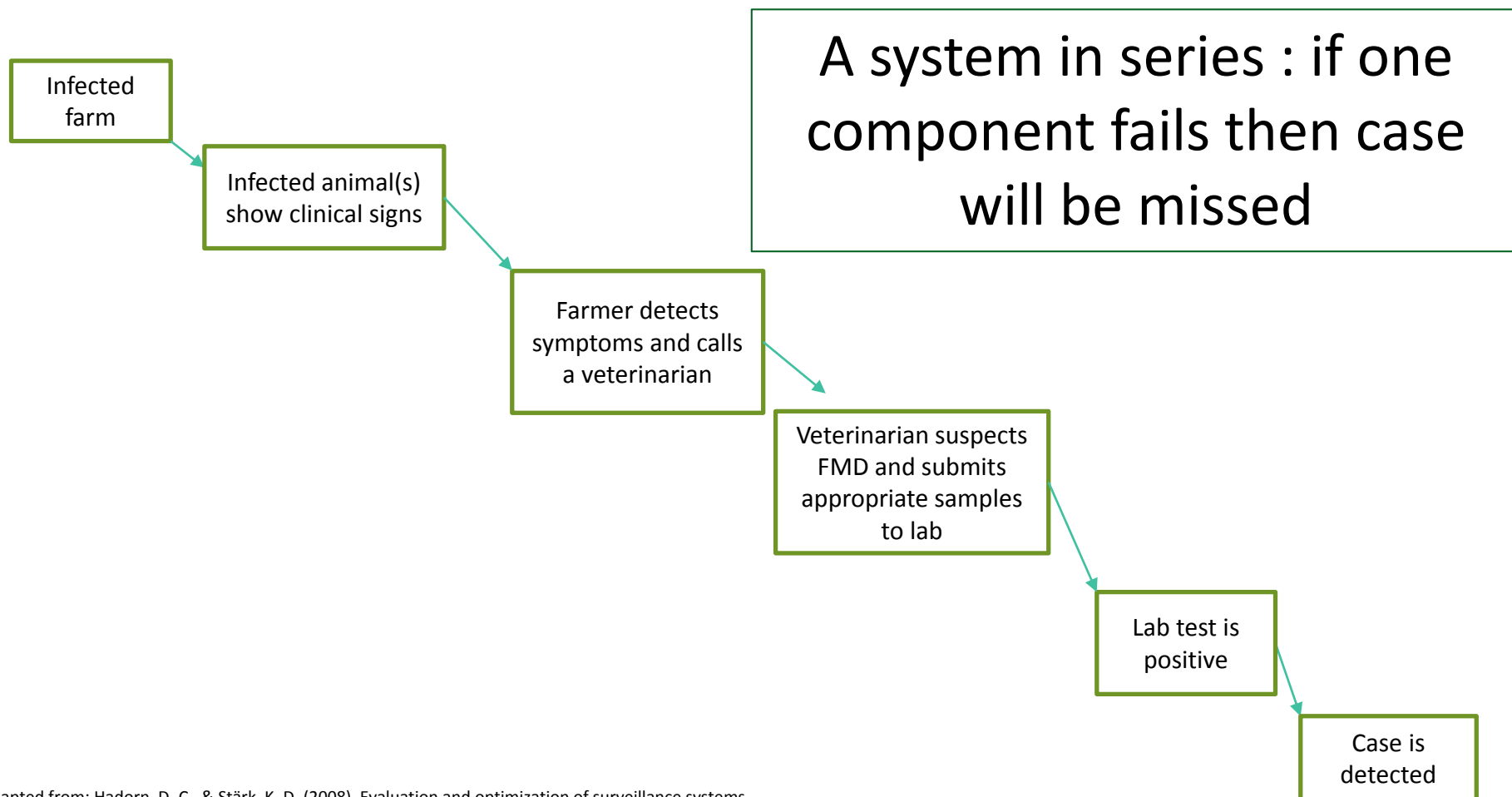


Background: FMD surveillance in free countries

- **Early detection** of an incursion critical to:
 - minimize disease spread
 - optimize the cost-effectiveness of control and eradication measures
 - re-gain the ability to export animals as quickly as possible
- **Maintenance of OIE FMD-free status** requires evidence annually that:
 - surveillance has been implemented to detect FMD
 - regulatory measures for early detection of FMD carried out
- **Passive surveillance** (farmer reporting) typically relied on for detection of emerging and exotic diseases
 - Continuous coverage of 100% of population
 - Cost-effective



Background: passive surveillance



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. Veterinary research, 39(6), 1.



When might passive surveillance fail to detect disease?

Infected
farm

Infected animal(s)
show clinical signs



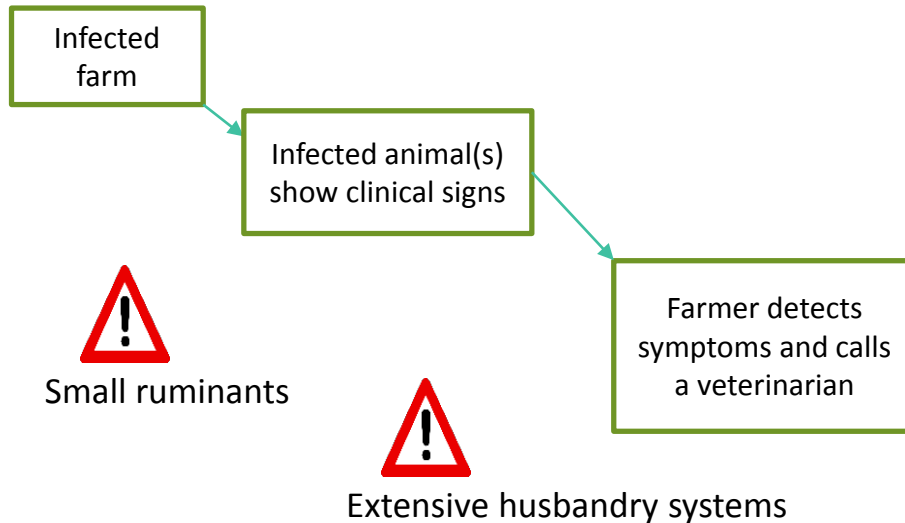
Small ruminants



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. *Veterinary research*, 39(6), 1.



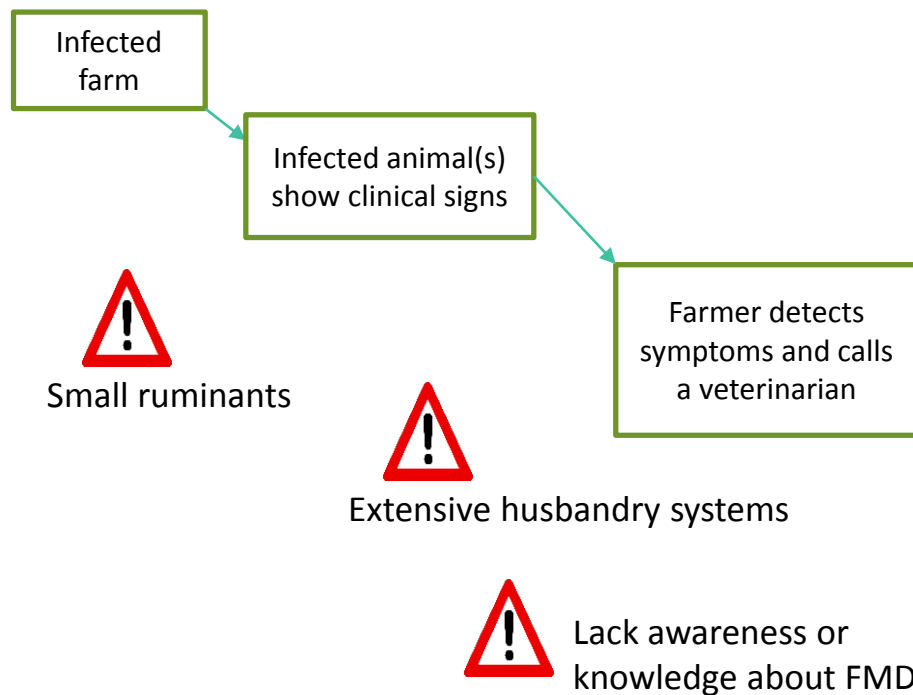
When might passive surveillance fail to detect disease?



Real time training near Erzurum, 2014



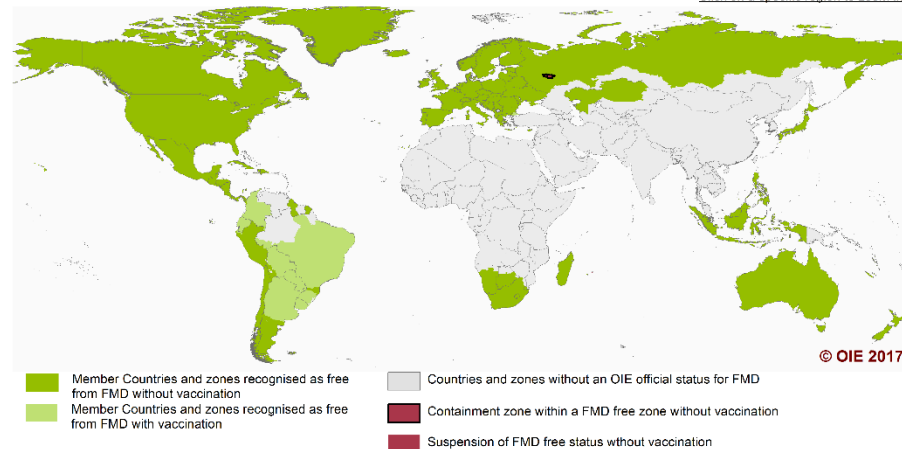
When might passive surveillance fail to detect disease?



OIE Member Countries' official FMD status map

Last update January 2017

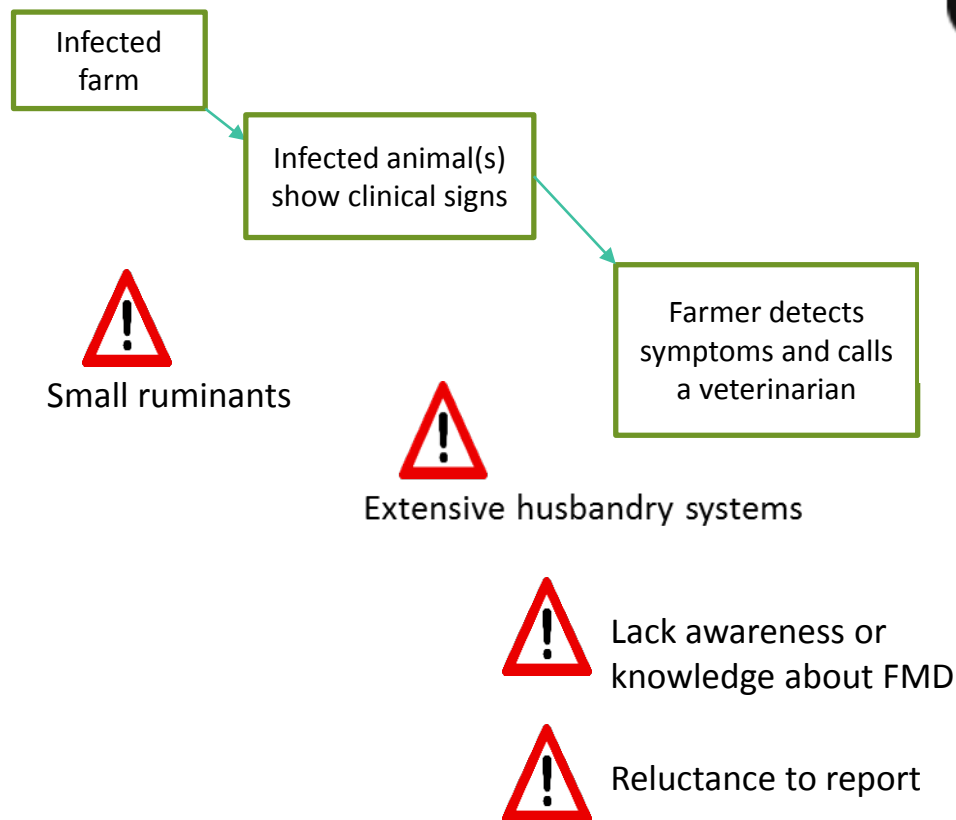
[Click on a specific region to zoom in](#)



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. *Veterinary research*, 39(6), 1.



When might passive surveillance fail to detect disease?



The Telegraph

HOME » NEWS

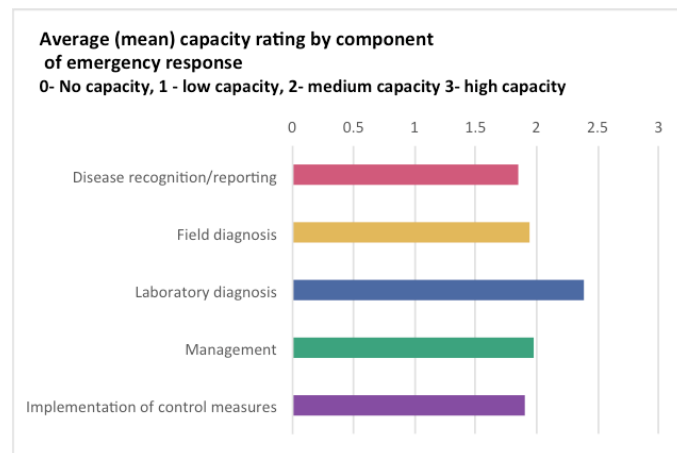
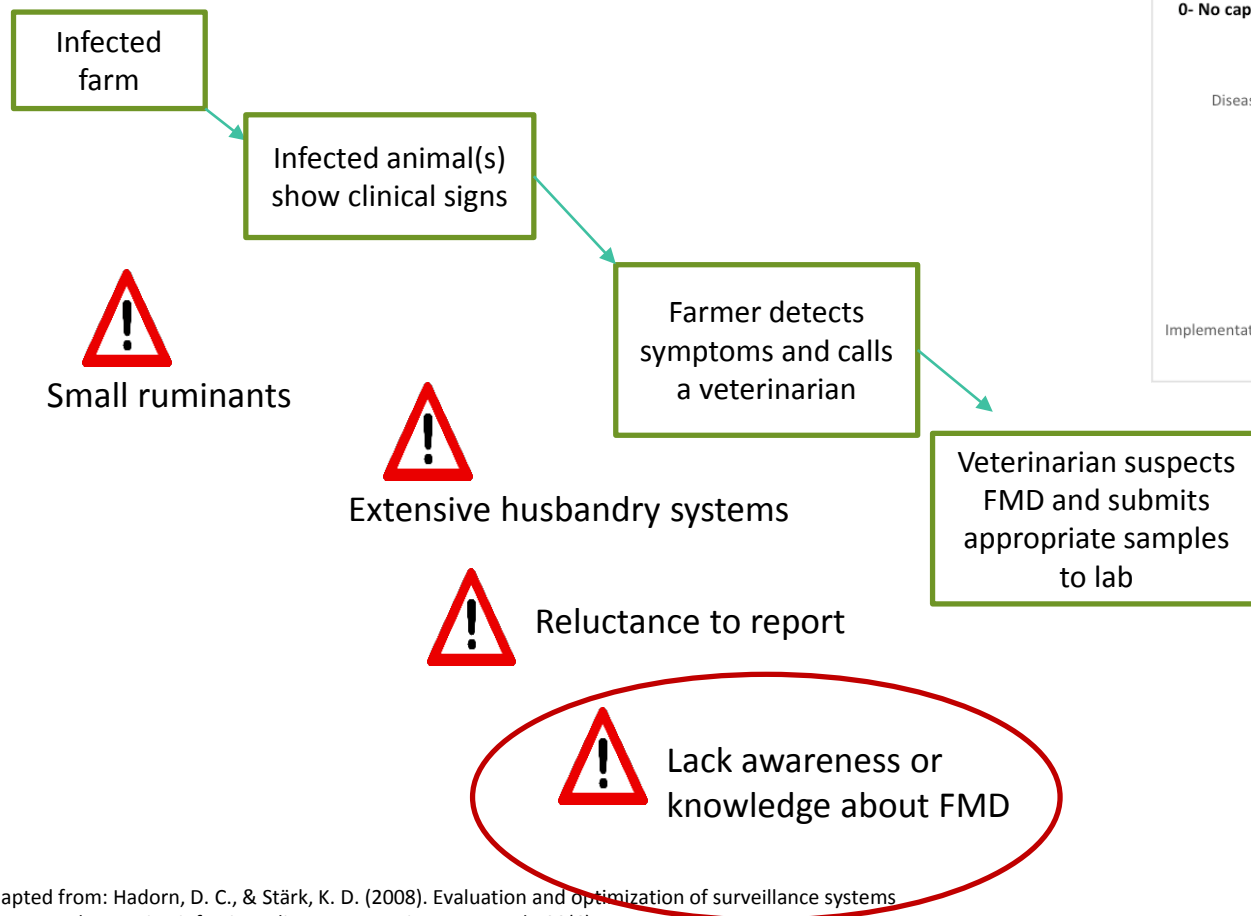
Pig farmer guilty of hiding foot and mouth



4:28PM BST 30 May 2002



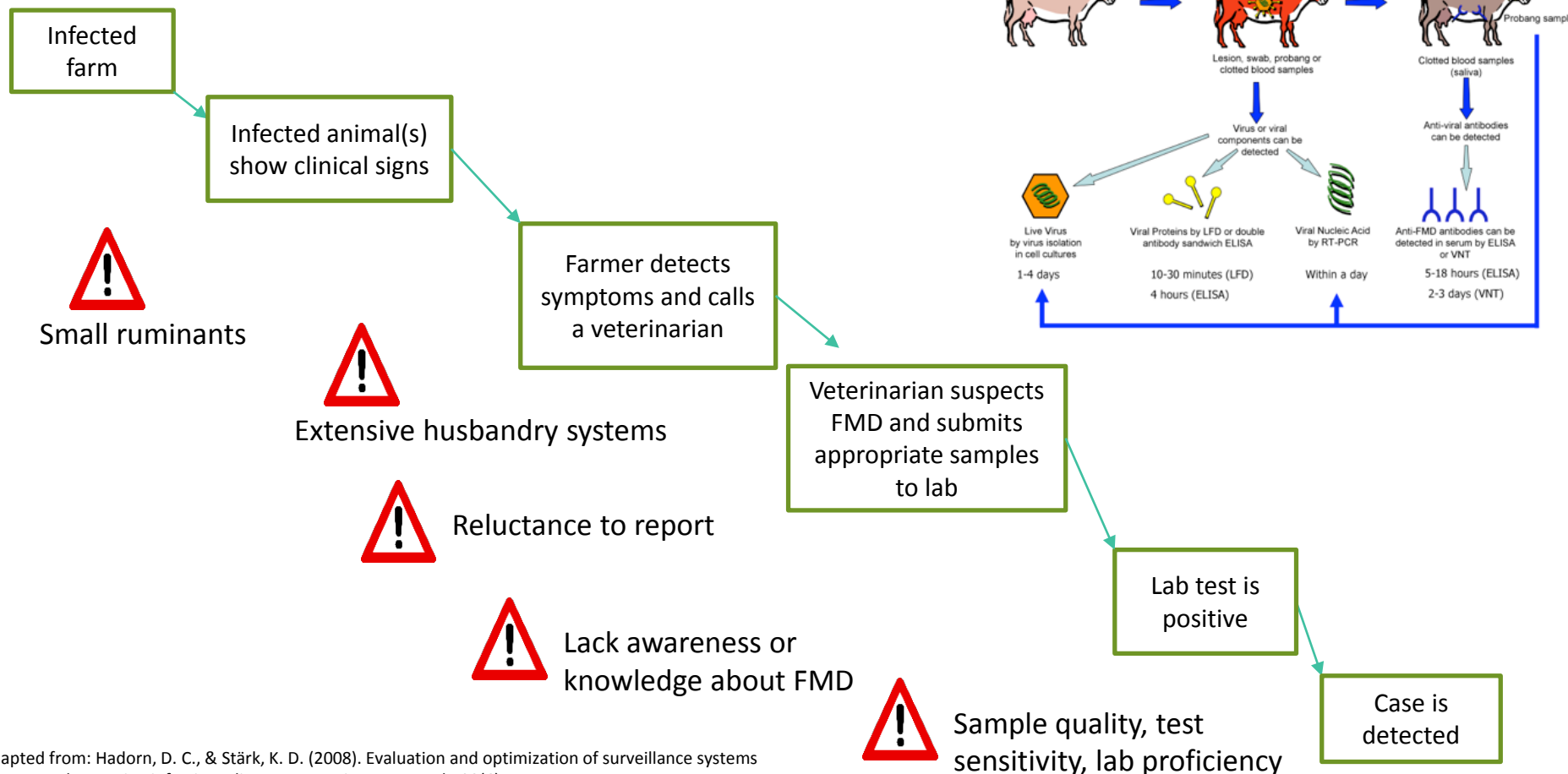
When might passive surveillance fail to detect disease?



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. Veterinary research, 39(6), 1.



When might passive surveillance fail to detect disease?

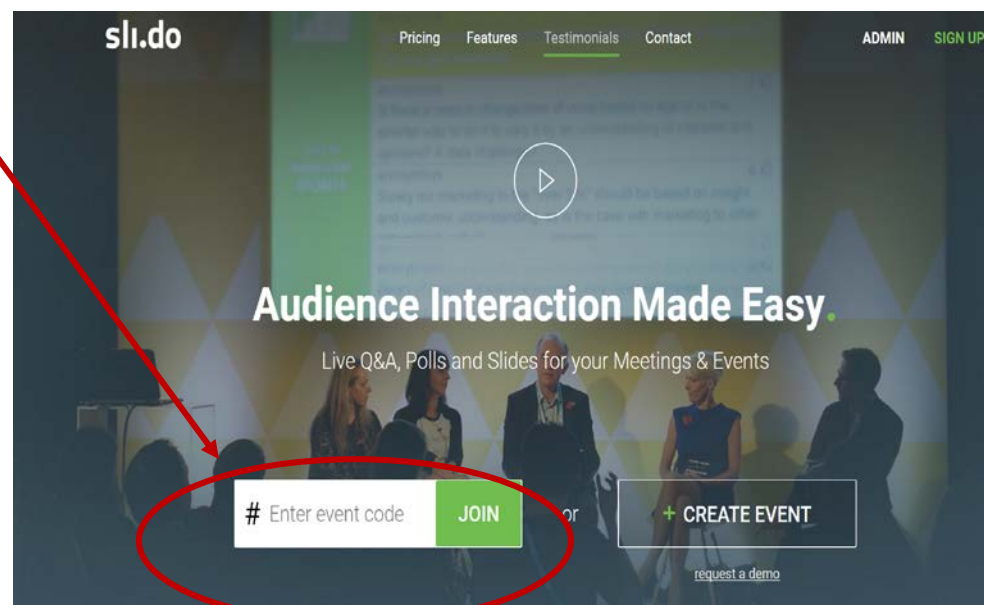


Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. Veterinary research, 39(6), 1.



POLL

1. Go to: slido.com
2. Enter code: 2952





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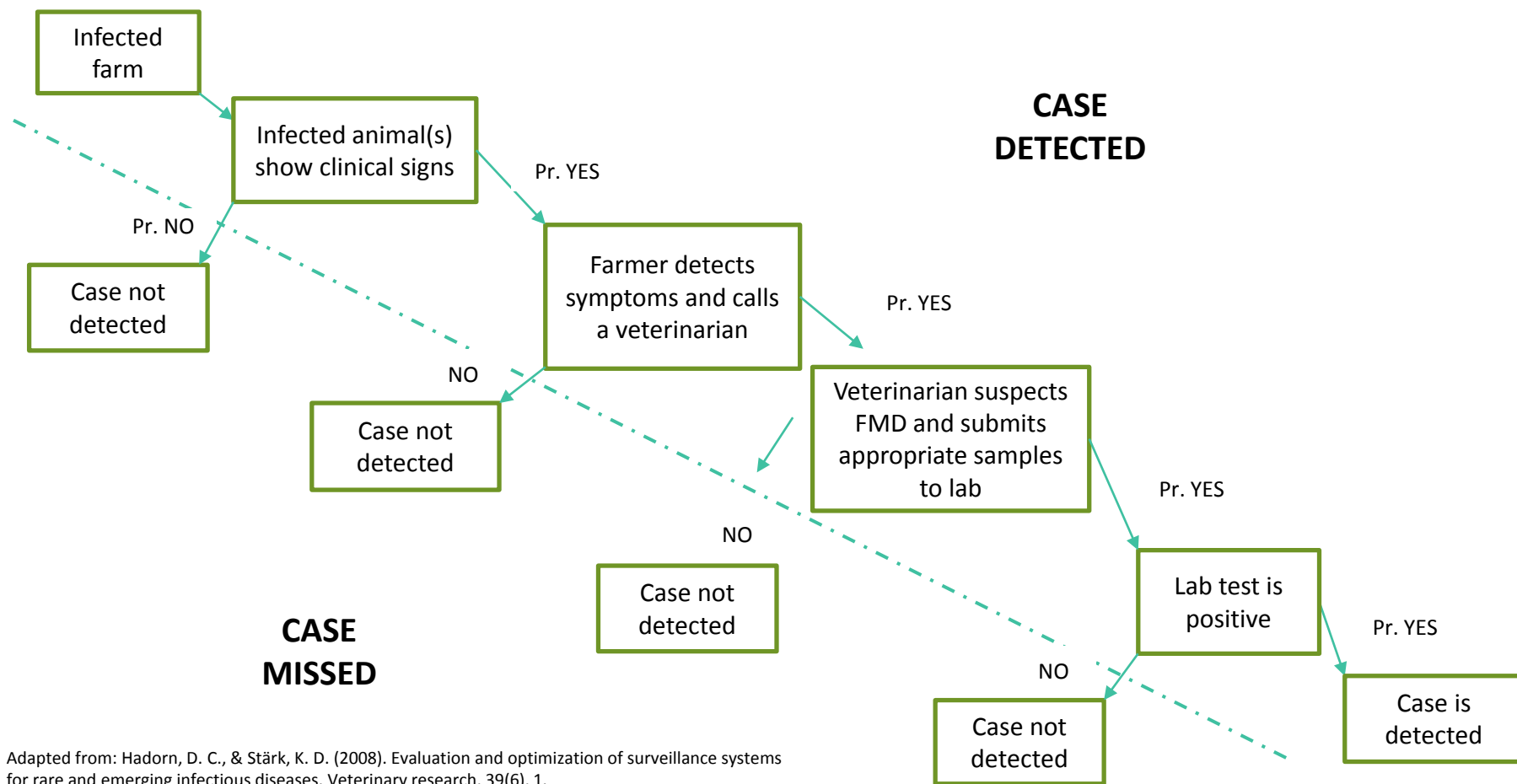
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Poll: is passive surveillance reliable in your country?



Evaluating passive surveillance



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. Veterinary research, 39(6), 1.



Evaluating passive surveillance

Constraint	Evaluation at population level
Disease does not cause obvious or pathognomonic clinical signs	Distribution of small ruminants, especially areas where there is a high ratio of SR:LR



Evaluating passive surveillance

Constraint	Evaluation at population level
Disease does not cause obvious or pathognomonic clinical signs	Distribution of small ruminants, especially areas where there is a high ratio of SR:LR
Animals are not observed regularly	Assess typical husbandry practices for different farm types



Evaluating passive surveillance

Constraint	Evaluation at population level
Disease does not cause obvious or pathognomonic clinical signs	Distribution of small ruminants, especially areas where there is a high ratio of SR:LR
Animals are not observed regularly	Assess typical husbandry practices for different farm types
Disease is not recognised and reported due to lack of knowledge	Questionnaire survey, focus group, participatory approaches, current reporting of suspect cases , discrete choice experiments
Reluctance to report	



Evaluating passive surveillance

Constraint	Evaluation at population level
Disease does not cause obvious or pathognomonic clinical signs	Distribution of small ruminants, especially areas where there is a high ratio of SR:LR
Animals are not observed regularly	Assess typical husbandry practices for different farm types
Disease is not recognised and reported due to lack of knowledge	Questionnaire survey, focus group, participatory approaches, current reporting of suspect cases , discrete choice experiments (e.g. see Pham et al, 2017)
Reluctance to report	
Failure of the laboratory to confirm the suspicion.	Characterise laboratory test sensitivity , proficiency test results, simulation exercises



Poll: Reluctance to report

What barriers might exist in your country (choose all that apply)?

1. Reporting suspicion is inconvenient (remote, too much paperwork...)
2. Concern about cost of calling veterinarian
3. Concern about repercussions (eg quarantine, culling, neighbour's gossip)
4. Lack of trust in authority
5. None!



Poll: suspect cases

On average, how many suspect cases are reported and investigated in your country each year? (on average over last 5 years)

1. None
2. Less than 5
3. 5-10
4. 10-20
5. More than 20



Improving surveillance for early detection

1. Improve passive surveillance
2. Supplement passive surveillance





Improving surveillance for early detection

1. Improve passive surveillance



Constraint	Approach to improve
Disease does not cause obvious or pathognomonic clinical signs	Explore use of sentinel animals, active surveillance



Improving surveillance for early detection

1. Improve passive surveillance



Constraint	Approach to improve
Disease does not cause obvious or pathognomonic clinical signs	Explore use of sentinel animals, active surveillance
Animals are not observed regularly	Observe more regularly, especially at times of high risk (e.g. following movements or new introductions into herd)



Improving surveillance for early detection

1. Improve passive surveillance



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Disease does not cause obvious or pathognomonic clinical signs	Explore use of sentinel animals, active surveillance
Animals are not observed regularly	Observe more regularly, especially at times of high risk (e.g. following movements or new introductions into herd)
Disease is not recognised and reported due to lack of knowledge	Increase awareness , communication, training of farmers, veterinarians and others involved in production



Improving surveillance for early detection

1. Improve passive surveillance



Constraint	Approach to improve
Disease does not cause obvious or pathognomonic clinical signs	Explore use of sentinel animals, active surveillance
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Disease is not recognised and reported due to lack of knowledge	Increase awareness , communication, training of farmers, veterinarians and others involved in production
Reluctance to report	Identify and characterise the specific barriers and concerns, and address them



Improving surveillance for early detection

1. Improve passive surveillance



Constraint	Approach to improve
Disease does not cause obvious or pathognomonic clinical signs	Explore use of sentinel animals, active surveillance
Animals are not observed regularly	Observe more regularly, especially at times of high risk (e.g. following movements or new introductions into herd)
Disease is not recognised and reported due to lack of knowledge	Increase awareness , communication, training of farmers, veterinarians and others involved in production
Reluctance to report	Identify and characterise the specific barriers and concerns, and address them
Failure of the laboratory to confirm the suspicion.	Training of field veterinarians and laboratory scientists in sample collection, shipment and testing protocols



Improving surveillance for early detection

ADD-ON

- Supplement passive surveillance
 - clinical and/or serological surveillance at abattoirs, markets and/or sentinel premises
 - screening bulk milk samples
 - resource intensive
- however, may be useful in high risk populations.



Targeting resources to improve surveillance

1. Populations in which the passive surveillance system is more likely to fail
2. Populations with high probability of disease incursion:
 - Eg livestock populations in close proximity to endemic countries, or in which pigs are fed untreated swill
2. Populations with very high consequences of failure to detect the incursion:
 - Eg. infection of a breeder farm that regularly supplies animals to several other farms; or infection of animals that pass through a market



Case study: Thrace region

High-risk area for FMD introduction/detection:

- proximity to FMD-endemic Anatolia
- predominance of small ruminants
- semi-extensive production systems
- wildlife cross-border circulation (including wild boars)
- relatively long absence of the disease in the region





Surveillance Objectives

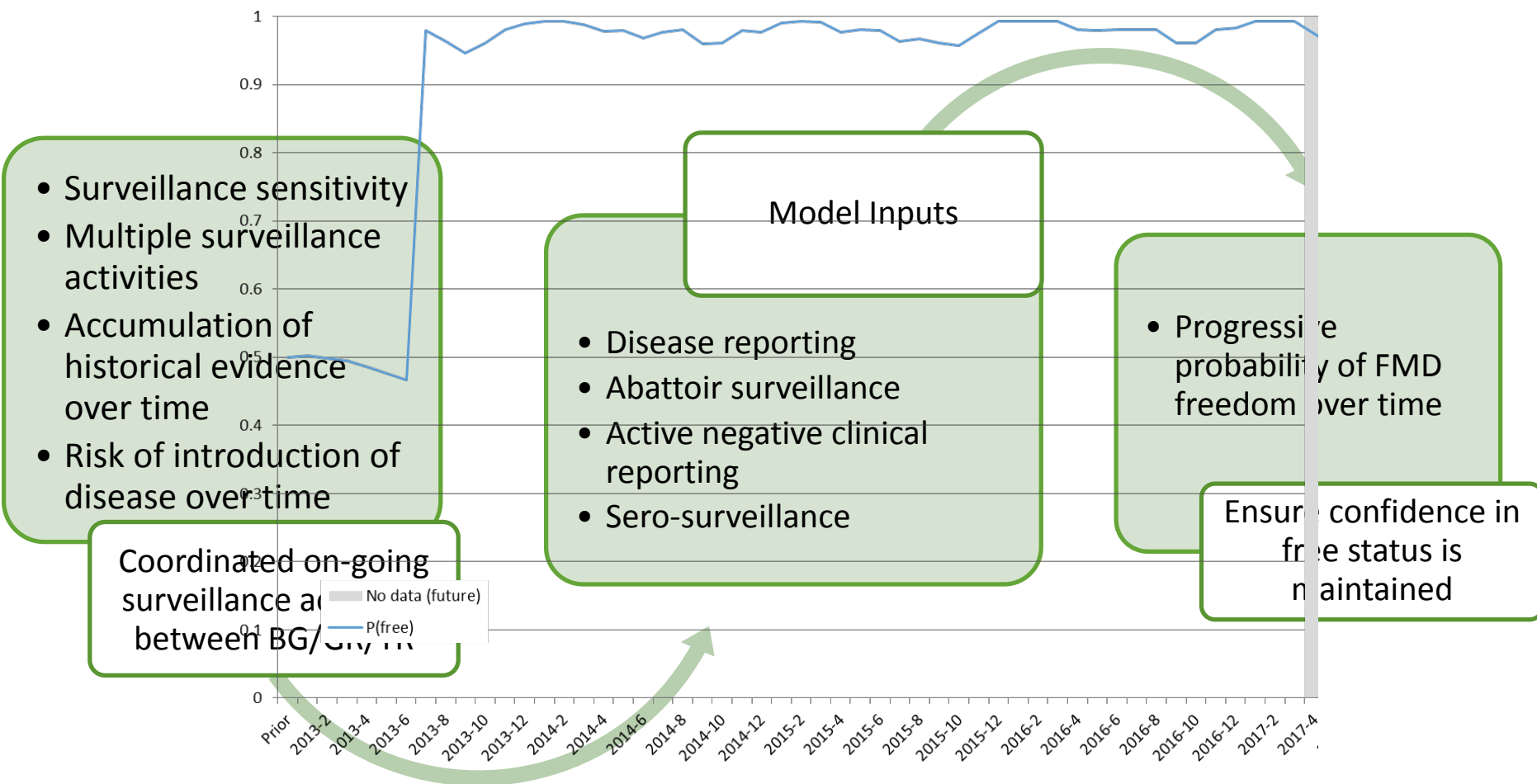
- Provide ongoing evidence of freedom from disease
- Surveillance for early detection of disease incursions

THRACE Programme:

*Supplementing disease/suspicion reporting with
an active risk-based surveillance*



Modeling Framework



Credits: Angus Cameron (AusVet)



Assess the relative risks and consequences

Risk of introduction

- Livestock population
- Husbandry systems
- Animal movements
- ...

Risk of reporting failure

- Identify “reporting actors”
- Probability reporting failure
- Time for disease recognition
-

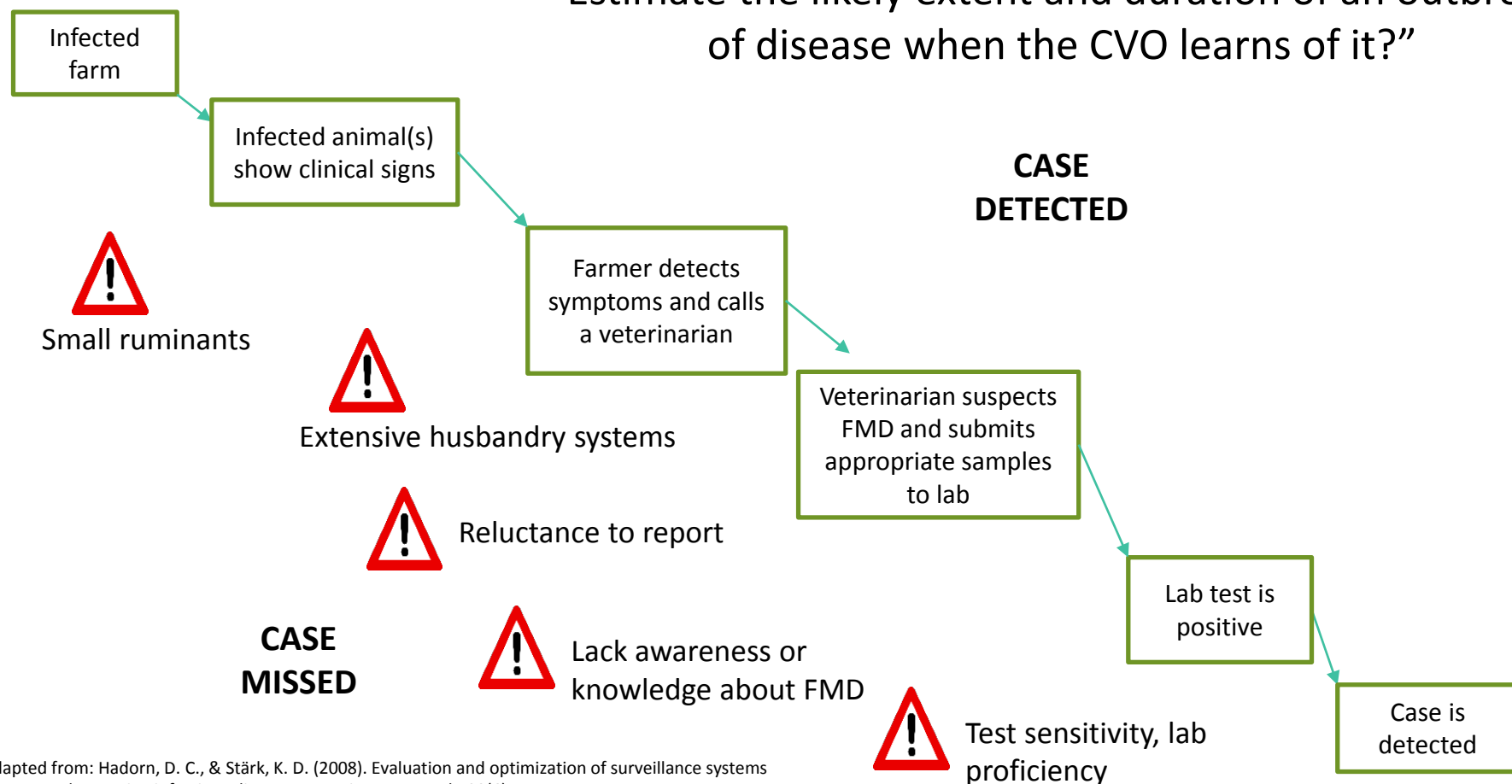
Consequences of spread

- Control measures
- Access to trade
- Production losses/Business continuity
-



Evaluating “passive” surveillance

“Estimate the likely extent and duration of an outbreak of disease when the CVO learns of it?”



Adapted from: Hadorn, D. C., & Stärk, K. D. (2008). Evaluation and optimization of surveillance systems for rare and emerging infectious diseases. Veterinary research, 39(6), 1.



Practical implementation/Workplan

Identify high risk
populations

- Passive surveillance insufficient (evaluation)
- High **probability** of disease incursion
- High **consequences** if there is an outbreak



Target surveillance
enhancements

- **Improve** passive surveillance and/or
- **Supplement** passive surveillance



Ensure free status
maintained

- Greater confidence in disease freedom
- Incursion detected earlier



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Thank you!



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42nd General Session of the EuFMD

National cascade training - Italy

FMD OUTBREAK MANAGEMENT AND BIOSECURITY

Why and how...

Francesca CALVETTI – Pasquale SIMONETTI

Veterinary officers, Ministry of Health - Italy



... *background*

EuFMD provides under Pillar I – Component 1.1 several **training options** to MSs (*training menu*)

These training activities need to be **further developed and spread** at national level (*cascade training*)

The scope is that the EuFMD trainees act as trainers translating into national trainings the knowledge and skills acquired (*so called ‘train the trainer’ approach*)

Italy and EuFMD cooperated to organize a **pilot project**



... objectives

This course aims at providing Italian Public Veterinary Officers belonging to the National Competent Authority, the Regional Veterinary Services and Istituti Zooprofilattici Sperimentali (IZSs) with the necessary tools to recognise, detect, diagnose and control Foot and Mouth Disease

MINISTRY of HEALTH



CENTRAL LEVEL

REGIONAL GOVERNMENT 19 REGIONS and 2 PROVINCES 10 Institutes/laboratories - IZSs



REGIONAL LEVEL

LOCAL VET UNIT (139) 2.500 AH VETERINARY OFFICERS



LOCAL LEVEL

INSTITUTES (10) 90 lab diagnostic units



REGIONAL LEVEL

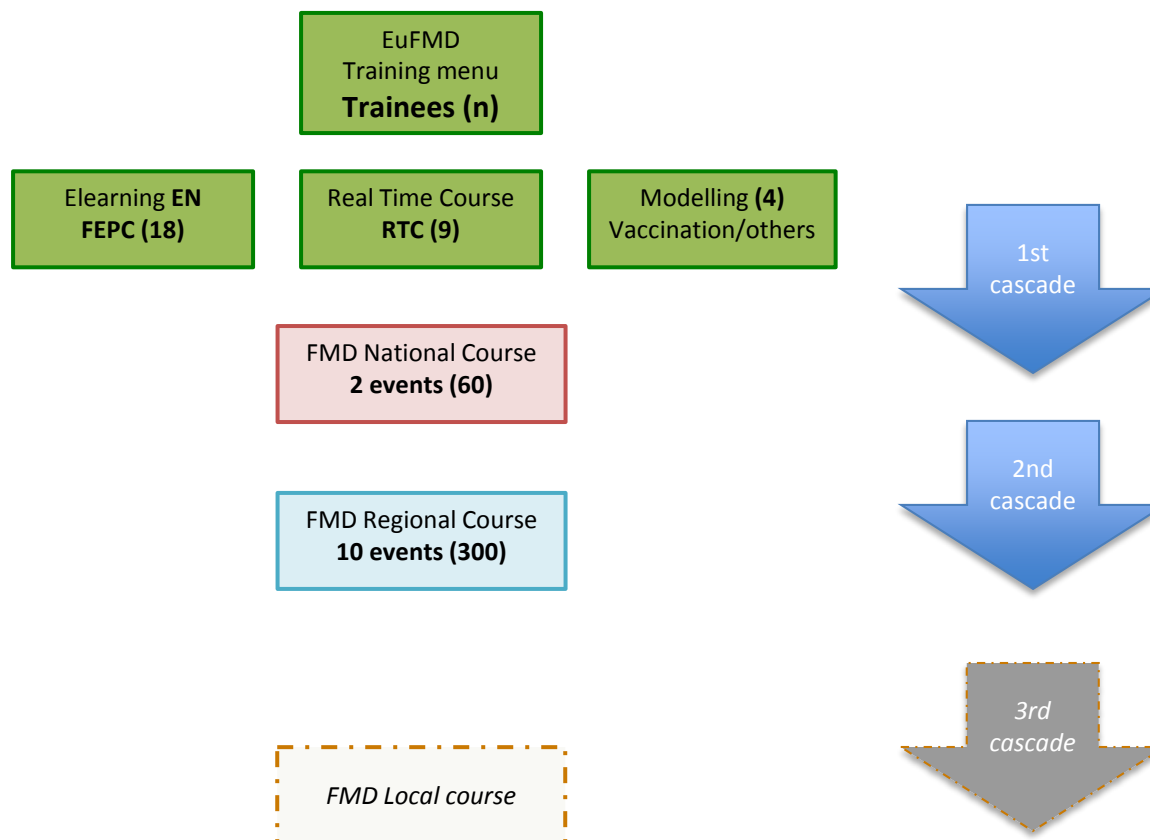


... methodology

1. EuFMD courses (RTCs – FEPC – Modelling) (2009-2017)
 - a. Trainees nominated by the national focal point
2. FMD national course (1st cascade) (2-2 days events Rome and Brescia - 30 participants each)(2016)
 - a. Trainers (EuFMD trainees)
 - b. Trainees (Official Vets from IZSs, Regions and LVUs/AH chief)
3. FMD regional course (2nd cascade) (10-2 days events IZSs HQs – 30 participants each) (2017-2018)
 - a. Trainers (EuFMD + national course trainees)
 - b. Trainees (Official Vets LVUs, Private Vets, stakeholders)
4. FMD local course (3rd cascade) (regional-local initiative)
 - a. Trainers (national/regional course trainees)
 - b. Trainees (private veterinarians – farmer associations)



... methodology





... methodology

1st cascade: (2 events Rome and Brescia - 30 participants each)(2016)

2nd cascade: (10 - 12 events IZSs HQs – 30 participants each) (2017-2018)

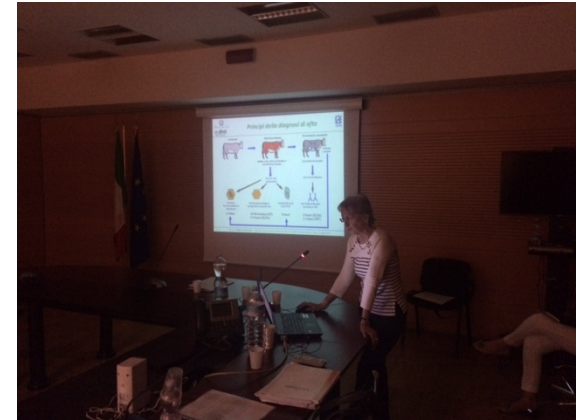
SESSION	LOCATION	DATE
FMD National Course (1st cascade)		
1	Rome	June 2016
2	Brescia	September 2016
FMD Regional Course (2nd cascade)		
1	Sassari	March 2017
2	Portici	May 2017
3	Rome	June 2017
4	Brescia - Parma	September 2017
5	Teramo	2017 -2018
6	Padova	2017 -2018
7	Perugia	2017 -2018
8	Foggia	2017 -2018
9	Torino	2017 -2018
10	Palermo	2017 -2018





... *program*

1. Introduction to FMD
2. Suspect management
3. Desktop and biosecurity exercise





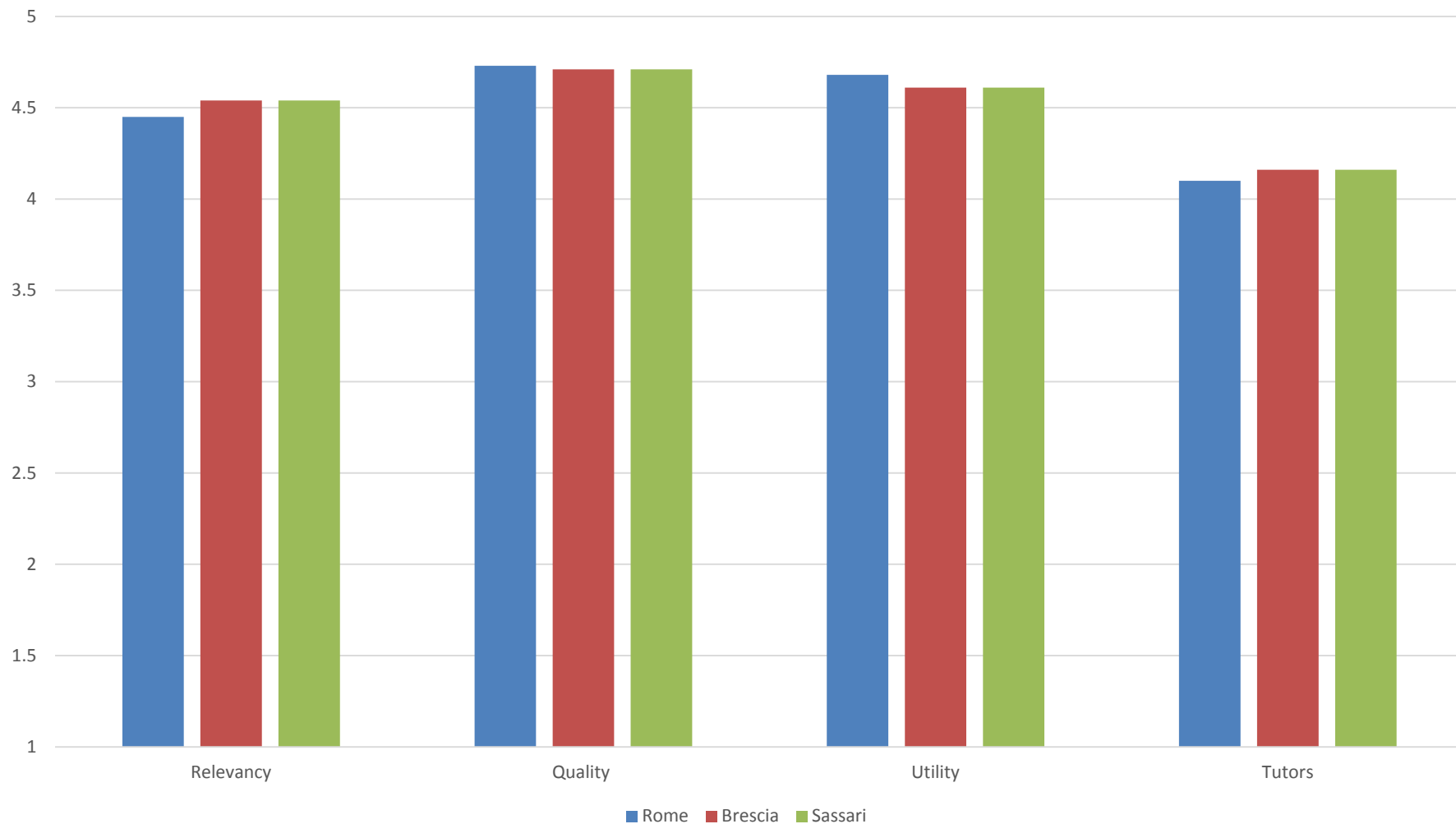
... training material

EuFMD training material

- Presentations
- Videos
- Factsheets
- Exercises
- Access to the EuFMD e-learning web site



... evaluation





... participants' comments

1° cascade

- 3-days course
- More time for legislation and less for laboratory's test and diagnostic methods (just sampling in relation to lesions and symptoms)
- More information and discussion on confirmed outbreak management included vaccination and carcasses management
- Communication to stakeholder



... *participants' comments*

2° cascade

- More information and discussion on confirmed outbreak management related to the territory/region
- Slaughter vets
- On site session
- Registration of biosecurity exercise and comparison with the EuFMD video
- Forum on IZSLER platform



... next sessions



SESSION	LOCATION	DATE
FMD National Course (1st cascade)		
1	Rome	June 2016
2	Brescia	September 2016
FMD Regional Course (2nd cascade)		
1	Sassari	15-16 March 2017
2	Portici	24-25 May 2017
3	Rome	14-15 June 2017
4	Brescia - Parma	2 ^o half of September 2017
5	Teramo	2017 -2018
6	Padova	2017 -2018
7	Perugia	2017 -2018
8	Foggia	2017 -2018
9	Torino	2017 -2018
10	Palermo	2017 -2018



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Thank U





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European Commission for the
control of foot-and-mouth disease



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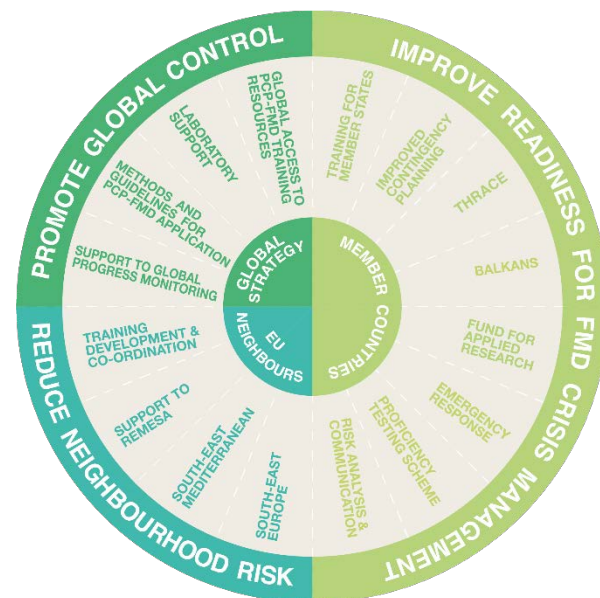


42nd General Session of the EuFMD

Needs based training: identifying priorities for training for member states, and non-member states in the European neighbourhood and other regions

J Maud, K Ouali, M De la Puente Arevalo, H Camphor

The European Commission for the Control of Foot-and-Mouth Disease





Outline

1. The EuFMD training programme:
recap of the plans presented at the
41st General Session
2. Training needs assessment: why and
how?
3. Building our infrastructure for
training: webinars, networks and our
e-learning platform
4. Pillar I
5. Pillar II
6. Pillar III
7. Conclusions and next steps





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The EuFMD training programme: recap of the plans presented at the 41st General Session

Jenny Maud



Outline: EuFMD Training 2015-17

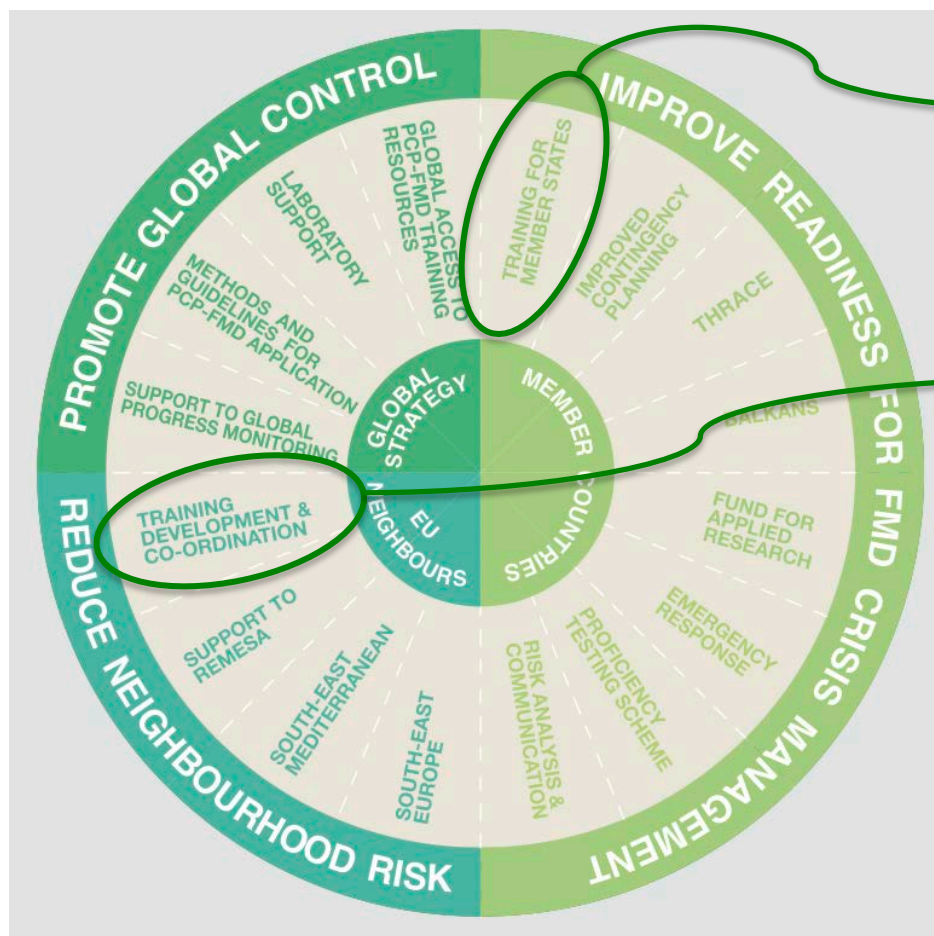


Component 1.1

Training for Member States



Outline: EuFMD Training 2015-17



Component 1.1

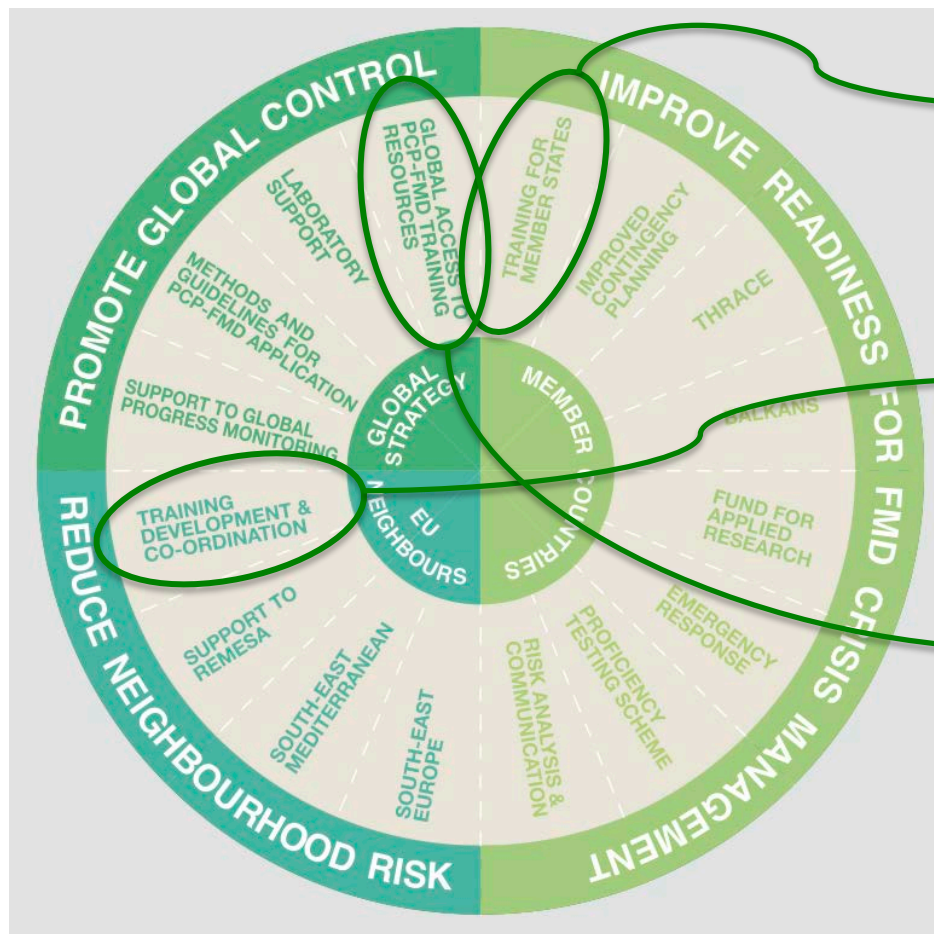
Training for Member States

Component 2.4

Pillar II training development
and co-ordination



Outline: EuFMD Training 2015-17



Component 1.1

Training for Member States

Component 2.4

Pillar II training development and co-ordination

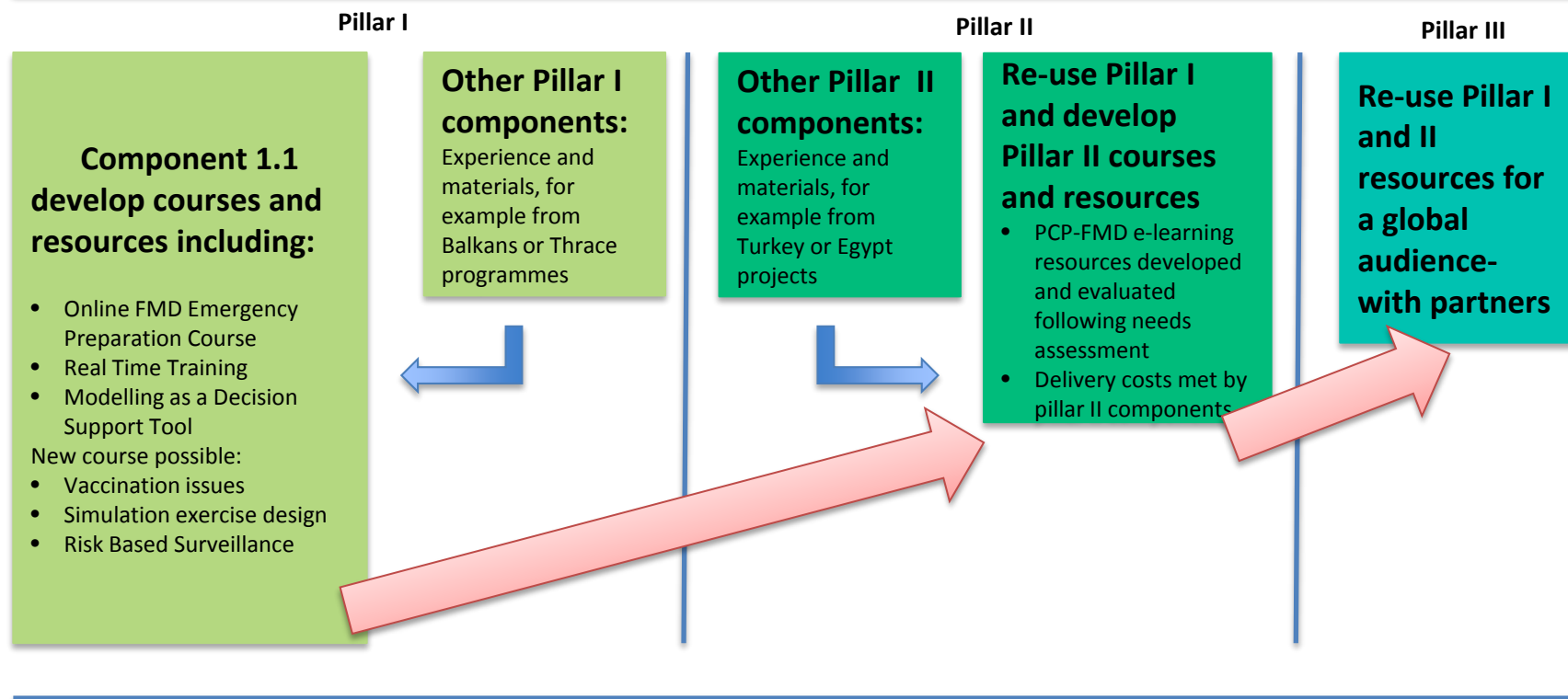
Component 3.4

Global access to PCP-FMD training resources



Outline: EuFMD Training 2015-17

Infrastructure: staff; e-learning website and knowledge bank design and maintenance; webinars software and support; needs assessment; monitoring and evaluation framework





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Training needs assessment: why and how?

Jenny Maud



Our training is needs based...

EuFMD training aims to **build capacity**... while making the best of limited resources



VS.....



Training needs assessment process

- 1) What **capabilities** are needed for FMD preparedness/control?
- 2) Which **personnel** need to have these capabilities?
- 3) How **do these personnel groups learn** best?
- 4) What **existing training** or resources are available?



Needs assessment methodology



Surveys ... but so much more

- Phone interviews with our training focal points
- Experience of EuFMD trainers
- Experience of GF-TADs and other partners, other training delivery organisations
- Feedback from training and e-learning participants

We are always learning more...



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EuFMD e-Learning: building the infrastructure for training

Jenny Maud



Updated e-learning platform

- New look!
- Now approx **4500** registered users
- Self-registration to access networks, online resources and open access courses
- E-learning support across programme including Open Session Online
- 2 webinars per week, 36 online courses
- Continued partnership with Royal Veterinary College, UK
- <https://eufmdlearning.works>

The screenshot displays the eufmd e-Learning platform interface. The top navigation bar includes links for Dashboard, Resource, Networks, and Contact. The main content area features a large banner for 'LANDSCAPES' with a woman wearing a headset, suggesting a webinar or live session. Below this, there is a section for 'Upcoming webinars' with a link to view planned webinars. A grid of 'Courses' and 'Knowledge Bank' items is visible, each with a thumbnail image. On the right side, there is a 'Twitter Feed' showing tweets from the @eufmd account. At the bottom, there is a section for 'Watch a recording of one of our recent webinars' with a video player and a description of the 'Progressive Control Practitioners' Network'. The footer contains the copyright notice for 2017 eufmd, logos for the European Commission, FAO, and Royal Veterinary College, and a 'Contact us' button.



Knowledge bank

Open access courses

Introduction
to Foot-and-
Mouth
Disease

Introduction
to the
Progressive
Control
Pathway

Introductory
epidemiology
(in
development)

Networks

Supporting
Member
States
Modelling
Contingency
Planning
Vaccination
Biorisk
Manage-
ment

Progressive
Control
Practitioners
Network

Reseau
Franco-
phone

Supporting
Regional
networks

Tutored online training courses

FMD Emergency
Preparation Course

FMD Investigation Training
Course

Socio-
economics

Risk analysis
along the
value chain

Post
vaccination
monitoring



FMD free
countries



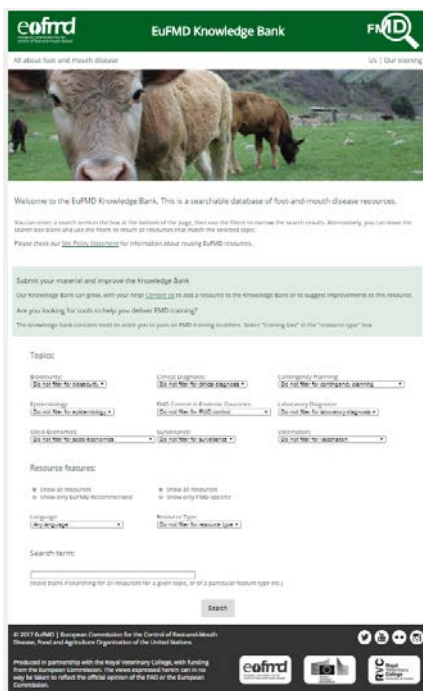
Countries not
free of FMD



Knowledge bank

Tools as well as training: EuFMD's Knowledge Bank

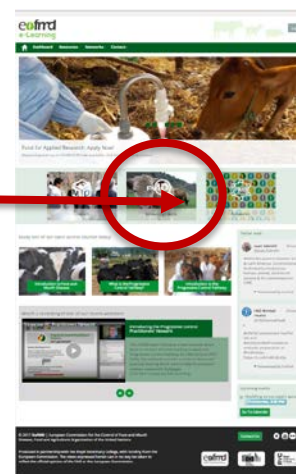
A searchable, categorised database of FMD resources, **training tools**, webinars, videos and job aids



Includes access to over
40 webinar recordings



To access: click the icon on the
front page of our e-learning
website.
**Please contribute useful
resources!**





Knowledge bank

Open access courses

Introduction
to Foot-and-
Mouth
Disease

Introduction
to the
Progressive
Control
Pathway

Introductory
epidemiology
(in
development)

Networks

Supporting
Member
States
Modelling
Contingency
Planning
Vaccination
Biorisk
Manage-
ment

Progressive
Control
Practitioners
Network

Reseau
Franco-
phone

Supporting
Regional
networks

Tutored online training courses

FMD Emergency
Preparation Course

FMD Investigation Training
Course

Socio-
economics

Risk analysis
along the
value chain

Post
vaccination
monitoring



FMD free
countries



Countries not
free of FMD



Open access
courses

Introduction
to Foot-and-
Mouth
Disease

Introduction
to the
Progressive
Control
Pathway

Introductory
epidemiology
(in
development)

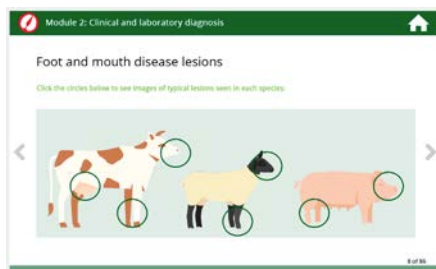
Introduction to the Progressive Control Pathway e-learning



Six modules:

1. Why is FMD control challenging?
2. What is the role of the PCP in the Global FMD Control Strategy?
3. What is risk-based FMD control?
4. What activities are needed to progress on the PCP?
5. How is a country assigned a PCP stage?
6. What is my role in FMD control?

Introduction to Foot-and-Mouth Disease



Three modules:

1. Introducing FMD
2. Investigating FMD outbreaks
3. Controlling FMD



Knowledge bank

Open access courses

Introduction
to Foot-and-
Mouth
Disease

Introduction
to the
Progressive
Control
Pathway

Introductory
epidemiology
(in
development)

Networks

Supporting
Member
States
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along the
value chain

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vaccination
monitoring



FMD free
countries



Countries not
free of FMD

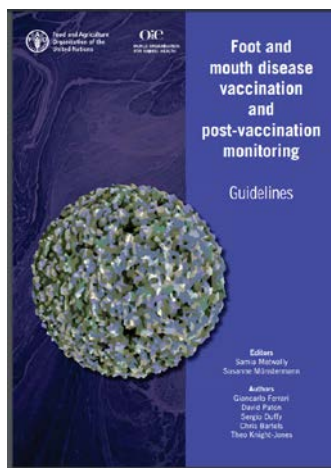


“In-depth e-learning”

Aimed at those working in central veterinary services to directly develop or implement Risk Based Strategic Plans for FMD control.

Topics were identified by training needs assessments: these skills are complex and require in-depth tutorial support of a relatively small audience

4 hours of study per week for 6 weeks, combination of background reading, interactive exercises and live tutorial support. Where possible **based around learning to apply existing guidelines**, focusing on the practical support needed to implement guidelines.



Tutored online training
courses

FMD Emergency
Preparation Course

FMD Investigation Training
Course

Socio-
economics

Risk analysis
along the
value chain

Post
vaccination
monitoring



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Pillar I: Training for Member States

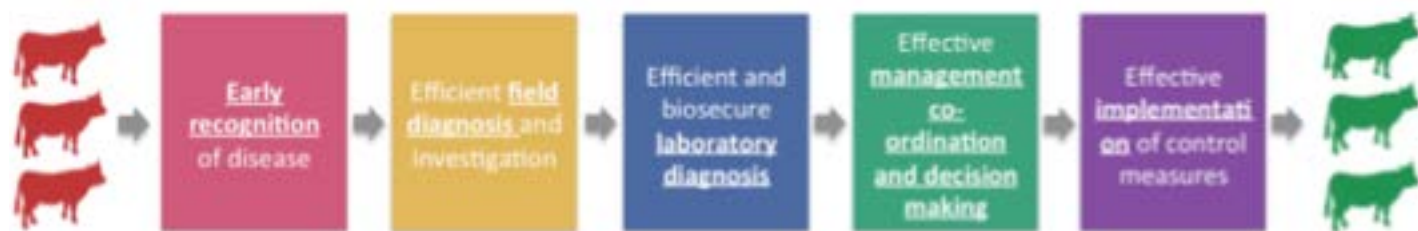
Maria De la Puente Arevalo



Needs Assessment Process

Encourage **strategic selection** of training courses by asking MS focal points to consider:

1. What is needed for an effective response to an FMD outbreak?



2. Who carries out these activities?
3. What knowledge, capabilities and skills are needed by these groups in order to carry out activities effectively?
4. What FMD related training has already been carried out?
5. Self-assessment of core competencies



Results

Use
epidemiological
tools to guide
decision making on
control

Rapidly organise an
emergency
vaccination
programme

Livestock keepers
recognise and
report disease





Training Menu

10 training credits per Member State. Self assessment tool guided focal points as to which courses best addressed the capacity gaps identified:

Course	Training credits
1) Real Time Training	3 credits for 1 participant
2) Online FMD Emergency Preparation Course: English language	1 credit for 20 participants
3) Online FMD Emergency Preparation Course: Tailored National Course	6 training credits for 120 participants
4) Online FMD Emergency Preparation Course: subsequent national course	4 training credits for 120 participants
5) Online Course Risk Based FMD Surveillance	At no cost of training credits
6) Workshop: "Putting vaccination into practice"	2 training credits for one participant
7) Workshop "Managing a crisis"	2 training credits for one participant
8) Workshop "FMD Simulation exercises"	2 training credits for one participant
9) Workshop "To vaccinate or not to vaccinate: using modelling to evaluate FMD control options "	2 training credits for one participant
10) Laboratory Training course	2 training credits for one participant

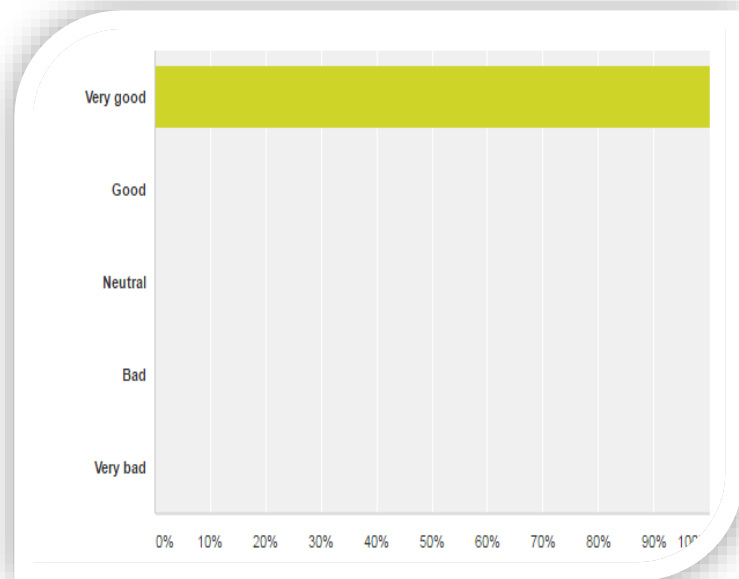


Real Time Training in Kenya

Number of trainees during 2015-2017: 37

Increased focus on “train the trainers” support to national cascade of training

How would you rate this week overall?



This has been a great experience, with great trainers and trainees. I highly recommend it.

This RTC changed my life! I want to come back to Kenya to help fighting FMD! :)



Support to national cascade of FMD training

Two pilot projects

Germany

- Fully funded by Germany
- 22 participants
- Pre/post workshop in Germany, RTT in Kenya
- Strong emphasis on cascade training

Italy

- 2-3 level cascade- 30 per course
- Support provided to development of training concept and specific materials designed to be of use to all MS





Support to national cascade of FMD training

Two pilot projects

Germany

- FMD training
- FMD training
- FMD training
- FMD training
- FMD training
- FMD training

Support to national training programmes is important, but additionally a **“train the trainers”** approach is **challenging and needs continued and improved support**

Italy

- 2-3 level cascade- 30 per course
- Support provided to development of training concept and specific materials designed to be of use to all MS





Support to national cascade of FMD training

Two pilot projects

Germany

- Fully funded by Germany
- 22 participants
- Pre/post workshop in Germany
- RTT in Kenya
- Strong emphasis on practical training

Italy

- 2-3 level cascade- 30 participants
- Support provided to development of training concept and specific materials designed to be of use to all MS



Working in **partnership with Member States** has been a success. There may be opportunities to extend this including **cost sharing for regional training courses.**





FMD Emergency Preparation Course

Number of trainees during 2015-2017: **901**

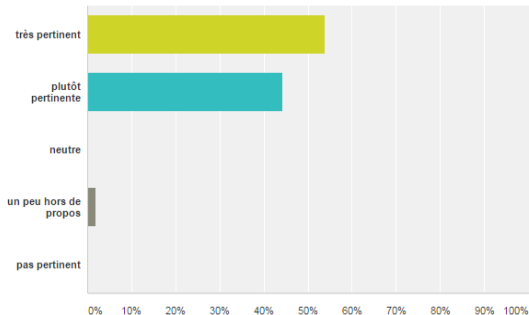
4 English language courses

5 national tailored courses (UK, Spain, France, Estonia, Serbia)

- Member States appreciate that many vets can be trained at once, particularly in the case of tailored courses.
- The discussions in the forum are pointed out as one of the favorite parts of the course
- E-learning in national languages is particularly effective

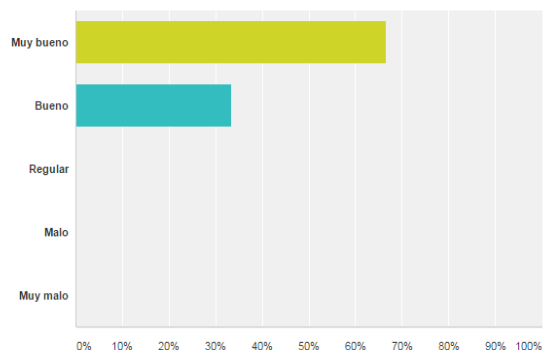
Le cours était pertinent à vos besoins
spécifiques?

Answered: 52 Skipped: 1



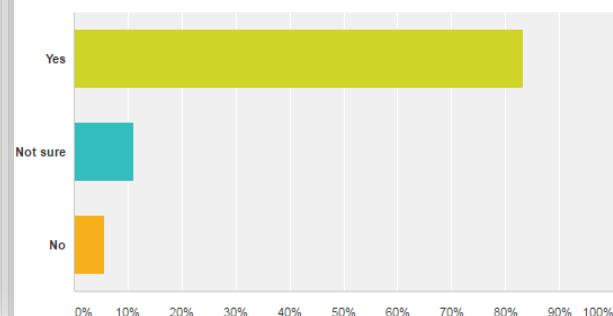
En general, ¿cómo evalúas este curso?

Answered: 63 Skipped: 0



Would you be interested in completing
further training through the EuFMD e-
Learning site?

Answered: 54 Skipped: 5





Laboratory training course in partnership with The Pirbright Institute

Number of trainees during 2015-2017: **5**

Reports sent by participants after attending the course

The training was very valuable, complete. It was also a perfect opportunity to see the practical application of biosecurity measures in this new laboratory and modern infrastructure

It was a big advantage to be as few as three participants as we all got to do all steps in every method used.

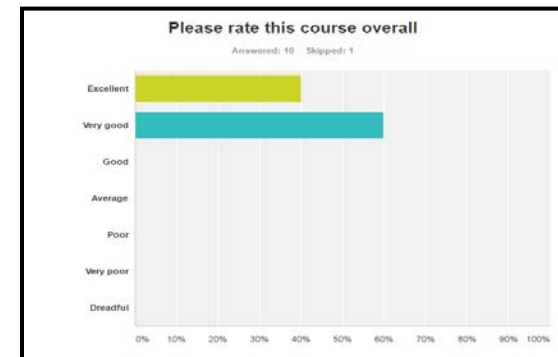
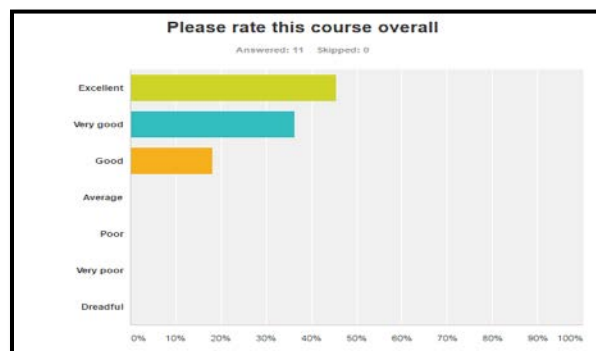
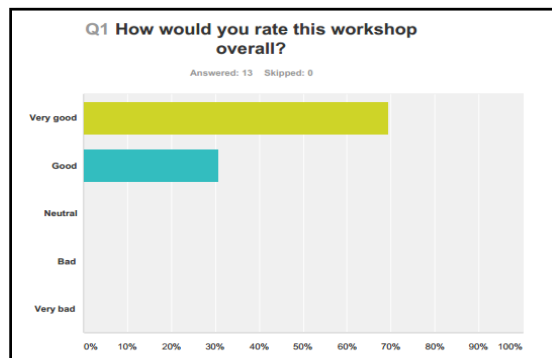




Training workshops

Managing a crisis (16), Modelling as a Decision Support Tool (15),
Simulation Exercises (13), Putting Vaccination into Practice (12)

- Each course with an interactive, scenario and discussion based approach, facilitated by a pre-course e-learning induction course
- Each course aimed to additionally generate new tools and job aids to benefit all Member States





Training workshops

We learn from the feedback given by participants:

- How to improve our next workshops
- Gaps in preparedness across Member States, where more support from EuFMD is needed

Let's see an example...





Putting vaccination into practice: feedback from participants

A guideline and checklist for developing a vaccination programme operational plan

More clarity and guidance on the EU Vaccine Bank functions and limitations

Consideration of common supply arrangements for specialised operational equipment

Job aids to support understanding and implementation of EC legislation relating to emergency vaccination





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Pillar II: Training development and co-ordination

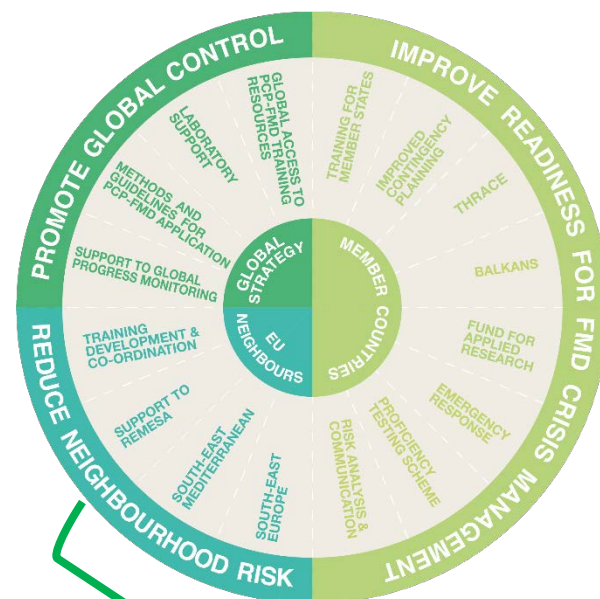
Karima Ouali



Training in Pillar II occurs in two ways

Country progression on the PCP requires
tailored in-depth support...

Under components 2.1, 2.2, 2.3
Support tailored to the needs of
individual countries through a
programme of workshops and
continuous expert support.





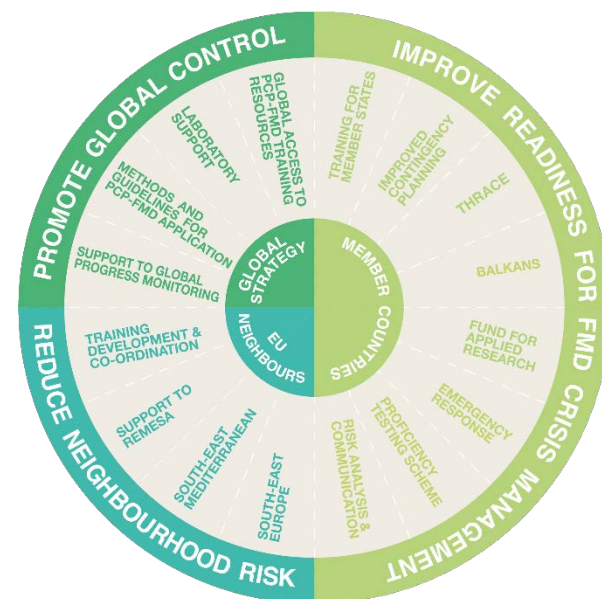
Training in Pillar II occurs in two ways

Country progression on the PCP requires
tailored in-depth support...

Under component 2.4

Many training needs are similar
across all pillar II countries

Identify the common needs,
address these with the
development of training resources,
job aids and online courses which
can be used across Pillar II





Face to face training in Pillar II countries

RBSP development in Mauritania



Real time training cascade in Egypt

RBSP development in Jordan





Face to face training in Pillar II countries

4 Weeks Practical Epidemiology Training Turkey



Support to field outbreak investigation training in Turkey



Our experience of delivery of
this face-to-face support has
been key to understanding the
regional risk situation, gaps and
needs

Laboratory training Libyan VS





Pillar II Training Needs Assessment

Based on previous Pillar I Training
Needs Assessment

- Considered multiple personnel groups (farmers to decision makers)
- Considered PCP Stage, referred to PVS assessment, considered importance given to FMD control vs other diseases
- Considered language and technology competencies

4) Assessment of core competencies



The activities and target audiences outlined above have been expanded in the table below. Please rank each competency according to your self-assessment of current capacity. Please write in the comment section if you have a specific comment regarding the described competency.

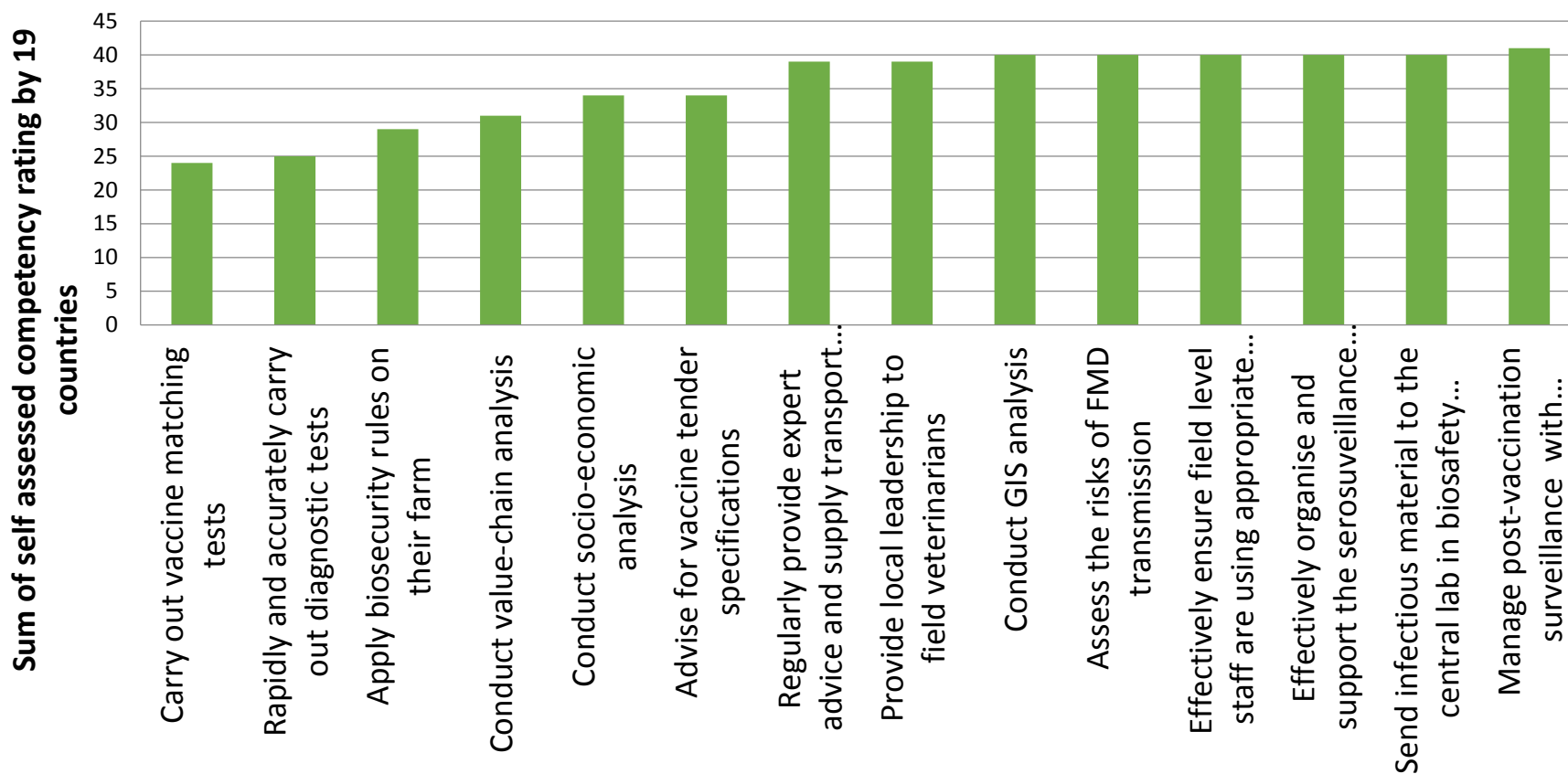
Personnel	Competency	Current capacity				
	These people are able to...	<i>Please estimate competences of different groups of stakeholders from 0 to 4 (where 0= no capacity, 4=high advanced competence) by checking the appropriate check box</i>				
CENTRAL LEVEL						
Central veterinary bodies responsible for disease prevention and control activities on the country level coordination and direct the delivery of biosecurity, surveillance, disease preparedness and control measures and international level.						
Decision makers (CVO office and Ministry level)	Understand the value of risk-based approaches to FMD surveillance and control and the Progressive Control Pathway (PCP)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	Advocate the importance of FMD control to higher level policy decision makers	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
Central Veterinary Authorities/epidemiology (FMD) experts	Understand the PCP principles and how their country could progress in PCP stages	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	Apply epidemiology and biostatistics skills to effectively plan and analyse FMD surveillance using sample size calculations when appropriate	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
	Conduct risk-factor analysis on data of FMD outbreak investigations or FMD NSP-antibody surveys	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

Returned by 19 pillar II countries



What were the capacity gaps identified?

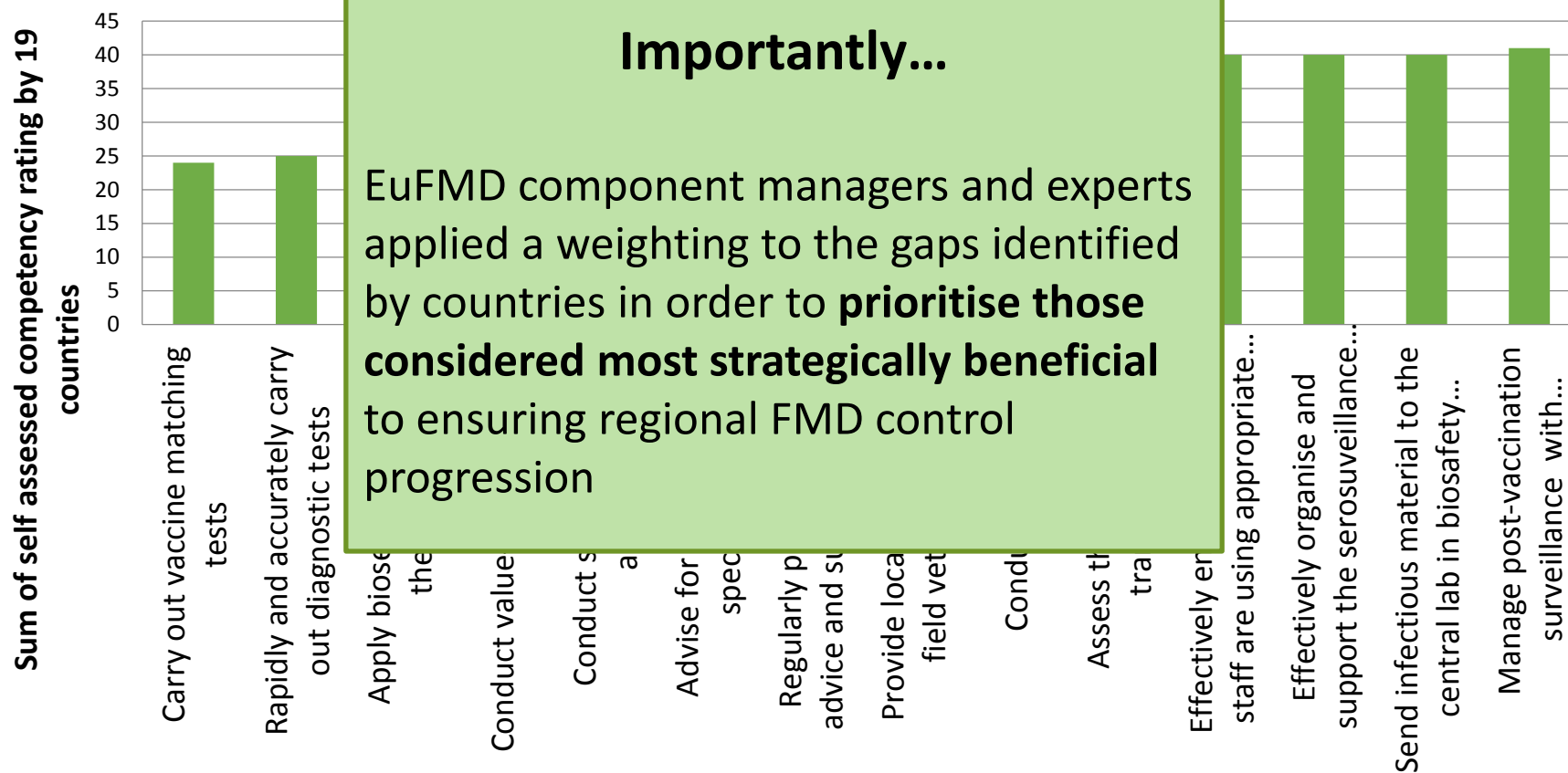
10 lowest competencies as rated by all Pillar II countries:





What were the capacity gaps identified?

10 lowest competencies as rated by all Pillar II countries:





How have the gaps been addressed?

Central Veterinary Services	
Competency gaps identified	<ul style="list-style-type: none"> Analyse outbreak data using basic skills in epidemiology Assess socio-economic impacts of FMD Analyse risk along the value chain and develop a Risk-Based Strategic plan Plan or implement post vaccination monitoring

Open access:

Introduction to the Progressive Control Pathway

Introductory epidemiology and biostatistics (coming soon)

In depth e-learning development:

- FMD Socio-economic Impact Analysis
- Risk Analysis Along the Value Chain

And funded under pillar III

- Post Vaccination Monitoring
- Laboratory diagnostics (with Pirbright)





How have the gaps been addressed?

	Regional and field level veterinary services
Competency gaps identified	Diagnose FMD, submit correct samples to laboratory, conduct outbreak investigation, apply effective biosecurity, advise on preventative and outbreak response measures.

Online Field Investigation Training Course: 150 places per course

- Arabic (JUST partnership)
- French
- Turkish

FMD vaccines and vaccination

Differentiating between vaccinated and infected animals

Differentiating between vaccinated and naturally infected animals is important. Vaccinated animals can be differentiated from those naturally infected by testing for antibodies to the structural and non structural proteins (NSP/SP).

Situations where such tests might be applied include:

- Coming out one and back in order to determine the level of natural infection in a population
- Conducting surveillance to prove freedom subsequent to an FMD outbreak where vaccination was used as a control measure

19 of 32

FMD vaccines and vaccination

Key features of a vaccination campaign

However vaccines are used, the following key features should be followed in order to ensure that the vaccination campaign is effective:

Click on each feature to learn more:



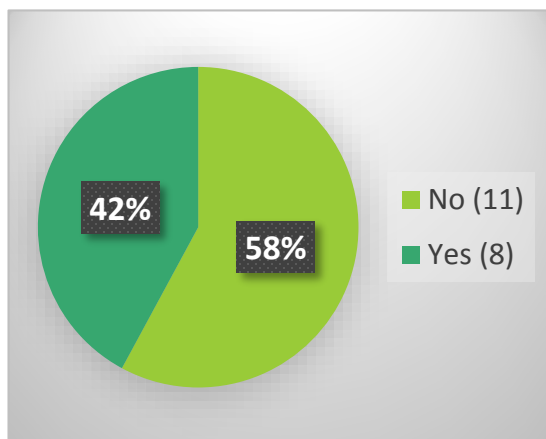
How have the gaps been addressed?

	Livestock owners and industry stakeholders
Competency gaps identified	Apply preventative measures, especially biosecurity before and during an outbreak

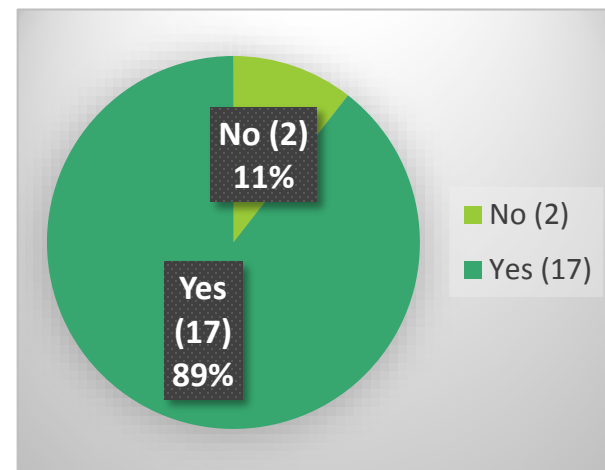
Knowledge Bank, Job Aids to SUPPORT NATIONAL VETERINARY SERVICES

- Cascade training programme, outbreak response training in Egypt
- New resources under agreements with JUST

Has any FMD related training been from other providers?



Does your national veterinary service organise FMD related training for government veterinarians, private practitioners or farmers?





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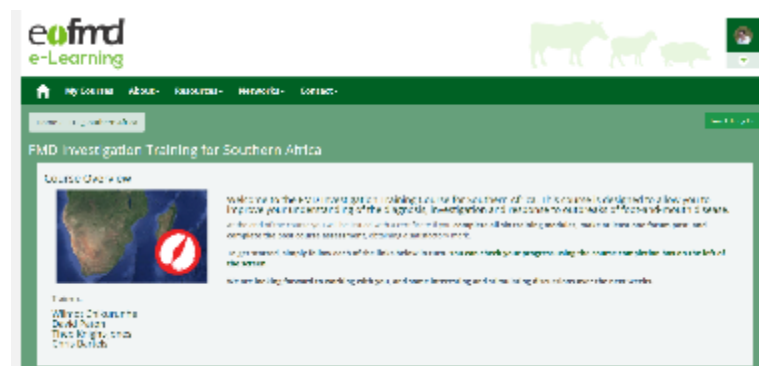
Pillar III: Global access to PCP-FMD Training Resources

Jenny Maud



Investigating the use of PCP-FMD training resources through global partners

- First region Southern Africa (FAO-Subregional office)
- Recruitment of STP (Wilmot Chikurunhe)
- Needs assessment to VS
- Pilot online course
- Post course interviews





Southern Africa

Similar training needs to Pillar II countries

- Field level awareness and implementation of FMD surveillance and control measures
- Central level risk analysis
- Socio-economic impact analysis
- Monitoring and evaluation of FMD control programme implementation

Lively interactions in course discussion forum

E-learning is a modality that works!





Sustainability is key:

“The LTC endorses the proposal by FAO for creation of an e-learning hub for capacity building of animal health practitioners on TADs and zoonotic diseases in the SADC region”.

Discussion Forum: Aetiology and Pathogenesis

Here, think, add a new discussion topic, or start a new group if you would like to reply to somebody else's post, please use the [reply](#) link in the bottom right of their post rather than making a new discussion topic.

[Add a new discussion topic](#)

Discussion	Started by	Replies	Viewed	Last post
Respiratory infection	 Kushal Kumar	0	0	Kushal Kumar Wed, 11 Jan 2017, 4:54 AM
How common is genetic inheritance of virus?	 Wimol Chakrabarti	0	0	Kushal Kumar Wed, 11 Jan 2017, 4:54 AM
Can HIV survive in the mouth of people? If yes, of what significance is this in the epidemiology of HIV?	 Wimol Chakrabarti	2	0	George Datta Wed, 11 Jan 2017, 4:54 AM
RO: Does vaccination reduce virus like infections.	 Dad Mahalingam	1	0	Julien Kabanian Sun, 8 Jan 2017, 2:41 PM



South Asia

- Partnership Regional Support Unit for SAARC
- Very high level of interest (170 participants)
- Very interactive
- Strategically very important region → Continued support



Unrestricted/Illegal movement of Animals

by **Patil Sharanagouda** - Tuesdav, 11 April 2017, 6:22 AM

Unrestricted/Illegal movement of animals across peaceful borders is a major risk factor in controlling of FMDV movement as the virus can travel for long distance. India has porous borders with Myanmar and Bangladesh though Bangladesh has little vigilance check points along the borders with India. In spite of that illegally animals are lifted across the borders. How to check it??

Sharing here a video obtained from my friend.

thanks https://eufmdlearning.works/pluginfile.php/12782/mod_forum/post/9619/Lifting%20of%20animals%20across%20Indian%20borders.mp4

Patil





Other training in Pillar III

- Training of experts (3.2): OIE staff recently
- In “depth” courses under PII: 20 places made available globally via FAO/OIE
- Laboratory online training in partnership with The Pirbright Institute





Knowledge

Open access courses

Introduction
to Foot-and-
Mouth
Disease

Introduction
to the
Progressive
Control
Pathway

Introductory
epidemiology
(in
development)

Networks

Supporting
Member
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phone

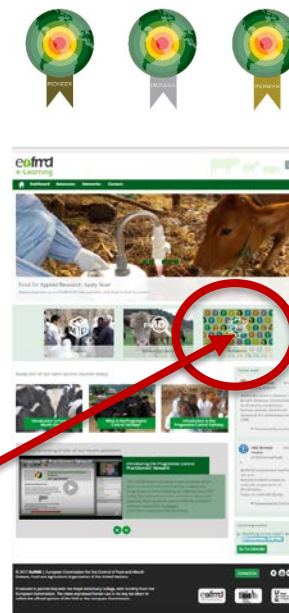
FMD free
countries

Progressive Control Practitioners' Network

Training and experience sharing network: 2 webinars and at least 3 online exercises covering a different topic each month: so far NSP sero-surveys and outbreak investigation. Certificates and “levels” of completion.



To join: Click the
networks icon





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Conclusions and next steps

Jenny Maud



Improving and extending the EuFMD training programme 2017-19

Continuous process



Training needs assessment is a continuous process

Regional languages

E-learning for regional risks, and regional risk info

Supporting national, integrated training

Regional priorities

External funding and working with partners

- Our relationships with countries, and particularly with the Pillar I training focal points, are important in understanding and responding to needs.



Improving and extending the EuFMD training programme 2017-19

Continuous process

Regional languages



**E-learning for regional
risks, and regional risk info**

**Supporting national,
integrated training**

Regional priorities

**External funding and
working with partners**

Training in regional languages

- Participants engage much more effectively with e-learning in their first language
- Encourage further national language training courses and resources in PI
- Translation of in-depth courses in Pillar II
- Development of Francophone network to echo activities of Progressive Control Practitioners' network



Improving and extending the EuFMD training programme 2017-19

Continuous process

Regional languages

**E-learning for regional
risks, and regional risk info**



**Supporting national,
integrated training**

Regional priorities

**External funding and
working with partners**

E-learning to address regional risks, and access on the ground risk information

- Continued regional instability (Syria and Libya) and influence of importers on transparency of exporting countries leads to lack of disease risk information.
- Security prevents face to face training → e-learning, particularly in Arabic.
- E-learning courses can be a way to access field level disease information.



Improving and extending the EuFMD training programme 2017-19

Continuous process

Regional languages

**E-learning for regional
risks, and regional risk info**

**Supporting national,
integrated training**



Regional priorities

**External funding and
working with partners**

**Continue to aim to reach wider
stakeholders by supporting national
training across programme**

- National e-learning courses
- Involvement of stakeholders
- Knowledge Bank and job aids
- Cost sharing/regional initiatives in Pillar I



Improving and extending the EuFMD training programme 2017-19

Continuous process

Regional languages

**E-learning for regional
risks, and regional risk info**

**Supporting national,
integrated training**

Regional priorities



**External funding and
working with partners**

In Pillar III

- Continue support to South Asia
- Extend support to West and Central Africa
- Support to other regions based on GFTADs priorities



Improving and extending the EuFMD training programme 2017-19

Continuous process

Regional languages

**E-learning for regional
risks, and regional risk info**

**Supporting national,
integrated training**

Regional priorities

**External funding and
working with partners**



**We continue to recognise demand for
EuFMD training across Pillar II and III**

With Member State support we may seek
possibilities for external funding to:

- Support translation
- Delivery of national level training
- Development of new e-learning courses or resources

Regional academic partnerships may be a route to
improved sustainable delivery.



Acknowledgements

EuFMD training is a team effort....

Keith Sumption, Nadia Rumich, Cecile Carraz, Enrique Anton, Erica Tomat, Chiara Addari, Emanuella Pirello, Maurizio Licastro, Silvia Clementelli

Pillar I:

Magdalena Gajdzinska, Malin Grant, Laura Letwin, Maria DelaPuenta Arevalo, Hendrik Campor, Mark Hovari, Paolo Motta, Nick Lyons, Eunice Chepkwony

Pillar II:

Chris Bartels, Fabrizio Rosso, Kees van Maanen, Gunel Ismayilova, Mounir Khayli, Karima Ouali, Melissa McLaws, Carsten Potzch, Joao Alfonso

Pillar III:

Chris Bartels, Kees van Maanen, Giancarlo Ferrari, Wilmot Chikurunhe, Bishnu Adhikari, David Paton, Theo Knight-Jones

And our partners at the Royal Veterinary College (UK) and the Jordan University Institute of Science and Technology



Get prepared!

Side event 5.15

- All of you are invited to join us, but particularly Training Focal Points are very much invited to stay!
- We are going to discuss on:
 - E-learning. Online courses.
 - Training menu
 - National training
 - Get prepared
 - Regional approach





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eu
fmd
european commission for the
control of foot-and-mouth disease



European
Commission

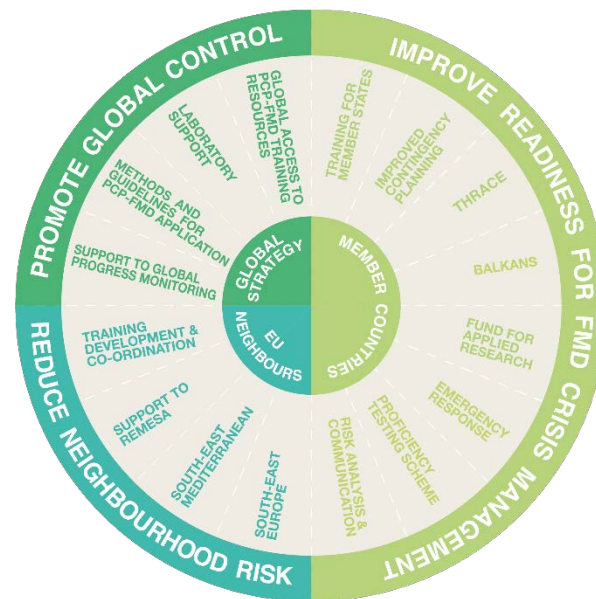


42nd General Session of the EuFMD

Report of the Executive Committee on the actions since the 41st General Session

K. Sumption, J. Angot

The European Commission for the Control of Foot-and-Mouth Disease





Pillar III



Executive Committee Oversight

Gediminas Pridotkas(3.1), Jean-Luc Angot (3.2),
Christianne Bruschke (3.3), Martin Blake (3.4)



Component 3.3 Laboratory Support

Component manager: *Kees van Maanen*

Active support from: Don King, Maria Teresa Scicluna, Labib Bakkali-Kassimi

Improved international FMD reference laboratory services and their contribution to regional epidemio-surveillance networks

In collaboration with the World Reference Laboratory in Pirbright and the OIE/FAO Lab Network for an increased level and quality of surveillance information

We have contracted the Pirbright Institute to carry out several services and produce outputs following from this objective through a letter of agreement.

We have supported networks in East Africa and West Eurasia through the organization of webinars and online meetings (also under component 2.1)

We have set up a Francophone network in collaboration with ANSES, France to engage NRLs and other interested parties in West and North Africa.

We will contribute to the development of an FMD Laboratory Investigation Training course by TPI.



Component 3.3 Laboratory Support

FMD
NETWORK

EARLN

East African Regional Laboratory Network



Food and Agriculture
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2016

Title	Speakers	Date
Progressive PCP of FMD in East Africa	Nick Lyons, Ayebazibwe Chrisostom (Uganda), M. Teresa Scicluna	17 th February
Introduction to Risk Based Strategic Plans	Chris Bartels, Sam Okuthe (Ethiopia)	17 th March
Economic impact of FMD: an introduction and examples from Ethiopia and Tanzania	Jonathan Rushton, Wudu Jemberu	14 th April
Advanced outbreak investigations	Chris bartels, Yazeed Khalliel (Sudan)	12 th May
Risk based surveillance	Chris Bartels, Aldo Dekker	22 nd June
Biosafety and biosecurity at all levels for FMD surveillance, control and eradication	Kirsten Tjørnehøj, Eunice Chepkwony (Kenya), Valerie Mioulet	7 th July
Vaccine matching: why should it be considered an important tool for the control of foot-and-mouth disease?	Anna Ludi, Tesfaalem Teklegiorghis Sebhatu (Eritrea)	28th September

**OIE/FAO FMD reference laboratories
meeting, 2016**
Anses, France





Component 3.1, 3.2: Progressive Control Pathway

Component managers: *Chris Bartels*



Methods and guidelines for application of PCP-FMD

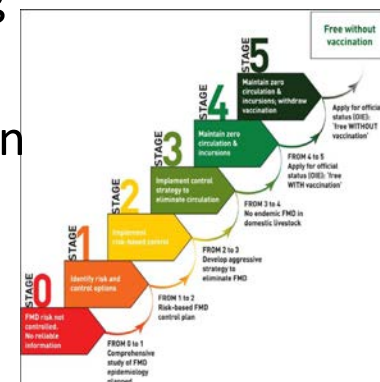
to enhance the international capacity for the application of the EuFMD/FAO/OIE
PCP-FMD through development of tools, guidelines and knowledge transfer.

We have supported the FAO/OIE FMD Working Group in organizing
and running of FMD regional Roadmap meetings.

We have actively taken part in the process of country acceptance in
a specific PCP-FMD Stage.

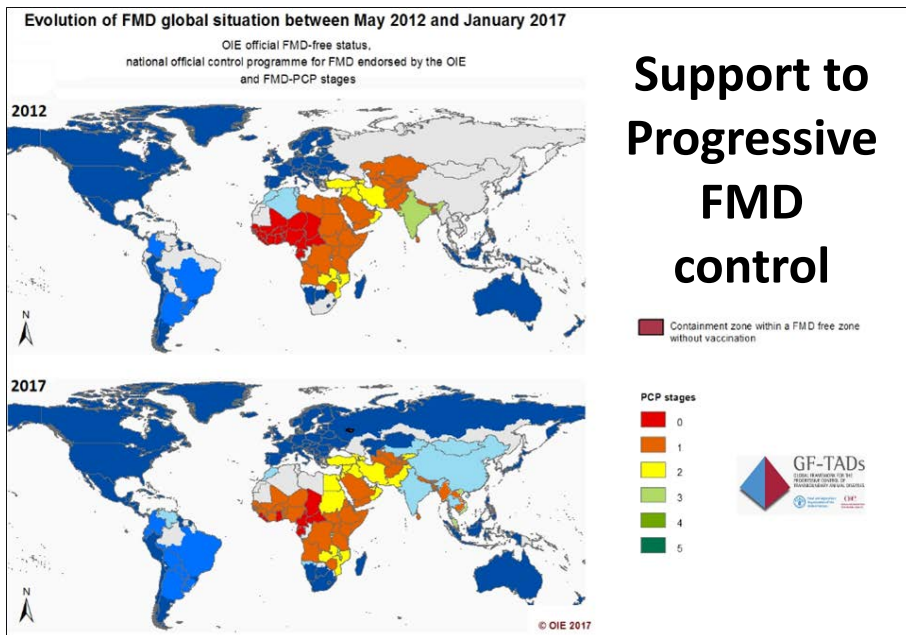
We have developed guidelines and templates for progressive
FMD control.

We have conducted training and e-learning materials on progressive FMD control
for regional FAO and OIE staff.





Component 3.1, 3.2: PCP-FMD



E-training on PCP-FMD

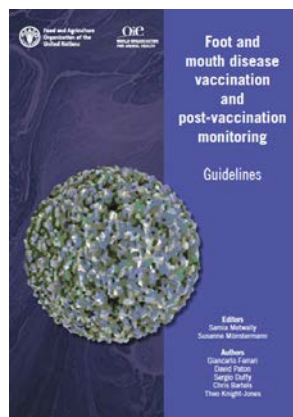


Regional Assessment Group



PCP-FMD guidelines

Guidelines on Post-Vaccination Monitoring





Component 3.4: Global access to PCP-FMD training resources

Component managers:

Jenny Maud, Chris Bartels with

Wilmot Chikurunhe and Bishnu Adhikari



We have partnered with the FAO Sub-regional office for Southern Africa, and the FAO Regional Support Unit for South Asia and sought guidance from the GF-TADs FMD working group, OIE regional offices and regional development partners.

We have listened to the training needs of countries through questionnaires, interviews, regular online contact and attendance at regional meetings.

We have conducted two online training courses, one in each region.

We have developed a Progressive Control Practitioners' Network which provides regular informal training to global colleagues.



Component 3.4: Global access to PCP-FMD training resources



Discussion Forum: Aetiology and Pathogenesis

Where do I add a new discussion topic to start a new topic? If you would like to reply to an existing discussion post, please use the 'reply' link in the bottom right of that post rather than making a new discussion topic.

Discussion	Started by	Replies	Created at	Last post
Request for extension	Chikumbiwe	0	0	Discussion topic: Request for extension
Can you add a new discussion topic to start a new topic?	Walter Chikumbiwe	4	4	Discussion topic: Can you add a new discussion topic to start a new topic?
Can you add a new discussion topic to start a new topic?	Walter Chikumbiwe	2	2	Discussion topic: Can you add a new discussion topic to start a new topic?
Can you add a new discussion topic to start a new topic?	Chikumbiwe	1	0	Discussion topic: Can you add a new discussion topic to start a new topic?

Online training
courses with lively
discussion forum



SAARC Epinet
meeting

Progressive Control
Practitioners' Online
Network

PCP Practitioner Network - Introduction

Progressive Control Practitioners' Network

Outbreak investigation
Is there anything new? Yes, there is!

Wednesday 1 March 2017
10.00 am Central European Time (CET)- In English

FMD outbreak investigation

PC Practitioner Network



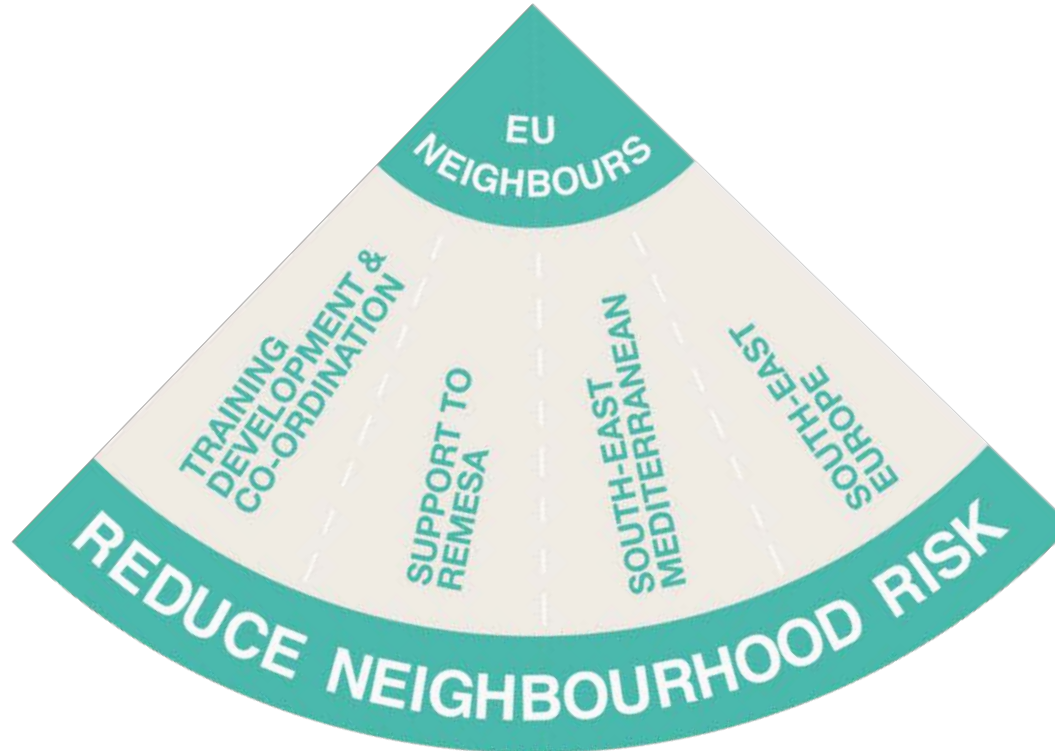
From Pillar III to Pillar II

- PCP principles and resources are used across Pillar II activities.
- 3.3 WRL activities co-ordinated also across Pillar II.
- Relationships developed with GF-TADs partners important for Pillar II activities.
- Training resources developed in Pillar II are made available to global audiences in Pillar III.





PILLAR II



Executive Committee Oversight

J. Angot U. Herzog (2.1);

J. Angot(2.2, 2.3); Martin Blake (2.4)



Component 2.4: Pillar II training development and co-ordination

Component managers:

*Jenny Maud, Chris Bartels with
Karima Ouali and Gunel Ismayilova*



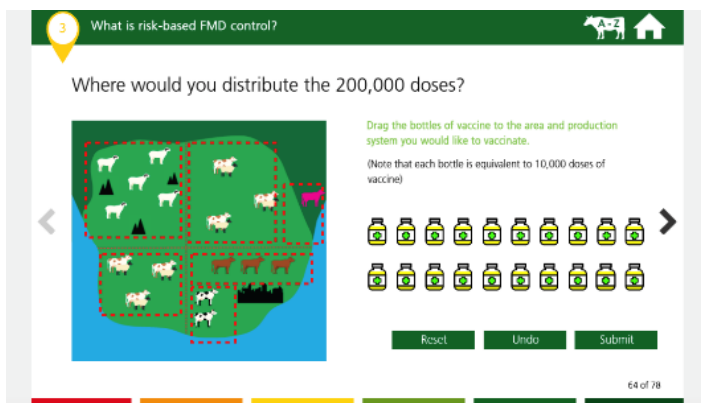
We have listened to the needs of countries through training needs assessment questionnaires, consultation with EuFMD experts and regional FAO/OIE partners.

We have initiated new partnerships for regional online training with the Jordan University of Science and Technology.

We have developed new training courses including Open-access: Introduction to the Progressive Control Pathway; Tutored courses: Field Investigation Training Course (French, Turkish, Arabic); In-depth tutored courses: Socio-economic Impact analysis, Risk analysis along the value chain.



Component 2.4: Pillar II training development and co-ordination



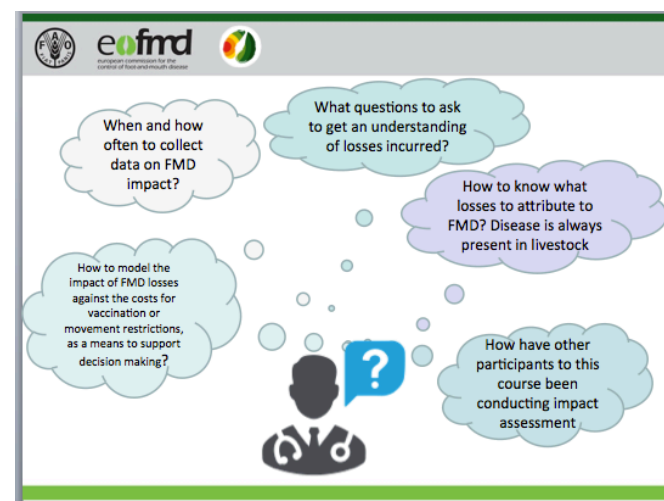
Open access
courses

Introduction to
the
Progressive
Control
Pathway

e-learning in
regional
languages

Training needs
assessment

In depth online
tutored courses





Component 2.3

Component managers:

Fabrizio Rosso, Karima Ouali

Mounir Khayli (STP from March to May)



Providing technical support to REMESA actions

Reducing the risk of FMD in the Eu-neighborhood

We are working with VS, FAO, OIE, GfTADS partners,
RESOLAB-FMD, OIE Reference LABs(IZSLER (Brescia),
ANSES (France)) and in coordination with REMESA RCU



We have listened to the needs of the countries **and have initiated** a **harmonized serosurveillance** in Morocco, Algeria and Tunisia.

We have encouraged regional cooperation through facilitating management meetings, simulation exercise, workshops and **supported** the implementation of laboratory network in the Western Sahel countries.

We have reestablished the contact with the Libyan veterinary services

We have facilitated the communication and the exchange of knowledge and experience between countries by creating an FMD Francophone network.



Component 2.3



Workshop and meeting Libyan VS



Workshop And field visit Mauritania

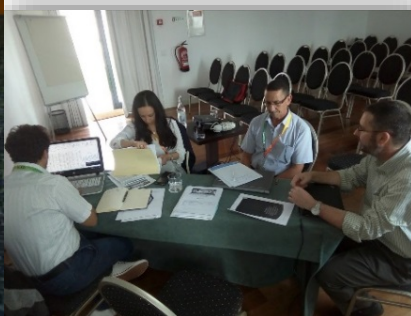


Simulation Exercise

Tunis



Workshop and meetings Algeria – Morocco and Tunisia



Regional Laboratory training Senegal





Component 2.2 South East Mediterranean

Component manager: *Kees van Maanen*

Active support from: *Chris Bartels*



Better FMD management in the neighbourhood of Cyprus and Israel

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

We have supported RBSP development and implementation in Egypt and Palestine through workshops and related activities and through a LLNL/AHW/GOVS program.

We have supported RBSP development in Jordan and Lebanon through workshops, by mail and teleconferences and by laboratory support.

We have encouraged regional collaboration by organizing a joint Israeli-Palestinian workshop on risk based surveillance, risk based vaccination and PV monitoring.

We have improved disease risk information through networking and increased virological surveillance (shipments Egypt, Sudan, Ethiopia) and an Arabic FITC course under an LoA with the Jordanian University of Science and Technology (July 2017).



Component 2.1: South East Europe: Turkey, Georgia and neighbors

Component
manager:



*Gunel
Ismayilova*

Consultants:



*Carsten
Potzsch*



*Zurab
Rukhadze*



*Naci
Bulut*



*Tamilla
Aliyeva*



*Satenik
Kharatyan*

Improving the ability of Turkey, Georgia and neighbouring West Eurasia countries in FMD management and control

We have listened to the needs of the countries and provided immediate assistance on request.

We have assisted the region directly on the spot in cooperation with other international organizations (FAO-SEC; OIE-Central Asia).

We have encouraged regional cooperation by organizing a regional simulation exercise and a regional TCC workshop on FMD Control.

We have facilitated a regional agreement on FMD information share and monthly reporting

We have supported FMD WG in organization of the West Eurasia Roadmap meetings.

We have provided trainings for the countries according their needs and requests, sharing responsibilities for better results.



Component 2.1



**TransCaucasus Regional
Simulation Exercise**
Georgia



**4 weeks Training in
Practical Epidemiology**
Istanbul, Turkey



**Statement of
Intentions**
OIE General Session

**TCC Workshop
on FMD
Control**
Bazaleti, Georgia



**7th West Eurasia
Roadmap Meeting**
Bishkek, Kyrgyzstan



**FMD risk reduction in the
Western Anatolian Region
of Turkey**
Cesme, Turkey



**4 Workshops on FMD Control
and surveillance in the West
Anatolia FMD Control Zone**
Ankara, Turkey



From Pillar II to Pillar I

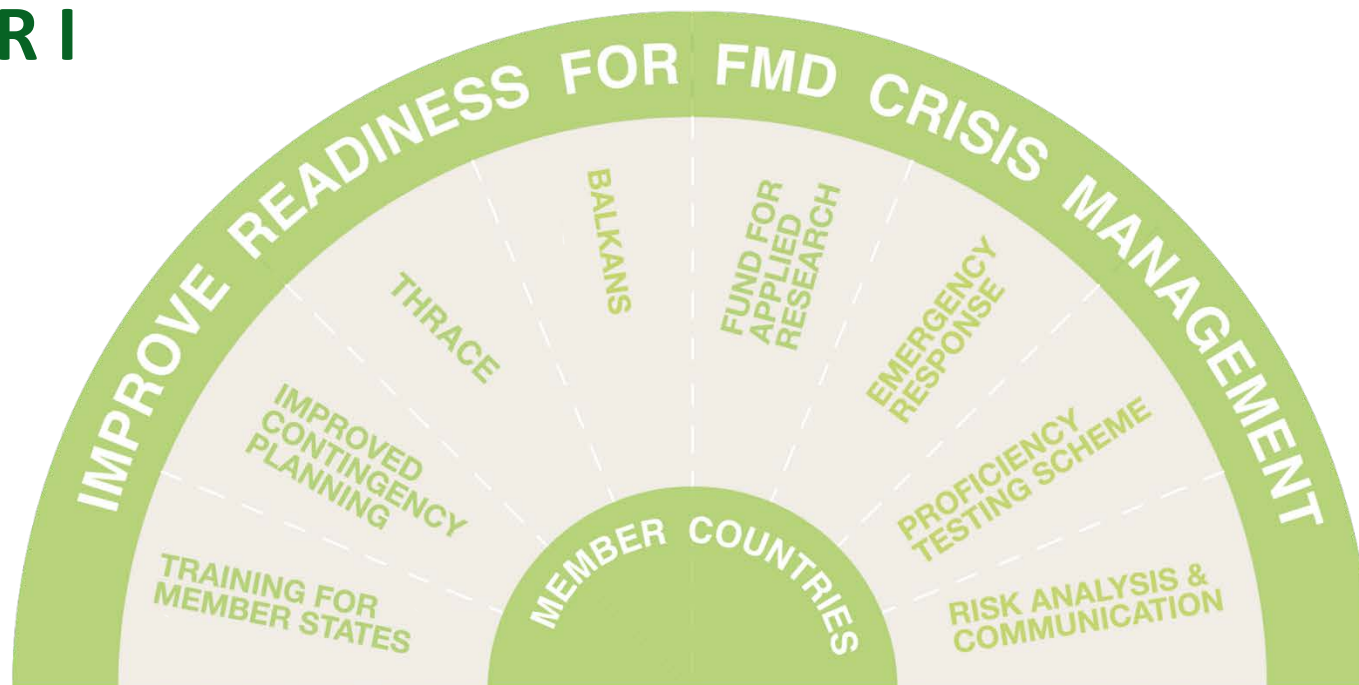
- Risk information is gathered during activities done under Pillars II and III and communicated through the Global Monthly Report.
- Training resources developed under Pillar I are available to audiences in all Pillars.
- Strong link due to the activities in Turkey.



**RISK information and communication from/to EuFMD Commission and Risk Managers
Flow chart**



PILLAR I



Executive Committee Oversight

Martin Blake (1.1), Ulrich Herzog (1.2),

Spiros Doudounakis (1.3), Budimir Plavsic (1.4)

Christianne Bruschke (1.5, 1.7), Lajos Bognár (1.6, 1.8)

Component 1.6: Emergency Response

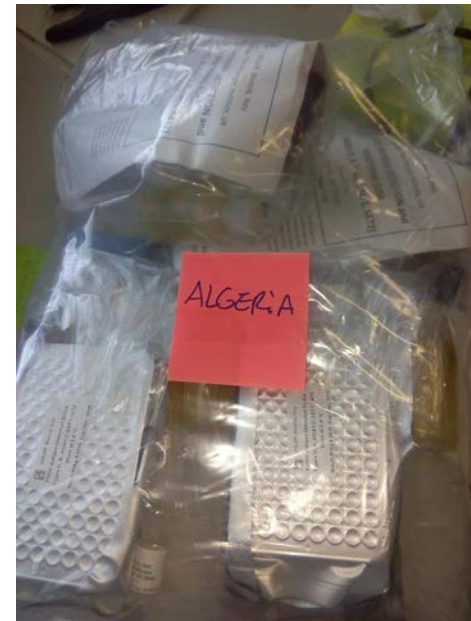
Component manager:

Keith Sumption

Emergency technical responses that assisted rapid management of FMD and/or other epidemiologically related exotic disease outbreaks in the MS or European neighborhood

We have assisted with supporting diagnostic kits

We have provided e-learning for field staff.





Component 1.8: Risk Analysis and Communication

Component managers

Marius Masiulis and Mark Hovari



Active support: M. Teresa Scicluna, Melissa McLaws

Kees van Maanen, Paolo Motta



**Improve quality, utility and availability of information on
FMD risk of entry into MS and facilitate its use by risk managers**

We have supported with the Global Monthly Reports, risk managers with updates for antigen bank priorities based on risk information gathered from the Pillars.

We have developed the PRAGMATIST TOOL.

We are promoting the development of a modeling approach for transnational spread of FMD.



Component 1.8: Risk Analysis and Communication

Guest Editors comments
It is a pleasure to write the editorial comments for the first EuFMD report of 2016. At this time of year, we often
wish you all the best for a quiet 2016. In this context, I call attention to the 2016 EuFMD report.

FMD experts' comments section

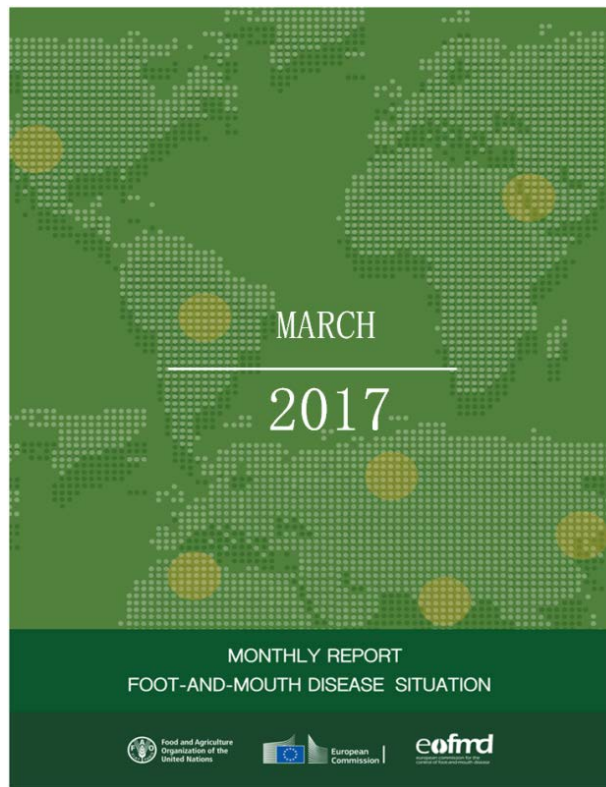
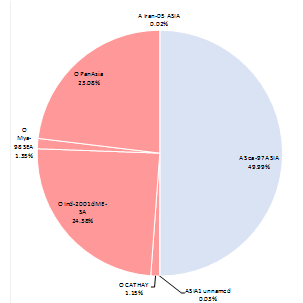
- (iii) The distribution of serotype SAT 2 (hapotype VI) has continued to expand in West Africa (Mauritania) and the Middle East (Oman) during 2014 and 2015, respectively. This lineage previously caused extensive FMD outbreaks in North Africa in 2012, representing the first cases due to this serotype in Egypt for over 50 years. At the same time sequence data was used to show that separate introductions of this virus lineage were experienced in Libya.
- (iv) FMD viruses (within the O/SEA/Mya-98 lineage) have been responsible for exotic field outbreaks in South Korea. Since 2010, sequence data indicates that there have been frequent introductions of this FMD virus lineage into the country providing an indication of the burden (infectious pressure) that exists due to ongoing FMD outbreaks in neighbouring countries in the East and Southeast Asia regions. In this context, it should be remembered that the FMD pandemic due to the O/SEA/Mya-98 lineage was characterized by outbreaks in East Asia (China, Korea and Japan) before those reported in South Africa and the UK (and Europe).



These changing patterns highlight the important work that is undertaken by the OIE/FAO FMD Laboratory Network. Meeting (picture above) shows delegates at the meeting held at CODA-CERVA in Brussels in November 2015.

Wish you all the best for a quiet 2016.
Dian King (Portugal, February 2016)

Serotype	Strain	Distribution within pool
A	A Iran-05 ASIA	0.02%
	A Sea-97 ASIA	49.95%
ASIA1	ASIA1 unnamed	0.03%
O	O CATHAY	1.15%
	O Ind-2001d ME-SA	24.36%
	O Mya-98 SEA	1.35%
	O PanAsia	23.06%



Monthly update of
Global FMD situation

V. REFERENCES - Superscripts

1. World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD), www.wrlfmd.org
2. WAHID Interface - OIE World Animal Health Information Database <http://web.oie.int/wahis/public.php?page=home>
3. Regional Reference Laboratory for FMD (ARRIAH, Russia) - (Dr. Svetlana Fomina)
4. Project Directorate on Foot and Mouth Disease (PD-FMD), Indian Council of Agricultural Research, Mukteswar, India (Dr B. B. Dash) FAO
5. Progressive Control of Foot and Mouth Disease in Pakistan, - (Dr. Manzoor Hussain, National Project Director and Dr. Muhammad Ajmal, Project Coordinator)

Constant provision of exclusive
information from
**10 Regional and National
Reference Laboratories**

PRAGMATIST

Estimated prevalence of viral serotypes
and viral lineages per Pool and Country

**Result of livestock pop X FMD incidence X
proportion of circulating FMDV lineages**

Melissa McLaws and Maria Teresa Scicluna



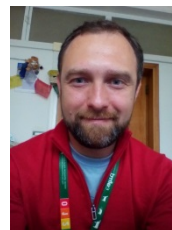
Component 1.3: THRACE

Component managers:

Artem Skrypnyk, Anna Zdrakova, Miriam Casey, Paolo Motta

Improving surveillance and management of FMD and other exotic diseases in the Thrace region of Greece, Bulgaria and Turkey

Working together with FAO, OIE, and EC



We have been in constant contact encouraging cooperation between Greece, Bulgaria and Turkey.

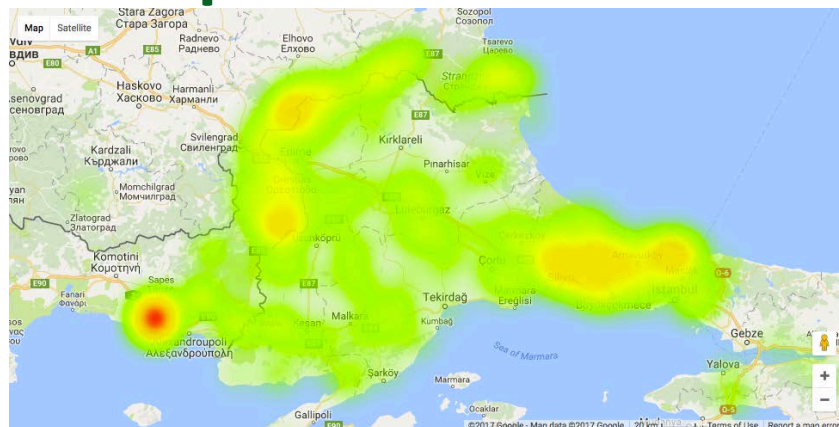
We have maintained surveillance for FMD in Thrace.

We have designed and implemented a Wildlife Surveillance workshop.

We are designing joint trainings on outbreak investigation and management.



Component 1.3: THRACE



Filter Country IN ('Greece', 'Bulgaria', 'Turkey')

Country 1-100 of 631

Find

3 distinct values

- ☒ Bulgaria 66
- ☒ Greece 166
- ☒ Turkey 399

Entry ID	Date of Inspection	Entered by	Country	Region	District	Village	Farm ID	Abattoir ID
	2016-01-11	Yordan Panayotov	Bulgaria		Tsarevo	Kosti (Bulgaria)		
	2016-01-19	Nikola Spirov	Bulgaria		Topolovgrad	Prisadets		
	2016-01-11	Yordan Panayotov	Bulgaria		Tsarevo	Sinemorets		
	2016-01-19	Nikola Spirov	Bulgaria		Topolovgrad	Filipovo (Topolovgrad)		
	2016-01-12	Yordan Panayotov	Bulgaria		Tsarevo	Brodilovo		
	2016-01-24	Yordan Panayotov	Bulgaria		Tsarevo	Brodilovo		
	2016-01-26	Yordan Panayotov	Bulgaria		Tsarevo	Sinemorets		
	2016-01-25	Nikola Spirov	Bulgaria		Topolovgrad	Filipovo (Topolovgrad)		
	2016-01-25	Yordan Panayotov	Bulgaria		Tsarevo	Kosti (Bulgaria)		
	2016-01-25	Nikola Spirov	Bulgaria		Topolovgrad	Prisadets		
	2016-01-18	Nikola Spirov	Bulgaria		Topolovgrad	Radovets		
	2016-01-20	Nikola Spirov	Bulgaria		Svilengrad	Shitit		
	2016-01-20	Nikola Spirov	Bulgaria		Svilengrad	Matochina		
	2016-01-21	Nikola Spirov	Bulgaria		Svilengrad	Kapitan Andreevo		

Web-base Database
online

Multiple active surveillance activities
Thrace region (GR/BG/TR)



Tripartite Meeting
Bulgaria



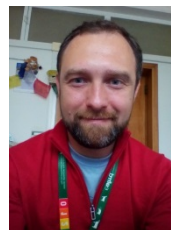
Wildlife Surveillance Workshop
Bulgaria



Component 1.4: Balkans

Component managers:

Artem Skrypnyk, Anna Zdrakova, Miriam Casey, Natasha Antovska



Improving the Emergency Preparedness in the Balkan region

Working with both European Union and Non-EU countries

We have listened to the needs of the countries through regular contact and on the spot visits.

We have encouraged regional cooperation through facilitating management meetings and workshops.

We have designed and conducted a laboratory simulation exercise.

We have mentored them in how to design, conduct and evaluate simulation exercises.





Component 1.4: Balkans

Laboratory Simulation Exercise Italy



Balkan “Road Trip”

Bosnia and Herzegovina
Montenegro



Workshop on Simulation Exercises

Bulgaria

CP self assessment Tool On-line





Component 1.7 Proficiency Testing Scheme

Component manager

Kees van Maanen



Harmonized Proficiency Testing Service for non-EU EuFMD members and European neighborhood countries

Supporting WRLFMD to realize increased participation and better national alignment of these NRLs to the EuFMD/EU standard for FMD diagnostic NRL performance

We have contracted the Pirbright Institute to carry out this proficiency testing through a letter of agreement.

We have participated in the advisory committee and the PT is now focused on 1) the laboratory's response to an outbreak within the country and 2) laboratory methods and analysis of results for quality assurance purpose.

We have encouraged and reminded NRLs of countries to participate in this PTS.

We have participated in the annual EU Ref.Lab. meetings simulation exercises.



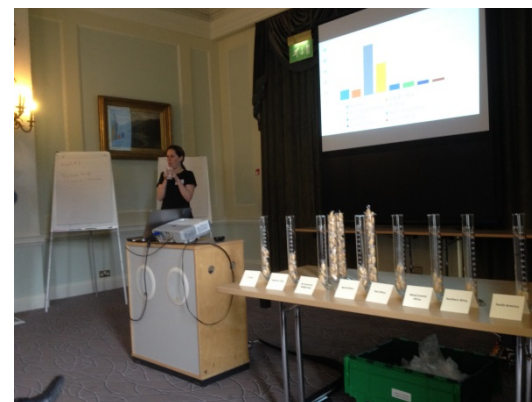
Component 1.7 Proficiency Testing Scheme

Countries specified in Letter of Agreement

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

EuFMD member states which are not in the EU:	European neighbourhood states:
Serbia	Kosovo
Albania	Montenegro
F.Y.R. of Macedonia	Armenia
Bosnia	Azerbaijan
Turkey	Ukraine
Georgia	Belarus
Switzerland	Moldova
Norway	Iran
Israel	Egypt
	Lebanon
	Libya
	Morocco
	Tunisia
	Algeria
	Iraq
Total: 9	Total: 15

EU reference laboratories meeting 2016, Ascot, UK





Component 1.1: Training for Member States

Component managers:

*Magdalena Gajdzinska, Malin Grant and
Maria de la Puente*



***Increase European expertise in FMD crisis management and
Improved quality of national FMD preparedness training programmes***

We have assessed the training needs of our Members.

We have offered a training menu.

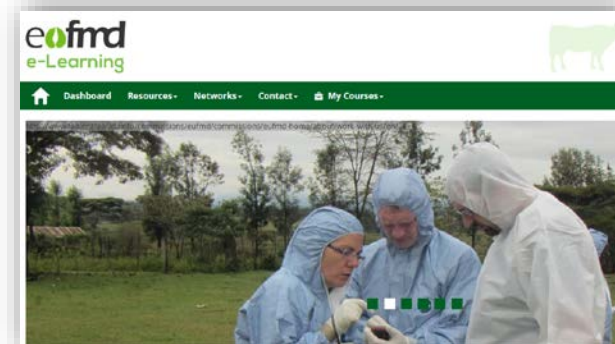
We have designed and conducted several new workshops.

We have run online courses in different languages.

We have supported national trainings.



jobAid
eofmd





Component 1.1: Training for Member States

RTT and workshops:

We have seen FMD, we have counted on the best experts, we have encouraged the discussions during our workshops,...



Online courses:

We have facilitated interesting discussions in the forum, we have used translation to deliver the course in Estonian, Serbian,...



Trainers :

Milan Pandurovic
Maria-Teresa Scicluna
Dejan Krnjalic

Job aids:

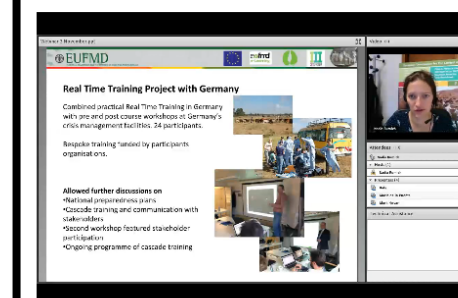
We have created
material useful for
delivering training,
increase preparedness,...



Contact with Training focal points:

We have kept in continuous contact with the TFP,...

Webinar 3rd November 2016 Recording





Component 1.2: Improved Contingency Planning

Component managers:

Katie Hickey, Marius Masiulis and Mark Hovari

Active support from: Hendrik Camphor



Improved Contingency Planning by Members and at European Level

We have assembled a Database of Experts.

We have run three Networks with webinars and forums.

We have supported the use of decision support tools, such as the impact calculator.

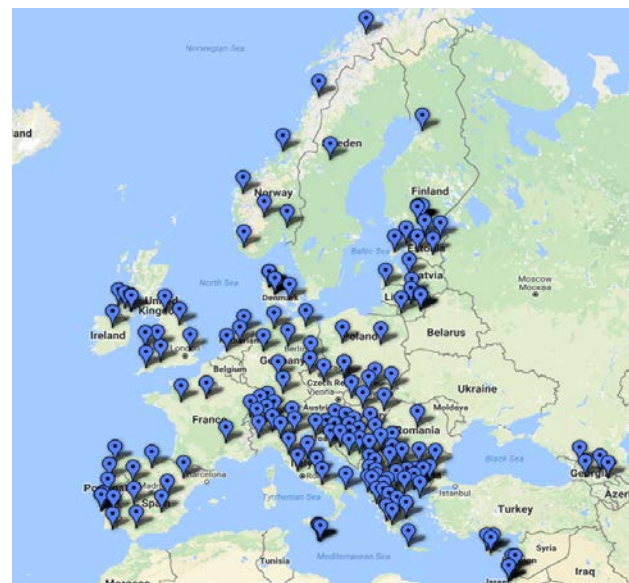
We will finish developing guides to support Simulation Exercises and Training (GET prepared) and Emergency Vaccination.



Component 1.2: Improved Contingency Planning



Database of Experts Online



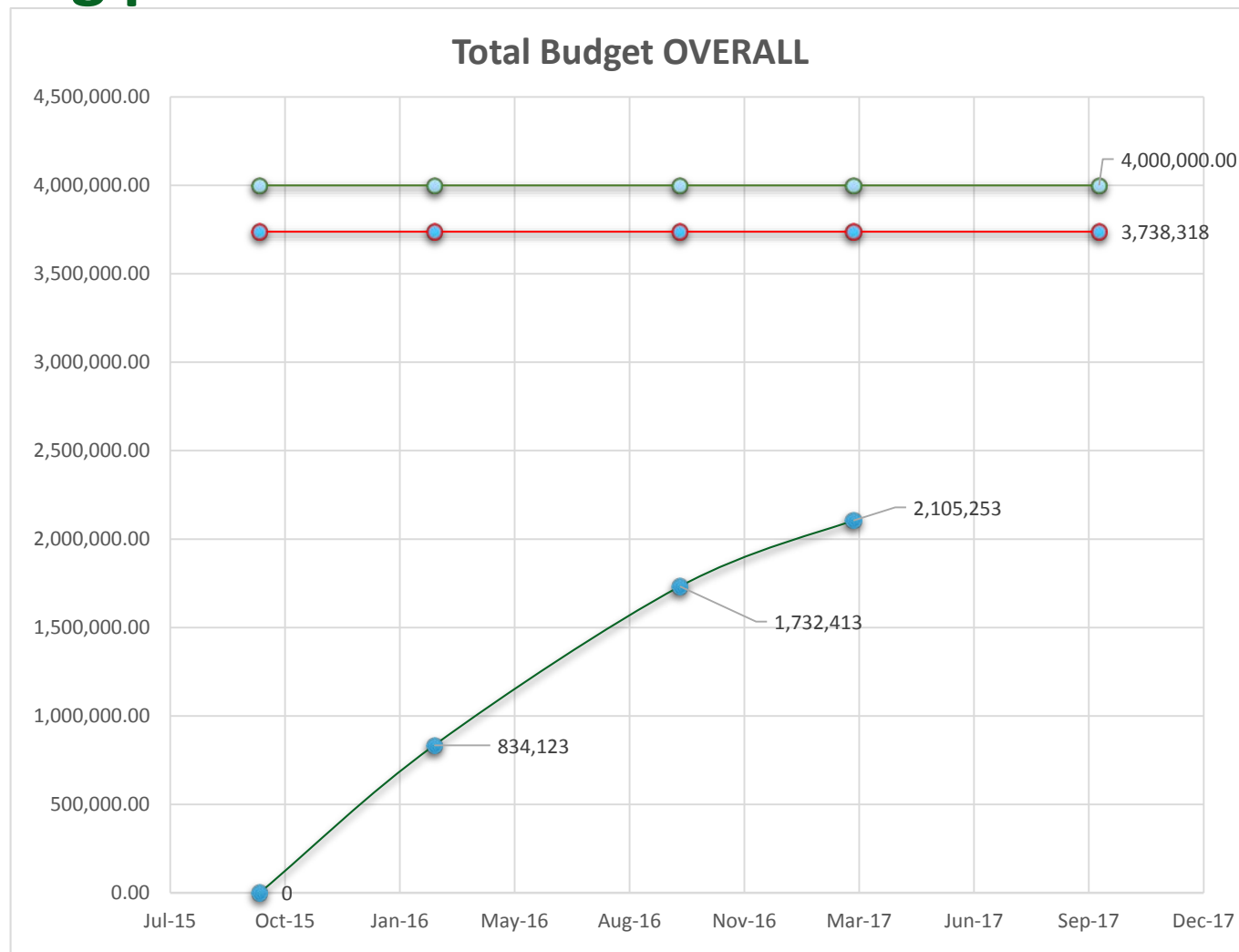
GET Prepared Guide





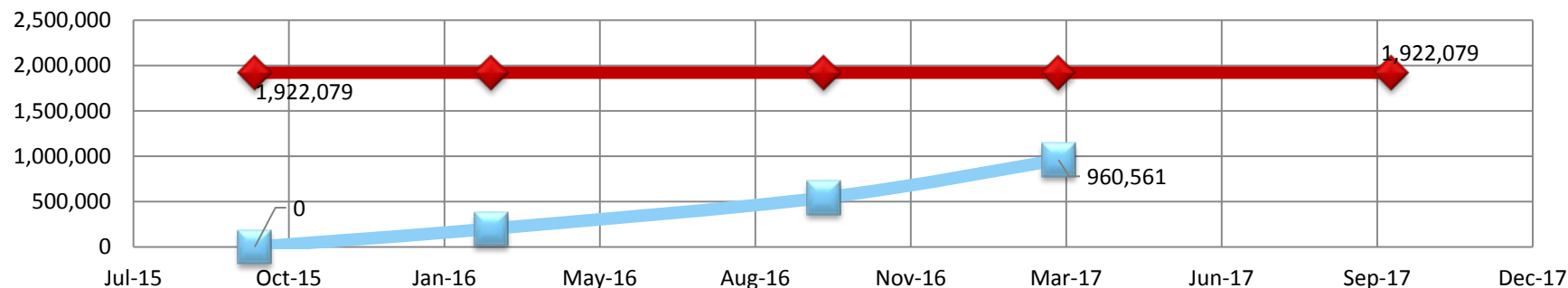
Budget mapping procedures

EURO € 2015-2017			
ACTIVITY			
Account NB. Description	III PILLARS Budget 2015-2017	III PILLARS 18 mths Exp.	%
5570 CONSULTANT (Technical)	847,775	721,559	85%
5900 TRAVEL	728,195	419,734	58%
5650 CONTRACTS	843,863	481,192	57%
5920 TRAINING	292,447	82,183	28%
6000 PROCUREMENT EQUIPMENT	302,947	114,356	38%
6300 GENERAL OPERATING EXPENSES	198,576	41,212	21%
TOTALS for III Pillars Activities 2015-2017	3,213,803	1,860,237	58%
HQ Staff and Support Cost			
Account NB. Description	III PILLARS Budget 2015-2017	III PILLARS 18 mths Exp.	%
5300 SALARIES PROFESSIONAL	199,553		0%
5570 CONSULTANT (Operational)	283,354	213,810	75%
(ESTIMATED) - 6150/6160 REPORT PROJECT EVALUATION COSTS	41,608	31,206	75%
TOTALS for HQ Staff and Support Cost	524,515	245,016	47%
OVERALL III Pillars			
OVERALL - III Pillars TOTAL	3,738,318	2,105,253	56%
(ESTIMATED) Project Servicing Charge 7%	261,683	€ 195,621.00	75%
GRAND TOTAL	4,000,000	€ 2,300,874.04	58%

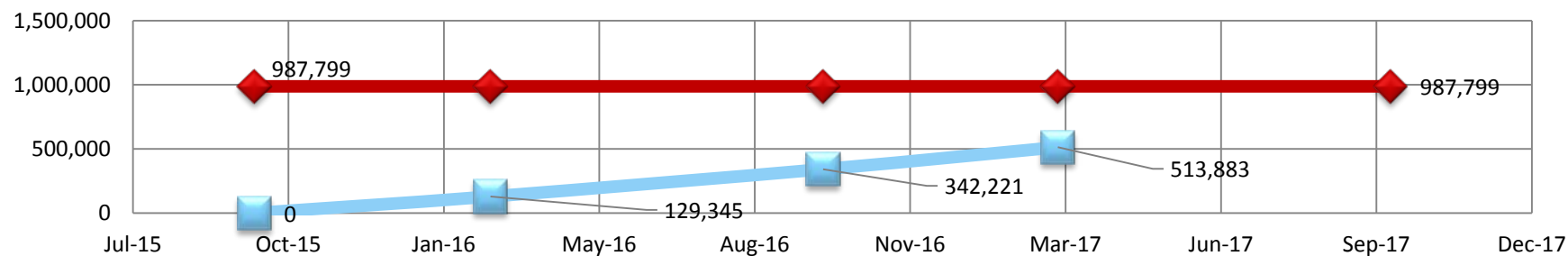




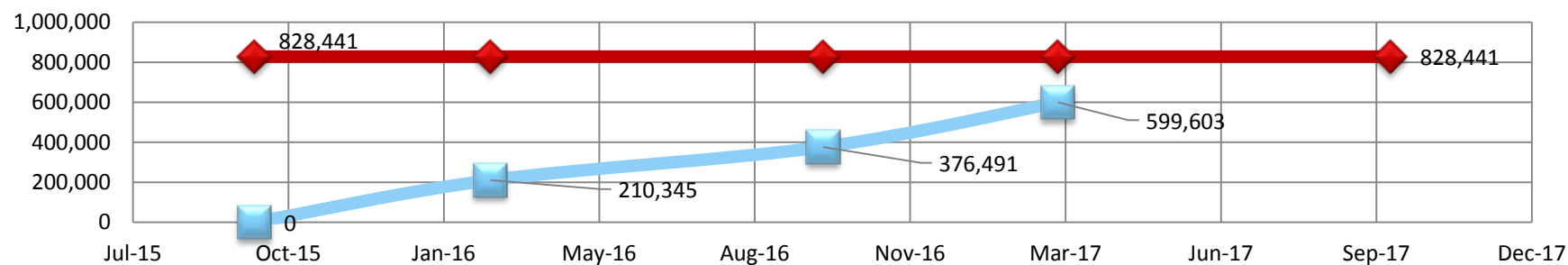
OVERALL EXPENDITURE PILLAR I



OVERALL EXPENDITURE PILLAR II



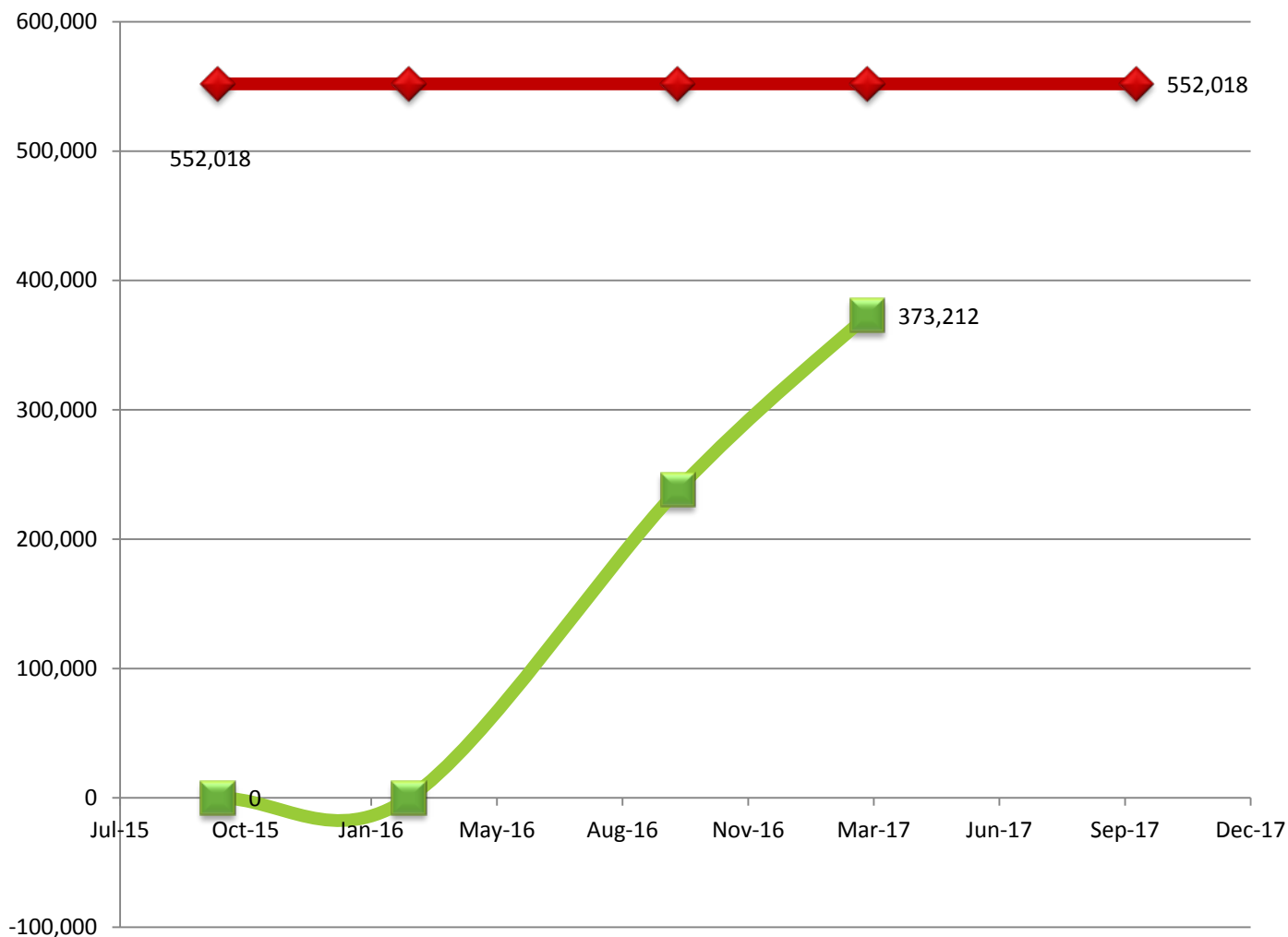
OVERALL EXPENDITURE PILLAR III





Component 1.1 (Oct 2015 / Sept 2017)

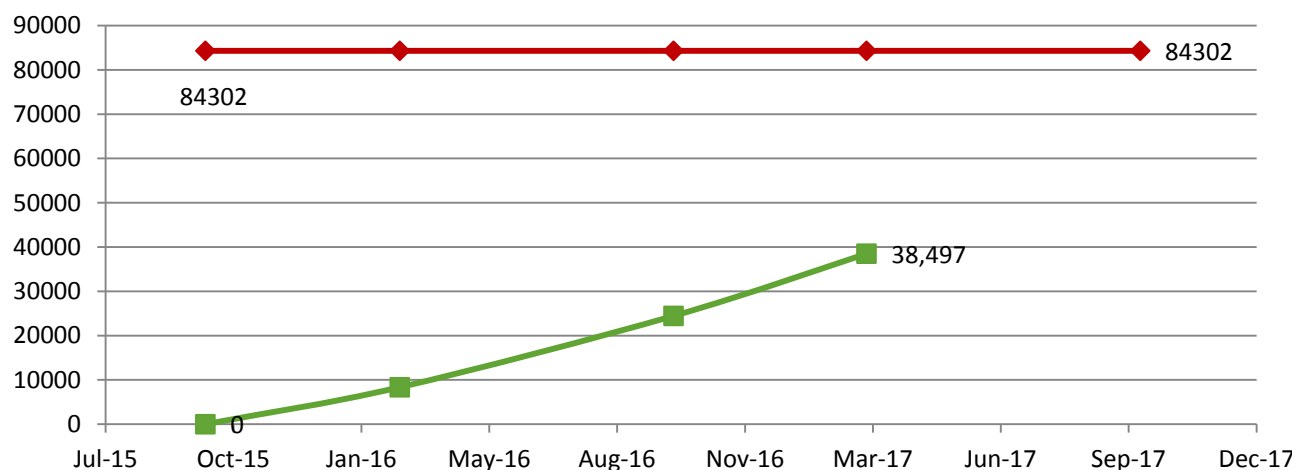
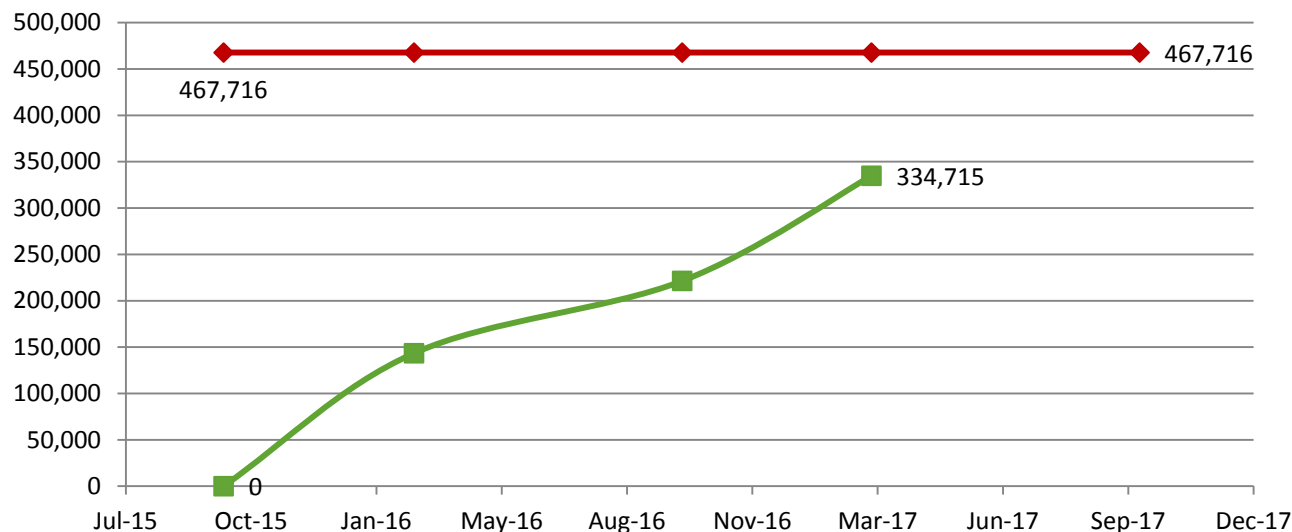
ACTIVITY			
Account NB. Description	Budget Comp. 1.1.	18 mths Exp. Comp. 1.1	%
5570 CONSULTANT (Technical)	142,000	113,097	80%
5900 TRAVEL	180,600	155,092	86%
5650 CONTRACTS	40,000	11,369	28%
5920 TRAINING	70,500	21,736	31%
6000 PROCUREMENT EQUIPMENT	7,616	8,642	113%
6300 GENERAL OPERATING EXPENSES	27,000	24,779	92%
TOTALS for III Pillars Activities 2015-2017	467,716	334,715	72%
HQ Staff and Support Cost			
Account NB. Description	Budget Comp. 1.1.	18 mths Exp. Comp. 1.1	%
5300 SALARIES PROFESSIONAL	29,865	0	0%
5570 CONSULTANT (Operational)	50,188	38,497	77%
(ESTIMATED) - 6150/6160 REPORT PROJECT EVALUATION COSTS	4,249		0%
TOTALS for HQ Staff and Support Cost	84,302	38,497	46%
OVERALL III Pillars			
OVERALL - III Pillars TOTAL	552,018	373,212	68%





Component 1.1 (Oct 2015 / Sept 2017)

ACTIVITY			
Account NB. Description	Budget Comp. 1.1.	18 mths Exp. Comp. 1.1	%
5570 CONSULTANT (Technical)	142,000	113,097	80%
5900 TRAVEL	180,600	155,092	86%
5650 CONTRACTS	40,000	11,369	28%
5920 TRAINING	70,500	21,736	31%
6000 PROCUREMENT EQUIPMENT	7,616	8,642	113%
6300 GENERAL OPERATING EXPENSES	27,000	24,779	92%
TOTALS for III Pillars Activities 2015-2017	467,716	334,715	72%
HQ Staff and Support Cost			
Account NB. Description	Budget Comp. 1.1.	18 mths Exp. Comp. 1.1	%
5300 SALARIES PROFESSIONAL	29,865	0	0%
5570 CONSULTANT (Operational)	50,188	38,497	77%
(ESTIMATED) - 6150/6160 REPORT PROJECT EVALUATION COSTS	4,249	0	0%
TOTALS for HQ Staff and Support Cost	84,302	38,497	46%
OVERALL III Pillars			
OVERALL - III Pillars TOTAL	552,018	373,212	68%





Budget and objectives mapping procedures

Component 1.1 Training for Member States

Component Supervisor: Mark Hovari; Component Manager Maria de la Puente; Executive Committee M. Blake

Indicators

Activities	Indicators	Baseline Sept. 2015	Target 2 years	Unit of measure	Current Status
1.1.1	Knowledge Bank created and in use by MS	0	500	Participants from EuFMD MS registered and access training materials	256
1.1.2	Implement >90 % of the demand driven programme	0	Over 330 TC used	Training Credits (TC) used	275

Progress

Infrastructures	E-learning platform: 4000 users Webinars: average of one a week. Knowledge Bank is a searchable and categorized library of training resources, references, tools and job aids related to FMD. Open access courses: "Introduction to FMD"; "Introduction to the PCP Job aids: Presentations; fact sheets; videos; template scenarios; template timeline; role game; exercises
Cascade training	Pilot of national "cascade" training course, Italy. The first phase of the FMD cascade training course was delivered by IZSLER with support from EuFMD. The second phase has already started.
Training credits system	275 have been spent. 39 are allocated in different training courses. 56 have not been allocated.
Delivery of training courses	Real Time Training courses in Kenya were held in June 2016, Nov. 2016 Feb 2017. Online FMD Emergency Preparation Courses (FEPC) delivered to over 1000 veterinarians from MS on seven courses to date. National tailor made FMD Emergency Preparation Courses were held for Spain; France; United Kingdom; Estonia; Serbia
New training courses	Managing a Crisis (Sept 2016); Simulation Exercises (Feb 2017); Putting vaccination into practice (March 2017)
New online courses planned	FMD Emergency Preparation Course for Cyprus; Belgium; Croatia; France; Spain. Laboratory Training Course: 15-26 May 2017; Risk Based FMD Surveillance June 2017
Main issues	To date 56 credits have not been allocated. The countries with the highest number of unallocated or unspent training credits were: Cyprus, Switzerland, Poland, Bosnia and Herzegovina, Luxembourg and FYRO Macedonia. Options to improve engagement and participation from countries? New system to manage unallocated credits? Why in some particular cases the completion rate was lower than average?
Priorities for the next six months	Promoting the Knowledge Bank and EuFMD job aids that are under development; Cascade training. Focus will be to delivery of the remaining courses planned in the framework of the training period 2015-2017: at least three Online FMD Emergency Preparation Courses, including one in Spanish and one in French; and an online Risk Based Surveillance course to be organized in May/June 2017.

Total Budget Allowance	Expenses up to March 2017	% project completion	Actual available (20 months activities 2016 - 2017)
552,018	373,213	68 %	174,556

- Report every 6 months

- The indicators for the objectives/milestones

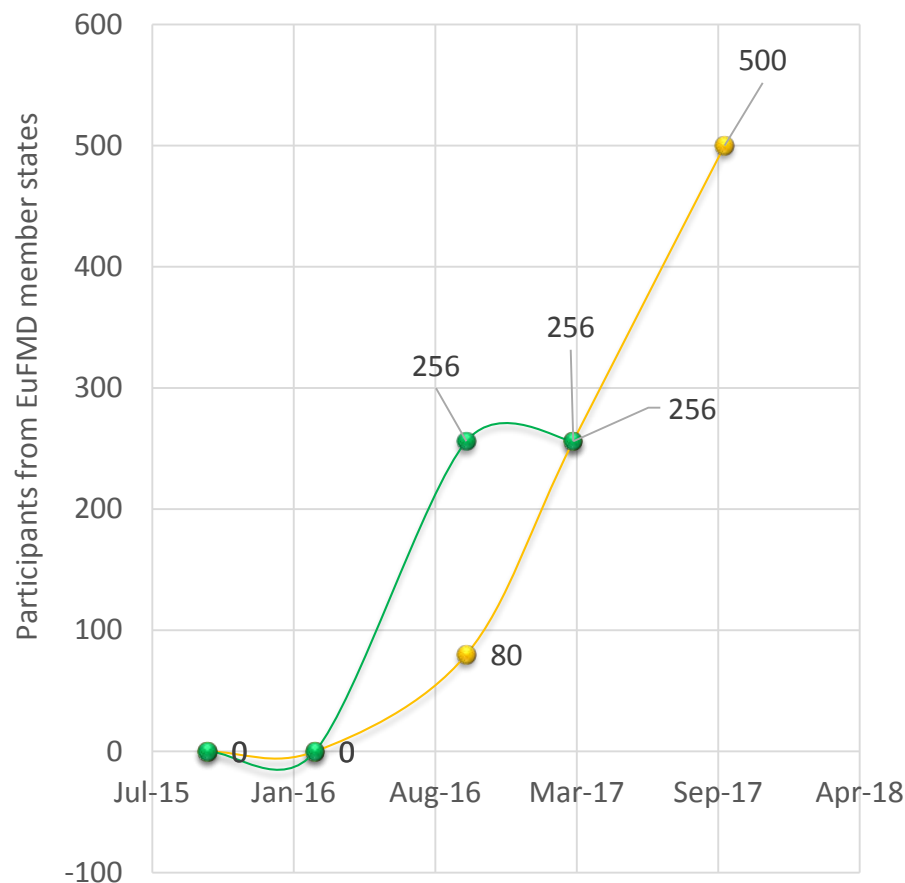
- The progress reached by component

- The economic information per component

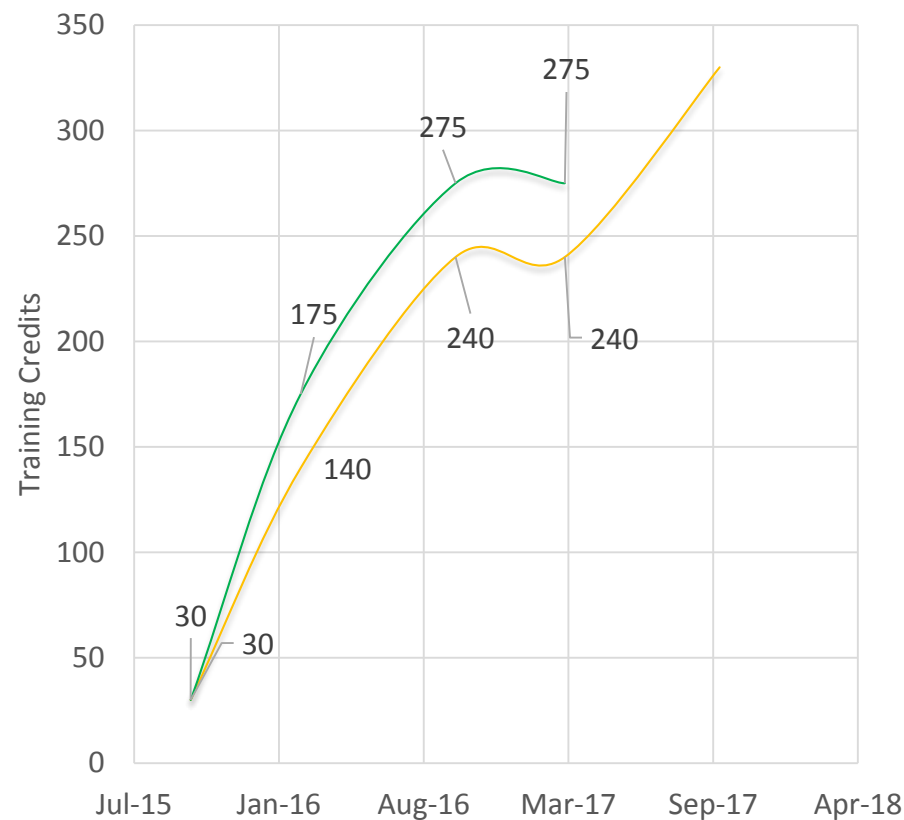


Milestones mapping at output level

1.1.1



1.1.2

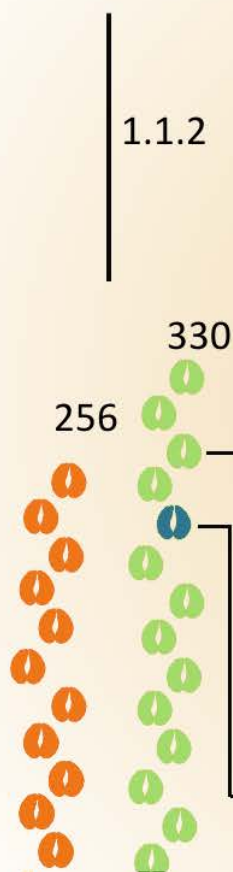




Participants from EuFMD member states



Training Credits



- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL

1.1 Pillar I

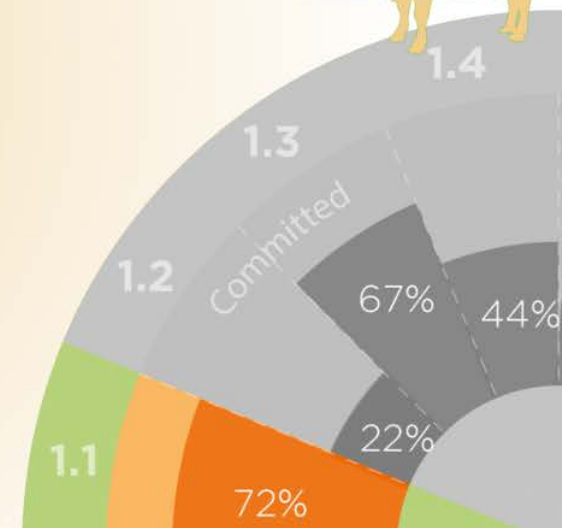
€ 567,716.00



€ 334,716.00



€133,000.00





Food and Agriculture
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United Nations



europa
commission for the
control of foot-and-mouth disease

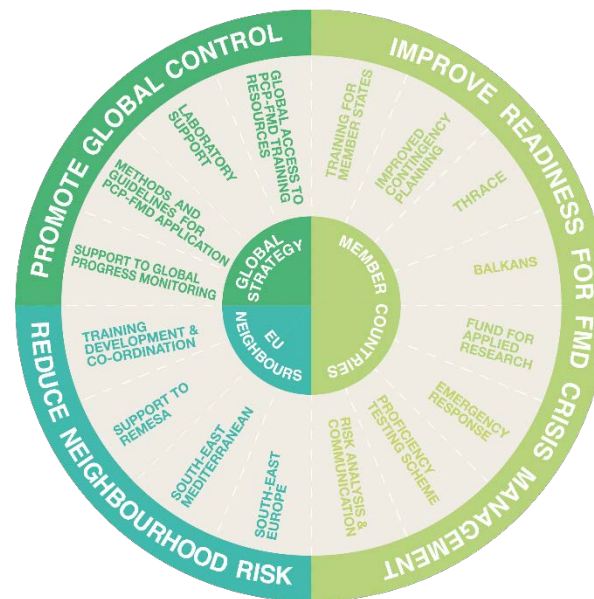


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42nd General Session of the EuFMD

Thank you for your attention!





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European Commission for the
control of foot-and-mouth disease

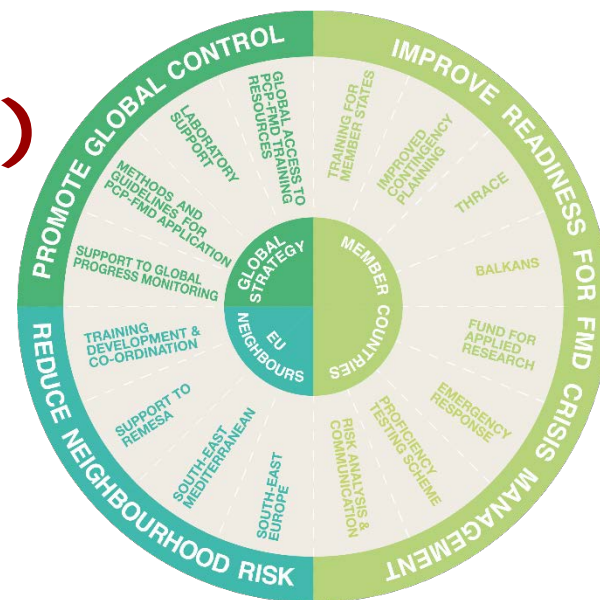


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42nd General Session of the EuFMD

PROPOSED UPDATING TO THE STRATEGIC PLAN AND WORK PROGRAMME FOR THE BIENNIUM (to the 43rd Session in 2019)





Strategic goal 1 – Improve readiness for FMD crisis management by Members

General changes

In 2015-17, more emphasis was placed upon national ownership of actions under each component.

In 2017-19, greater involvement of livestock industry actors and pan-European livestock sector representatives in training will be encouraged, towards a better public/private sector interactions on contingency planning issues.

The development of the knowledge bank will be continued, to provide national training focal points for more training aids/assistance to them to engage /train their national vet personnel.

The newly developed “Guide to Exercises and Training for emergency preparedness” (GET Prepared Guide) will be rolled out to assist MS to plan their exercises on a progressive basis, under multiple components.



Component 1.1: Training for Member States

RTT and workshops:

We have seen FMD, we have counted on the best experts, we have encouraged the discussions during our workshops,...



Online courses:

We have facilitated interesting discussions in the forum, we have used translation to deliver the course in Estonian, Serbian,...



Trainers:
Milan Pandurovic
Maria-Teresa Scicluna
Dejan Krnjalic

Job aids:

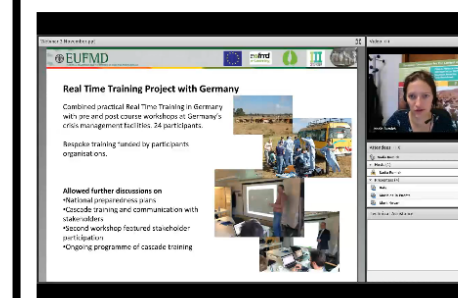
We have created material useful for delivering training, increase preparedness,...



Contact with Training focal points:

We have kept in continuous contact with the TFP,...

Webinar 3rd November 2016 Recording





Training credits system: 370 credits to spend

To date:

- ❖ 275 have been spent
- ❖ 39 are allocated in different training courses, to be spent during the rest of the training period
- ❖ 56 have not been allocated

Can we make a better use of the credits that are not spent or allocated by the end of the training period?



Sub-regional courses



Sub-regional approach: face-to-face courses

To address topics that can be particularly interesting for a sub-region:

Wildlife surveillance?

Modelling?

Simulation exercises?

To increase ownership of the training delivered:

Involvement of the Training Focal points in the sub-region.

Involvement of the Member of the EXCOM:
Coordination with the Sub-region.

To make training more cost- effective:

MS to provide:

Transport for participants?
Training venue? Accommodation?

EuFMD to provide:

FMD experts? Pre-course
e-learning?

One possible example:

Wildlife Surveillance workshop





1.1 Develop European expertise in FMD crisis management and assist national FMD preparedness training programmes.

Update:

This component will continue to include all training activities under the training credits system.

The inclusion of training credits as incentives for 'sub-regional courses where the trainers are provided by EuFMD but participants supported by the member states will be evaluated as a cost-effective means to maintain face to face courses for topics where European sub regions also need to work closely together.

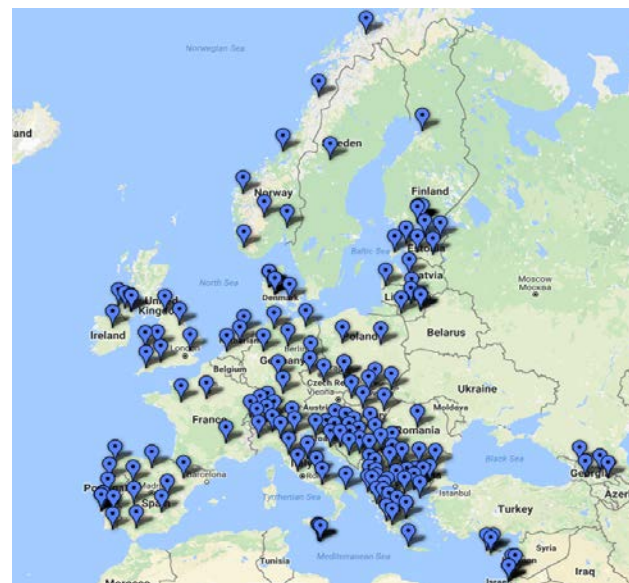
This Component will continue to include development of the FMD training resources infrastructure which provides the knowledge base to MS for cascade training, and include development of applicable knowledge products (job aids)



Component 1.2: Improved Contingency Planning



Database of Experts Online



GET Prepared Guide





1.2 Develop European expertise in FMD crisis management and assist national FMD preparedness training programmes.

In 2015-17, following strong demand, this component continued the FMD modelling network, contingency planning (CP) knowledge bank and CP/simulation exercise manager networks. This component included a Vaccine Banks/Vaccination issues Working Group or Network, and work to develop common resources strategy for sharing human resources as well as critical capacity (vaccines, diagnostic bank).

In 2017-19 this component should continue the above but ensure some development of support tools for MS also, e.g. the FMD impacts calculator.

Additional funding will be required beyond the Phase IV programme for a common joint project (e.g. European livestock movements modelling project) and a more specific support project (e.g. regional project for MS wishing to establish modelling for decision making, could be a group of countries at similar stage of capacity).



1.2 Develop European expertise in FMD crisis management and assist national FMD preparedness training programmes.

Cross Border Disease Modelling

CROBDIMO Initiative

Establishment of a central and eastern European animal disease spread model



Decision Support Tools for Member States

Progressive Pathway for Modelling

Aiding MS in to use and build models

AADIS

Australian Animal Disease Spread model

Used in EuFMD Modelling workshops in 2014/2016

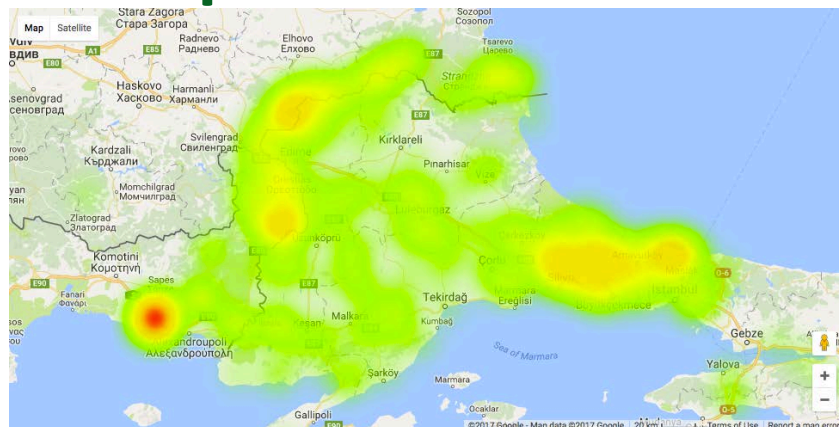
A hybrid modeling approach to simulating foot-and-mouth disease outbreaks in Australian livestock

Richard A. Bradhurst^{1*}, Sharon E. Roche², Iain J. East², Paul Kwan¹ and
M. Graeme Garner²

¹Discipline of Computer Science, School of Science and Technology, University of New England, Armidale, NSW, Australia,
²Epidemiology and One Health Program, Animal Health Policy Branch, Department of Agriculture, Canberra, ACT, Australia



Component 1.3: THRACE



Filter Country IN ('Greece', 'Bulgaria', 'Turkey')

Country 1-100 of 631

Find

3 distinct values

- ☒ Bulgaria 66
- ☒ Greece 166
- ☒ Turkey 399

Entry ID	Date of Inspection	Entered by	Country	Region	District	Village	Farm ID	Abattoir ID
	2016-01-11	Yordan Panayotov	Bulgaria		Tsarevo	Kosti (Bulgaria)		
	2016-01-19	Nikola Spirov	Bulgaria		Topolovgrad	Prisadets		
	2016-01-11	Yordan Panayotov	Bulgaria		Tsarevo	Sinemorets		
	2016-01-19	Nikola Spirov	Bulgaria		Topolovgrad	Filipovo (Topolovgrad)		
	2016-01-12	Yordan Panayotov	Bulgaria		Tsarevo	Brodilovo		
	2016-01-24	Yordan Panayotov	Bulgaria		Tsarevo	Brodilovo		
	2016-01-26	Yordan Panayotov	Bulgaria		Tsarevo	Sinemorets		
	2016-01-25	Nikola Spirov	Bulgaria		Topolovgrad	Filipovo (Topolovgrad)		
	2016-01-25	Yordan Panayotov	Bulgaria		Tsarevo	Kosti (Bulgaria)		
	2016-01-25	Nikola Spirov	Bulgaria		Topolovgrad	Prisadets		
	2016-01-18	Nikola Spirov	Bulgaria		Topolovgrad	Radovets		
	2016-01-20	Nikola Spirov	Bulgaria		Svilengrad	Shitit		
	2016-01-20	Nikola Spirov	Bulgaria		Svilengrad	Matochina		
	2016-01-21	Nikola Spirov	Bulgaria		Svilengrad	Kapitan Andreevo		

Web-base Database
online

Multiple active surveillance activities
Thrace region (GR/BG/TR)



Tripartite Meeting
Bulgaria



Wildlife Surveillance Workshop
Bulgaria



1.3 Thrace region: programme for early warning surveillance in Greece/Bulgaria/Turkey.

This component is of proven value and support is demanded from the three countries for continuation in 2017-19.

The extent of support to national activities in surveillance will be dependent on DG-SANTE decisions relating to responsibility of the member states, and the actions funded for management of infection after establishment in the MS (e.g. Lumpy Skin Disease).

In 2017-19, the programme expects to continue

- collation and analysis of existing surveillance data,
- development of risk-based surveillance methods,
- to assess and assist improvement of passive surveillance,
- the tripartite coordination of activities,
- integration of decision support tools and risk analysis into policy evaluation and development,
- and management of support to surveillance activities.



Component 1.4: Balkans

Laboratory Simulation Exercise Italy



Balkan “Road Trip” Bosnia and Herzegovina Montenegro



Vector transmissible animal diseases workshop Bulgaria



Workshop on Simulation Exercises Bulgaria

CP self assessment Tool On-line





1.4 Improved emergency management capacity for FMD in the Balkan and Moldova/Ukraine regions

This component will continue on basis of the preferences of the Western Balkan countries for support towards self-governance and ownership of preparedness planning through regular meetings and joint exercises.

In 2017-19 this component will include UKRAINE as an FMD free country that has similarities to the Western Balkans in its proximity to FMD risk and need for potential emergency support.

Following progress in laboratory exercises, the component will continue to give attention to the issues affecting national reference laboratory capacity for FMD confirmation and surveillance.



1.5 Research activities relevant to resolve policy issues

This will continue as support for research projects which have been endorsed by the Standing Technical Committee of the EuFMD as being of benefit to EuFMD objectives; activities to translate research into tools, actions or activities which are of benefit to EuFMD activities; and actions to integrate research outcomes with policy.

In 2017-19, this component will also specifically support the workplan of the Special Committee on Biorisk Management, both in terms of a support for priority technical studies, and meetings required to develop revised Standards for endorsement in the 2019 General Session .



1.7 Proficiency Testing Service. (For non-EU countries in the European neighbourhood)

This will continue as before, through contract with either The Pirbright Institute (as the EU-RL for FMD) or the successor to the EU-RL if this is selected by DG-SANTE, and provided this activity does not migrate to the workplan of the EU-RL.

The outcome expected remains that non-EU countries, which are members of EuFMD or neighbours to EuFMD members, are able to participate without cost to them in the annual EU–RL proficiency test scheme.



Component 1.8: Risk Analysis and Communication

Guest Editors' comments
It is a pleasure to write the editorial comments for the first EuFMD report of 2016. At this time of year, we often
wish you all the best for a quiet 2016. In this context, we all certainly remember 2015 as a year of

FMD experts' comments section

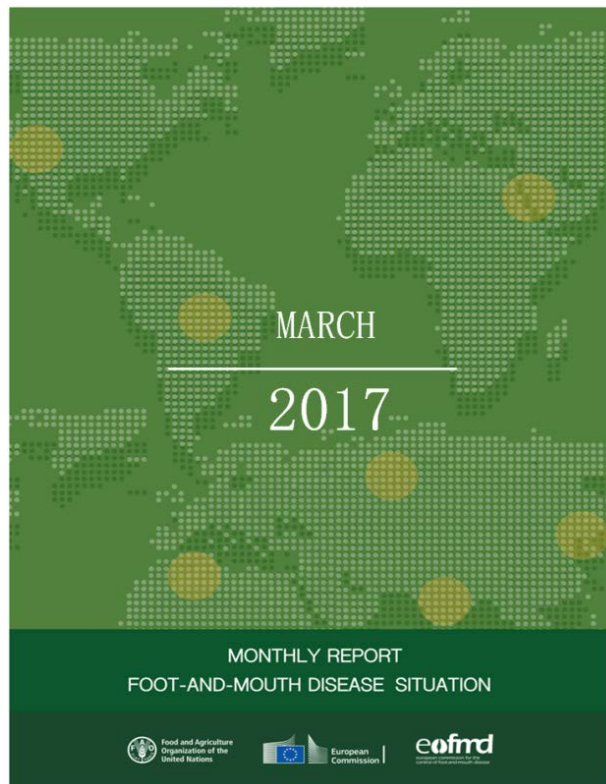
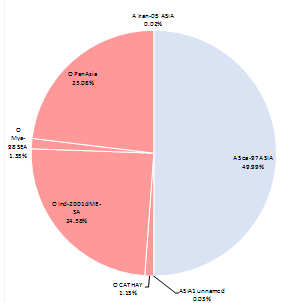
- (iii) The distribution of serotype SAT 2 (hapotype VI) has continued to expand in West Africa (Mauritania) and the Middle East (Oman) during 2014 and 2015, respectively. This lineage previously caused extensive FMD outbreaks in North Africa in 2012, representing the first cases due to this serotype in Egypt for over 50 years. At the same time sequence data was used to show that separate introductions of this virus lineage were experienced in Libya.
- (iv) FMD viruses (within the O/SEA/Mya-98 lineage) have been responsible for exotic field outbreaks in South Korea. Since 2010, sequence data indicates that there have been frequent introductions of this FMD virus lineage into the country providing an indication of the burden (infectious pressure) that exists due to ongoing FMD outbreaks in neighbouring countries in the East and Southeast Asia regions. In this context, it should be remembered that the FMD pandemic due to the O/MEA/UK/2001 lineage was characterized by outbreaks in East Asia (China, Korea and Japan) before those reported in South Africa and the UK (and Europe).



These changing patterns highlight the important work that is undertaken by the OIE/FAO FMD Laboratory Network. Meeting (picture above shows delegates at the meeting held at CODA-CERVA in Brussels in November 2015).

Wish you all the best for a quieter 2016
Dian King (Portugal, February 2016)

Serotype	Strain	Distribution within pool
A	A Iran-05 ASIA	0.02%
	A Sea-97 ASIA	49.95%
ASIA1	ASIA1 unnamed	0.03%
O	O CATHAY	1.15%
	O Ind-2001d ME-SA	24.36%
	O Mya-98 SEA	1.35%
	O PanAsia	23.06%



Monthly update of
Global FMD situation

V. REFERENCES - Superscripts

1. World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD), www.wrlfmd.org
2. WAHID Interface - OIE World Animal Health Information Database
<http://web.oie.int/wahis/public.php?page=home>
3. Regional Reference Laboratory for FMD (ARRIAH, Russia) - (Dr. Svetlana Fomina)
4. Project Directorate on Foot and Mouth Disease (PD-FMD), Indian Council of Agricultural Research, Mukteswar, India (Dr B. B. Dash) FAO
5. Progressive Control of Foot and Mouth Disease in Pakistan, - (Dr. Manzoor Hussain, National Project Director and Dr. Muhammad Ajmal, Project Coordinator)

Constant provision of exclusive
information from
**10 Regional and National
Reference Laboratories**

PRAGMATIST

Estimated prevalence of viral serotypes
and viral lineages per Pool and Country

**Result of livestock pop X FMD incidence X
proportion of circulating FMDV lineages**

Melissa McLaws and Maria Teresa Scicluna



1.8 Activities to improve risk communication.

This component contributes a regular (in 2013-17, monthly) Global Report on FMD that is widely utilised by MS and by those communicating epidemic risks.

The 2017-19 plan will continue to develop the system for improved translation of risk information into guidance, with the aim of implementing the PRAGMATIST tools into use as a modality to provide priorities for improving surveillance targeting and vaccine bank antigen selection.

The component will implement also a pilot system for early warning based on meat price differentials since this factor is seen as a key driver for movements across borders in neighbourhood countries and more distant source regions.



Strategic goal 2: Reduce risk to Members from the European neighbourhood (progressive control in neighbouring regions)

In 2017-19 as countries implement their strategic plans, a common supportive measure across the region, building on experience in Turkey, Georgia, Egypt, will be

- to provide training in regional languages on
 - 1) Common needs in Epidemiology and Monitoring at central Level
 - 2) Implementation of PCP related activities for monitoring and evaluating FMD control programmes, and
 - 3) Support to national trainers to roll out national level training using the three common languages in the neighbourhood: Russian, Arabic, Turkish.

Given the epidemic situation in each of the three sub-regions,

- greater emphasis will be placed upon activities with **Libya, Egypt and Jordan**



Component 2.1: South East Europe



**TransCaucasus
Regional
Simulation
Exercise
Georgia**



**Statement of
Intentions
OIE General Session**



**4 weeks Training in
Practical Epidemiology
Istanbul, Turkey**



**FMD risk reduction in the
Western Anatolian Region
of Turkey
Cesme, Turkey**



**4 Workshops on FMD Control
and surveillance in the West
Anatolia FMD Control Zone
Ankara, Turkey**



2.1 Turkey and neighbourhood

- Revive the West Eurasia laboratory and epidemiology networking, to better support the Roadmap countries as well as provide essential risk information,
- gain better regularity of information from Iran, Afghanistan and Pakistan, for risk assessment;

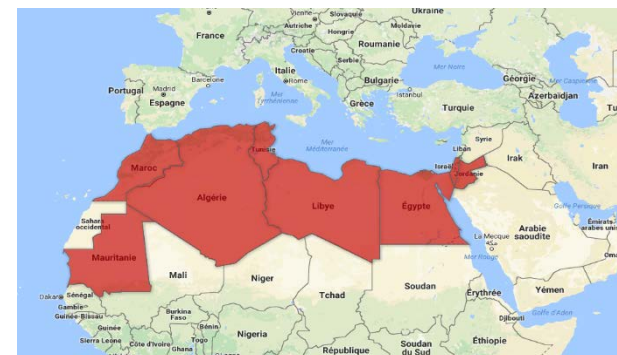
In 2017-19 activities will include support to the TransCaucasus countries (TCC) to continue to share information on surveillance and control programmes, as per the Statement of Intentions agreed between the 6 parties in Paris in May 2016.



Component 2.3

**Providing technical support to REMESA
actions**

**Reducing the risk of FMD in the EuFMD
neighborhood**





Component 2.2 South East Mediterranean

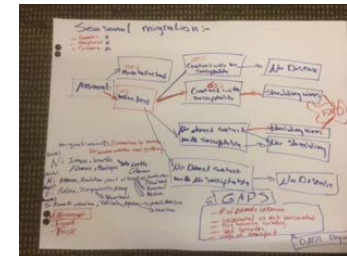
Real Time Training on FMD outbreak investigation Egypt (CTC1) January 2017



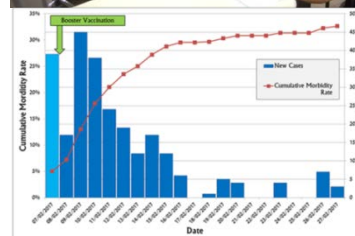
Outbreak investigation Nablus, Palestine, november 2015



Workshops 2016 Jordan and Lebanon



Joint-Israeli-Palestinian workshop Bet Dagan 2017 and FMDV/O/EA-3 outbreaks in the Gaza strip and Israel



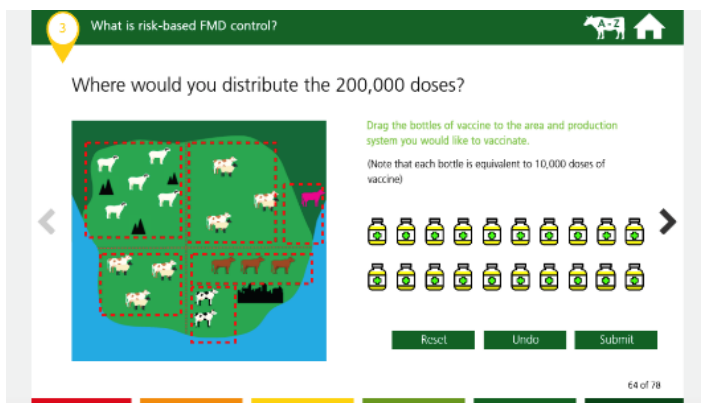


2.2 and 2.3 Israel , neighbours and support to REMESA actions

- Place greater emphasis on national activities to promote control in Libya, Egypt, as high risk countries for the region;
- Provide regional, tutored online training courses in Arabic and French, including online training for Iraq, Syria, as well as REMESA countries;
- Support the francophone FMD network to improve risk communication, surveillance and preparedness, in both francophone parts of REMESA and the neighbouring regions in West /Central Africa.



Component 2.4: Pillar II training development and co-ordination



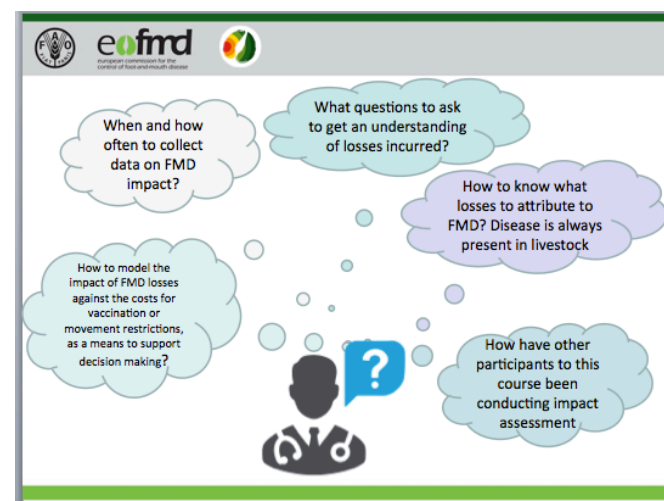
Open access
courses

Introduction to
the
Progressive
Control
Pathway

e-learning in
regional
languages

Training needs
assessment

In depth online
tutored courses





2.4 Training Component

This component is regional (serving the Pillar 2 subregions)

- Following development of a range of translatable training courses, in 2015-17,
- greater emphasis on roll-out of the new courses in Arabic, English, French, Russian and Turkish under components 2.1 to 2.3.

The training component will use the implementation of the regional roll-out to build up the capacity of **regional experts** in both development of new course content appropriate to the region but also to deliver face to face and online support to countries in the neighbourhood, covering the major technical disciplines involved in PCP stages 1 to 3.



Strategic goal 3 – Promote the global strategy of progressive control of FMD

The 2017-19 strategy places emphasis on

- sustaining the GF-TADS work with South and East Asia, through support to regional e-learning/online networking on FMD;
- continuation of the PCP practitioners network, as a source of in depth training of the regional and national PCP
- roll-out of online laboratory training courses, in partnership with the FAO-WRL (Pirbright), to multiple regions;
- the continuation and development of the francophone network, to improve the surveillance development of control programmes in West/Central and North Africa;
- a common workplan agreed with the FMD-WG of GF-TADS



Component 3.3 Laboratory Support

FMD
NETWORK

EARLN

East African Regional Laboratory Network



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of the United Nations

2016

Title	Speakers	Date
Progressive PCP of FMD in East Africa	Nick Lyons, Ayebazibwe Chrisostom (Uganda), M. Teresa Scicluna	17 th February
Introduction to Risk Based Strategic Plans	Chris Bartels, Sam Okuthe (Ethiopia)	17 th March
Economic impact of FMD: an introduction and examples from Ethiopia and Tanzania	Jonathan Rushton, Wudu Jemberu	14 th April
Advanced outbreak investigations	Chris bartels, Yazeed Khalliel (Sudan)	12 th May
Risk based surveillance	Chris Bartels, Aldo Dekker	22 nd June
Biosafety and biosecurity at all levels for FMD surveillance, control and eradication	Kirsten Tjørnehøj, Eunice Chepkwony (Kenya), Valerie Mioulet	7 th July
Vaccine matching: why should it be considered an important tool for the control of foot-and-mouth disease?	Anna Ludi, Tesfaalem Teklegiorghis Sebhatu (Eritrea)	28th September

**OIE/FAO FMD reference laboratories
meeting, 2016**
Anses, France





3.3 Support the global system for improved FMD reference lab services (World Reference Laboratory Contract, supporting FAO/OIE Strategy and Gf-TADs).

This will continue to include supporting the FAO FMD World Reference Laboratory to provide services and to continue as Secretariat of the OIE/FAO FMD lab network.

In 2017-19,

- there will be a roll-out of the new e-learning courses for laboratory investigation (FLITc) course operated in partnership with the FAO-WRL Pirbright and as an entry vehicle for greater laboratory networking.
- In this period, the emphasis in use of these courses is expected to re-inforce the regional networks (in Eastern and Southern Africa, and South Asia, and translation to French and Arabic versions for the francophone network and Mid-East/REMESA is foreseen.



Component 3.4: Global access to PCP-FMD training resources



Discussion Forum: Aetiology and Pathogenesis

Where do I add a new discussion topic to start a new topic? If you would like to reply to an existing discussion, please use the 'reply' link in the bottom right of that post rather than making a new discussion topic.

Discussion	Started by	Replies	Created at	Last post
Request for extension	Chikumbiwe	0	2	Discussion: Aetiology and Pathogenesis
Can you add a new discussion topic to start a new topic?	Walter Chikumbiwe	4	3	Discussion: Aetiology and Pathogenesis
Can you add a new discussion topic to start a new topic?	Walter Chikumbiwe	2	3	Discussion: Aetiology and Pathogenesis
Can you add a new discussion topic to start a new topic?	Chikumbiwe	1	0	Discussion: Aetiology and Pathogenesis

Online training
courses with lively
discussion forum



SAARC Epinet
meeting

Progressive Control
Practitioners' Online
Network

PCP Practitioner Network - Introduction

Progressive Control Practitioners' Network

Outbreak investigation
Is there anything new? Yes, there is!

Wednesday 1 March 2017
10.00 am Central European Time (CET)- In English

FMD outbreak investigation

PC Practitioner Network



3.4 Pillar III Training Component

Update:

- will build on success of pilot courses in Southern Africa (14 countries) and South Asia (8).
- The 3 new in-depth online courses developed (in 2015-17) aimed to develop advanced understanding of developing and monitoring FMD control programmes, will be provided on a **regional or global level, annually or twice a year** according to demand,
- with a cycle that focusses on **sustaining** expertise **development** in South Asia (2017-18) and West/Central Africa (2017-18),
- extended to other regions in 2018 (such as Eastern Africa, East Asia) **according to priorities agreed with the FMD-WG of of FAO and /or OIE**. It is expected that FAO and OIE or regional economic communities (RECs) will find support for any in country application.
- the **PC Practitioners' Network** will be given greater emphasis and support, to include support to achieve the same goals through the francophone network (which to a major extent will assist to build expertise in West and Central Africa).



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Resourcing the strategy

That the Executive and Secretariat seek support from DG-SANTE for those parts of the programme it is able to support and to leverage support from the member states and other states and agencies that could compliment or support parts of the programme.



Specific funding issues

To endorse the efforts of the Secretariat in respect of finding additional funding for

- the Research Fund, including studies relating to laboratory Biorisk management, and development of a European animal disease spread model remains a priority;
- Sustaining the roll-out of FMD training in the Pillar III regions, where “e-learning hubs” at regional level could be a successful model but there is limited capacity at present in FAO, OIE and the regional economic body secretariats to achieve this.



Resourcing neighbourhood risk reduction

To recognise the scope for potential application of the EuFMD training resources and system for e-learning as part of the response to FMD risks from the European neighbourhood, but the need for additional funding to safeguard work in Pillar II, to ensure a significant presence at national level to sustain institutional change in risk management.



Living with increased risk

To take note of the imbalance between the level of insecurity and disease risk in the European neighbourhood and the declining level (since 2006) of overall funds and emergency reserve allocations for major FMD events or interventions in the region.



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42nd General Session of the EuFMD

Report of the Standing Technical Committee and its working groups

Eoin Ryan

Chair, Standing Technical Committee

Central Veterinary Research Laboratory, Ireland



The STC: how does it help EuFMD CVOs?

- Identify issues of strategic concern
- Explore options to solve problems
- Allocate research funds for developing applied, real-world solutions through the EuFMD Fund for Applied Research
- Support experts in specific areas to work together through networks and working groups
- Goal: help EuFMD CVOs through improved understanding of problems and tools to address them





Vaccination to live working group

- Sub-committee on vaccination to live met in Paris, 8th June 2016
- Following on from the work of Paton et al. presented at Cavtat Open Session 2014
- Sub-committee: *Stephan Zientara (Chair), Donald King, Labib Bakkali Kassimi, Emiliana Brocchi (not pictured), Eoin Ryan, Kris de Clercq*





Key points

Important to tease out the constraints impeding the adoption of vaccination to live as a strategy and address them where possible

Can we make the decision process easier for CVOs?

A 3 month waiting period with a high level of surveillance and vaccination implementation may be as good (or better!) than a six month waiting period





Outputs of working group

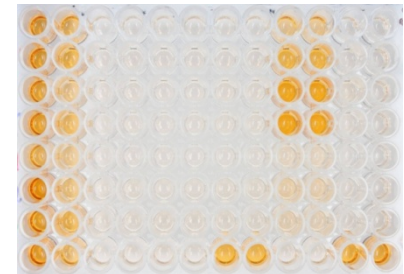
- Position paper presented to ExCom
- Presentation at Cascais OS
- Basis for workshop on implementation of vaccination to live policies, held in Ireland March 2017 (led by M Hovari, Secretariat)
- Workshop led to draft guidelines on developing an emergency vaccination operational plan (H Camphor & M De La Puente, Secretariat)





Diagnostic bank working group

- Followed discussions at last GS
- Position paper presented to ExCom
- Developed with Dr Herzog; now part of workplan for Balkan area





SCRPD and STC closed session meeting, Cascais Oct 2017

- Discussion themes:
 - Review of FMD research priorities
 - Development of EuFMD work programme



Outputs presented to ExCom

- Discussions informed the basis of the 4th call for projects under the fund for applied research
- Lack of dedicated research funds for FMD, other than EuFMD FAR
- Partnership arrangements involving public and private bodies working to a common goal may hold promise (e.g. between Nigerian Vom FMD lab, CODA-CERVA Belgium and MSD)
- Risk to Europe posed by A/Asia/GVII lineage highlighted
- Issues with lack of transparency for disease information relevant to PCP country assessments
- Value of network-based training as per EuFMD workplan recognised



Open Session, Cascais Portugal, October 2016

- 269 registrations
- 139 abstracts
- Online conference: 320 participants registered (in addition to 269 above); presentations made available, discussion forums on each session
- GFRA parallel session
- Innovation clusters on day 3: networking/discussion sessions, each with a practical theme and a focus on interactivity





Presentation recordings available on e-learning site: used as a reference resource for many other EuFMD online courses

▼ Current course

▼ Open Session Online 2016

- ▶ Participants
- ▶ General
- ▶ Wednesday Plenary Session
- ▶ Wednesday Parallel Session
- ▶ Thursday Plenary Session
- ▶ Thursday Parallel Session
- ▶ Friday Session
- ▶ Friday Parallel 2 Session
- ▶ Friday Parallel 4 Session

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✓ Wednesday Plenary Session

Innovative Ideas and Options for FMD Management

Session I: Opening

- EuFMD: Opening ☐
- A. Dekker: Frenkel Lecture ☐
- D. King: Update on Current Global Situation for FMD: New Outbreak and Threats ☐

Session II: The Livestock Sector and Disease Emergencies: Innovation and Ideas

- V. Shütz: Change in the Management of FMD Disease Control to a Private-Public-Partnership Approach ☐
- R. Horwitz: A 'Readiness Rating' for Balancing Biosecurity Priorities in FMD Preparedness and Response ☐
- Y. Templeman: Organisation of Raw Milk Collection during a FMD Outbreak ☐
- S. Mortensen: Economic Costs and Effects of Activities to Prevent FMD in Denmark ☐
- R. H.M. Bergevoet: Cost and Responsibility Sharing Arrangements in the EU to Prevent and Control Notifiable Veterinary Risks ☐

Session III: Higher Health Compartments: The Way Ahead?



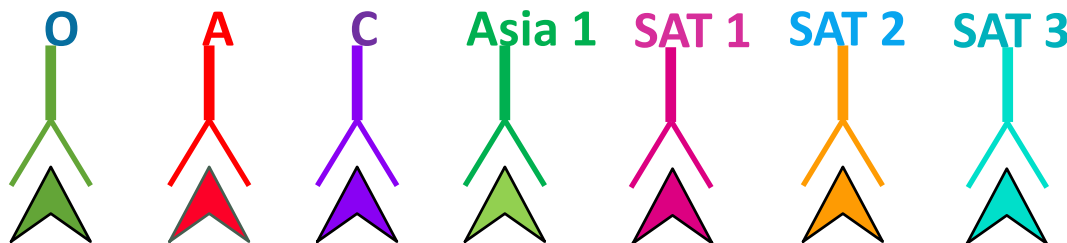
Some key messages from the Open Session

- Role which private sector can play in emergency preparedness and business continuity planning
- Allocations of costs and responsibilities for disease prevention & control
- Constraints to vaccination implementation: logistics, decision support for antigen selection, diagnostic support capacity, key decision points
- Advances in understanding of endemic virus circulation through WGS
- Risk based approaches to early disease detection
- Stakeholder attitudes to adopting disease control measures in endemic areas
- Strategies for vaccination and post-vaccination monitoring in endemic settings
- Innovations in diagnostics and vaccine development
- Knowledge exchange and training strategies for aiding global FMD control



FMD Research: an area of strategic concern

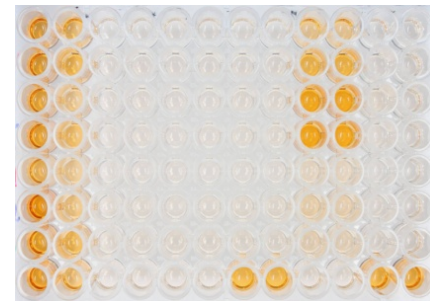
- No dedicated research fund for FMD – other than the EuFMD Fund for Applied Research
- Impact on fundamental/basic FMD research
- Best use of limited FAR funds is to support development of applied research and tools to address specific needs facing EuFMD members
- Field testing of new diagnostics can be facilitated through links with EuFMD field work





Issue: how to maximise the effectiveness of our limited funds for research?

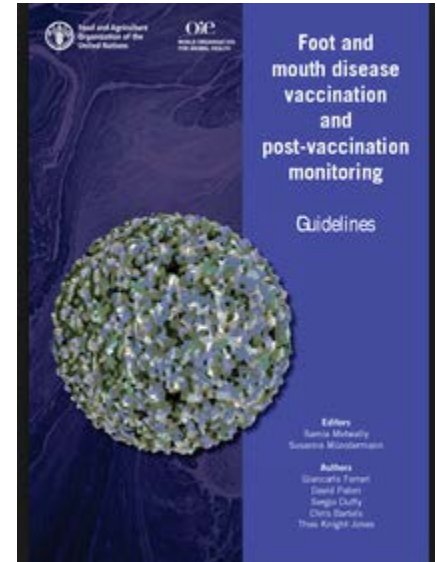
- FAR receives more high quality grant applications than can be funded
- Awareness of other funding programmes: Keith Sumption is FAO coordination point for STAR-IDAZ research funding consortium
- Key issues identified by STC and SCRPD may also be of concern to other funders
- EuFMD field activities can offer a cost-effective way to test new technology or epidemiological hypotheses in endemic settings





Project on methods for evaluating vaccine effectiveness

- How to evaluate the effectiveness of vaccines: a concern for EuFMD activities and for global FMD control
- Substantial work done by FAO/OIE working group
- USA (via Institute for Infectious Diseases, Texas A&M) funding a study design to evaluate the field efficacy of novel FMD vaccine; led by Dr Nick Lyons (Pirbright and EuFMD) and Prof Eyal Klement (Koret School of Veterinary Medicine, Israel); expert consultation workshop to be held in FAO HQ in June
- Example of how EuFMD can support research into critical areas for policy makers through a cooperative approach





Making the best use of opportunities in the field

- EuFMD field activities present an opportunity for new technologies to be tested in real-world outbreak settings
- Real-time training in particular allows the findings from new technologies to be linked to the local disease investigations carried out by the team



Preclinical detection of FMDV

funded by
 Department
for Environment
Food & Rural Affairs

- During transmission experiments at Pirbright we can detect FMDV in:
 - nasal and oral swabs
 - environmental samples
 - air samples
- Advantages of these samples:
 - non-invasive
 - quick and easy to collect
 - can be positive before clinical signs appear



Testing the methods in the field

funded by  Department
for Environment
Food & Rural Affairs

- Moving environmental sampling work from the lab to the field
- Visit to Nepal in November 2016
 - collaboration with EuFMD
 - in association with Australia/New Zealand-funded real-time training courses



Environmental sampling

funded by  Department
for Environment
Food & Rural Affairs

- During visit went to 12 farms:
 - also one milk collection point and Kathmandu goat market
- Positive environmental samples taken from:
 - all clinically-affected farms
 - one (out of two) preclinical farms
 - milk collection point
 - goat market





Fund for Applied Research – third round successes

- FMD impact calculator (J Rushton, RVC)
- Improved quality assurance of FMD vaccines (Seago/Harmsen, Pirbright and Lelystad)



Investigating the integrity of stock FMD vaccine being considered for use in Algeria

Eva Perez¹, Nicholas Lyons^{1,2}, Karima Ouali², Mohamed Slama², Valérie Mioulet⁴, Michiel Harmsen⁴, Bryan Charleston⁴, Keith Sumption² and Julian Seago^{1, *}

¹ The Pirbright Institute, UK; ² European Commission for the Control of Foot-and-Mouth Disease - EUFMD, Rome, Italy; ³ National Institute of Veterinary Medicine, Algeria; ⁴ Wageningen Bioveterinary Research, Lelystad, The Netherlands. Email: julian.seago@pirbright.ac.uk www.pirbright.ac.uk

Introduction

Foot-and-mouth disease virus (FMDV) is highly contagious and infects cloven-hoofed domestic livestock causing foot-and-mouth disease (FMD) and severe economic impact. Current FMD vaccines are made from chemically inactivated virus and need to contain intact viral capsids for maximum efficacy. FMDV exists as seven distinct serotypes with numerous subtypes within each serotype dictating the requirement to match vaccine strains to those circulating in the field. In addition FMDV, particularly the O and South African Territories (SAT) serotypes, are thermally unstable and the viral capsid readily dissociates into non-immunogenic pentameric subunits which can compromise the effectiveness of FMD vaccines.

FMDV-susceptible livestock in Algeria mainly concerns sheep, goats and cattle; in 2005 their respective numbers were 18.7, 3.2 and 1.56 million (FAO, 2006). Cattle are generally limited to the north of the country, whilst sheep and goat are predominantly raised in the steppe region. This study investigated the integrity of a stock sample of FMD vaccine, with an expired shelf life, that was being considered for use in Algeria. The work described was performed in collaboration between the European Commission for the Control of Foot-and-Mouth Disease (EUFMD), The Pirbright Institute and the Algerian Veterinary Services.



FAR funded project success:

Lateral Flow Devices: a game changer for sample transport?

The problem: transporting FMD samples from endemic countries to reference labs is expensive and complex.

The opportunity: Work by ANSES (funded by the EuFMD FAR) and by Pirbright has shown that viral genome can be recovered from used LFDs, while any infectious virus can be inactivated.

Could this be a way to transport inactivated samples cheaply & safely to obtain vital information to aid FMD control and risk management?





Outcomes of this FAR-funded project

- Facilitate detailed analysis of far more samples from areas where FMD poses a threat to EuFMD states
- More disease risk intelligence
- Cheaper
- Logistically easier

Received: 16 December 2016
DOI: 10.1111/rbd.12648

ORIGINAL ARTICLE

WILEY

Safe and cost-effective protocol for shipment of samples from Foot-and-Mouth Disease suspected cases for laboratory diagnostic

A. Romey | A. Relmy | K. Gorna | E. Laloy | S. Zientara | S. Blaise-Boisseau |
L. Bakkali Kassimi

Laboratoire de Santé Animale de Maisons-Alfort, Laboratoire OIE de référence Fièvre Aftreuse, UMR Virologie 1161, Université Paris-Est, Anses, Maisons-Alfort, France

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Email: sandra.blaise-boisseau@anses.fr

Funding Information
European Commission for the control of foot-and-mouth disease (EuFMD/FAO)

Summary

An essential step towards the global control and eradication of foot-and-mouth disease (FMD) is the identification of circulating virus strains in endemic regions to implement adequate outbreak control measures. However, due to the high biological risk and the requirement for biological samples to be shipped frozen, the cost of shipping samples becomes one of major obstacles hindering submission of suspected samples to reference laboratories for virus identification. In this study, we report the development of a cost-effective and safe method for shipment of FMD samples. The protocol is based on the inactivation of FMD virus (FMDV) on lateral flow device (LFD, penside test routinely used in the field for rapid immunodetection of FMDV), allowing its subsequent detection and typing





Fund for Applied Research 4th call for projects

- Call themes based on STC discussions and outcomes of Open Session innovation cluster discussions
- Six themes across the three pillars
- Call issued on 18th February
- 12 applications received; deadline March 17th
- Intention is to have decision on funding made shortly





FAR 4th call: themes

Theme 1: Tools to assist modelling: focus on estimating confidence in disease freedom using post-outbreak surveillance in vaccinated populations

Theme 2: Impact calculators: extending these to estimate impacts of vaccination-to-live scenarios and business continuity planning

Theme 3: Tools to manage FMD in wildlife: issues highlighted by the requirement to prove freedom from disease of wildlife

Theme 4: Methodologies for rapid evaluation of vaccine stability.

Theme 5: Optimising the use of bulk tank milk for FMD surveillance

Theme 6: Testing of biosafe transport methods for transport of FMDV RNA to international reference centres



Areas of strategic concern identified by STC

- Risks posed by long-range spread of FMDV (discussed by Dr King of WRL Pirbright)
- Need for pan-European disease spread modelling
- Benefits of coordination on contingency planning
- Need for bio-risk management expertise to revise laboratory standards, assist biorisk managers and assess new sample testing and transport methods



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Launch of the Bio Risk Management Network





EuFMD BRM Network

- Launched at the Open Session as part of the dedicated BRM innovation cluster session
- First webinar held on 24th January; very impressive level of participation from those involved in BRM in labs across Europe
- Many issues identified for follow up discussions, high level of interest
- Intention is to hold regular webinars, supported by discussion forum and specific training where needs are identified

e-Learning

Home / Biorisk Management Network

BioRisk Management Network

Welcome to the EuFMD Biorisk Management Network

The objectives of this network are to help those working on FMDV Biorisk Management in laboratories or in field situations by providing a space for discussion, support and training. The network aims to:

- a) Enable a harmonised approach to the challenges of applying FMDV BRM principles to the actual real-life;
- b) Identify training needs and addressing those gaps through webinars and training courses;
- c) Create closer connections between those facing similar challenges in different countries and environments.

Who is the network for?

The network is aimed at those involved in biorisk management of foot-and-mouth disease, particularly those in high containment laboratories but also those involved in field situations or contingency planning.

Network co-ordinator

- Kathrin Summermatter
- Eoin Ryan

Biorisk Management Committee

EU FMDV – Biorisk Management Committee

28th October 2016

Kathrin Summermatter introduces the Biorisk Management network at the EuFMD Open Session



Thank you – any questions?

The Standing Technical Committee 2015-17:

Stephan Zientara

Yanko Ivanov

Karin Schwabenbauer

Eoin Ryan



Thanks to Keith, Nadia, Mark, Jenny and the EuFMD team

Thanks also to the working group members and BRM group members especially Kathrin Summermatter



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42nd General Session of the EuFMD

Progressive Control Pathway for FMD Guideline Update

EuFMD

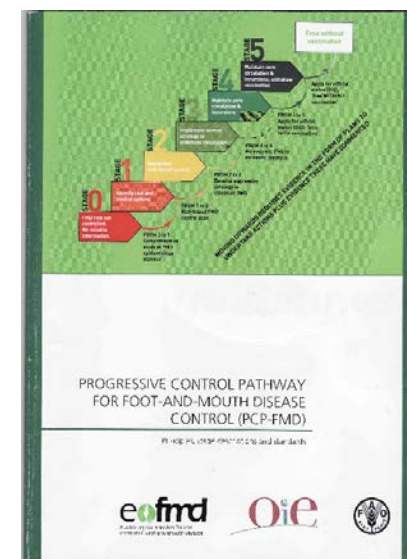
The EuFMD Constitution (2015):

ARTICLE II Obligations of Members. For Members not recognised by the OIE as having the status of freedom from foot-and-mouth disease, except where the status has been temporarily suspended, there should be in place a **national plan for the progressive control of the disease**



Background

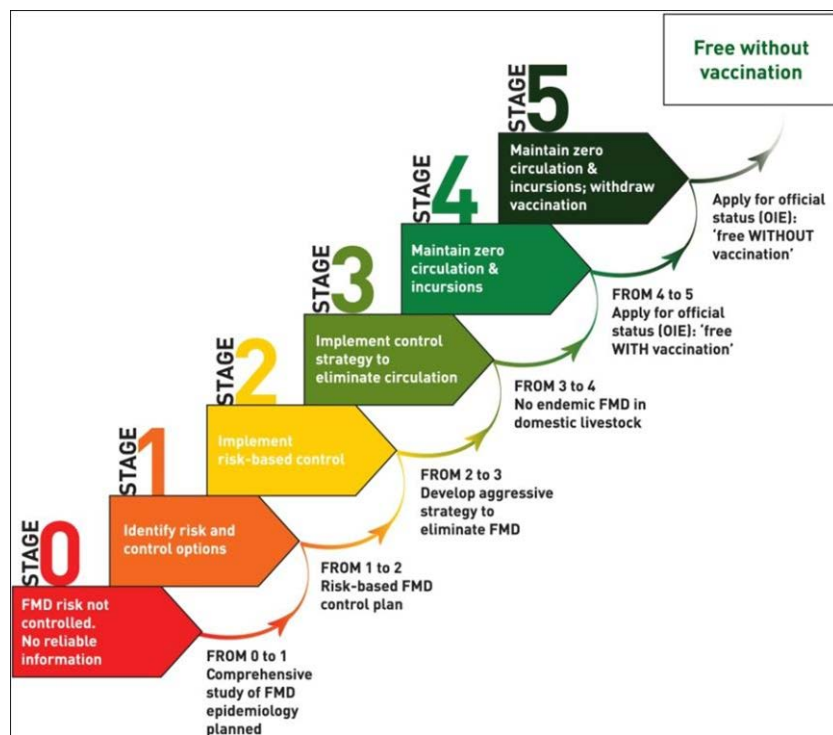
- First proposed at the EuFMD Vienna ExCom in December 2008 (Sumption, Ferrari, Lubroth, Potzsch)
- Endorsed and adopted by the EuFMD in General Session 2009
- 1st Revision jointly developed 2010, adopted and published at General Session EuFMD (2011)
 - 1st Jointly agreed Guidelines have been in use since 2010
 - Key tool of FAO-OIE Global FMD Control Strategy





Background

- EuFMD experts have assisted OIE and FAO in the revisions of the Guidelines
- Updated version planned to be released in 2017





Key changes:

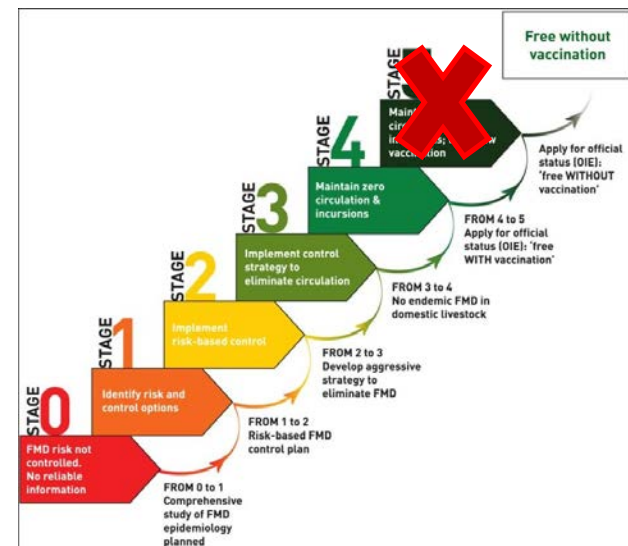
- Greater integration and alignment with OIE TAHC, “One Pathway”

1. Gateway to Stage 4: *OIE endorsement of Control programme*

2. Removal of PCP Stage 5

- Rationale:

- This stage prepared for DF countries to withdraw vaccination
- Removes expectation/obligation to move through DF with vaccination stage
- PCP Stage 1 to 3 assessments principally regional, whereas DF is an OIE process with global recognition





Key changes:

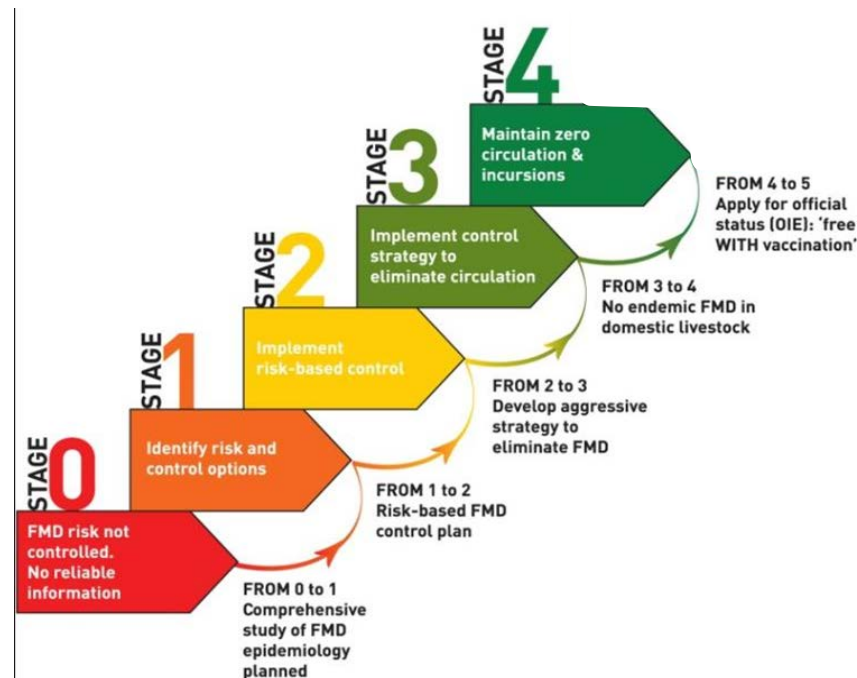
1. Removal of PCP Stage 5

2. Elaboration of process for stage Acceptance

- Evidence-based, transparent
- Regional Advisory Group



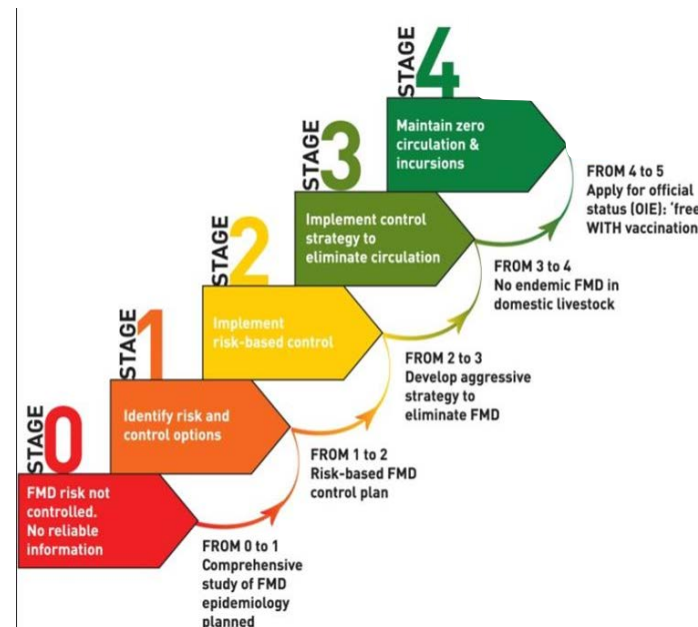
RAG meeting, Almaty 2015





Key changes:

1. Removal of PCP Stage 5
2. Elaboration of process for Stage Acceptance
3. Outline “fast-track” procedure
 - Advance by more than 1 Stage at a time

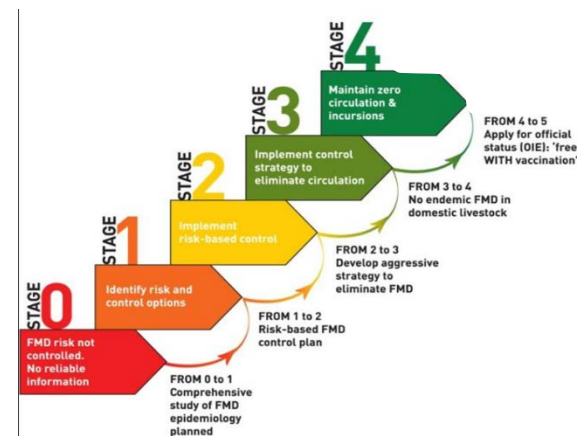


*“For a country wishing to fast-track, it must have fulfilled **all of the key outcomes from the previous Stage(s)**, plus have met the **minimum requirements for inclusion in the Stage they are applying to enter.**”*



Key changes:

1. Removal of PCP Stage 5
2. Elaboration of process for Stage Acceptance
3. Outline “fast-track” procedure
4. Criteria to withdraw Stage Acceptance
 - According to RAG assessment, at least every 3 years



Minimum requirements to remain in the Stage (*failure to comply will lead to acceptance in a lower Stage*):

Stage 2- Risk-based control measures implemented and monitored

Stage 3- Rapid detection and response to all FMD outbreaks

Stage 4- No endemic circulation of FMD virus in susceptible livestock



Key changes:

1. Removal of PCP Stage 5
2. Elaboration of process for Stage Acceptance
3. Outline “fast-track” procedure
4. Criteria to withdraw stage Acceptance
5. Explicit inclusion of OIE PVS critical competencies
 - “enabling environment”

Critical competencies relevant to PCP-FMD	Level of Advancement required			
	PCP Stage 1	PCP Stage 2	PCP Stage 3	PCP Stage 4
I.2.A. Professional competencies of veterinarians	3	3	3	3
I.2.B. Competencies of veterinary para-professionals	1	3	3	3
I.3. Continuing education	3	3	3	3
I.6.A. Internal coordination (chain of command)	1	2	3	3
I.6.B. External coordination	3	3*	3	3
I.11. Management of resources and operations	1	2	3	3
II.3 Risk analysis	3	3*	3*	3*
II.11 Emerging issues	1	2	3	3
III.1 Communications	4	4*	4*	4*
III.2 Consultation with stakeholders	3	3	3	3
III.3 Official representation	2	3	3	3
III.4 Accreditation / authorisation / delegation	1	2	3/4	3/4
III.5.A. Veterinary Statutory Body authority	1	2	3/4	3/4
III.5.B. Veterinary Statutory Body capacity	1	2	3	3*
III.6 Participation of producers and stakeholders in joint	2	3	3	3*
IV.1 Preparation of legislation and regulations	3	3*	3*	3*
IV.2 Implementation of legislation & stakeholder compliance	1	3	3	3
II.5.A. Passive epidemiological surveillance	1	3	3	3
II.5.B. Active epidemiological surveillance	3	3*	3	3/4
II.6 Early detection and emergency response	1	1	3	3
II.7 Disease prevention, control and eradication	1	2	3	3
II.8 Ante and post mortem inspection	1	2	3	3
II.1 Veterinary laboratory diagnosis	2	2/3	2/3	2/3
II.2. Laboratory quality assurance	2	3	3	3
II.4 Quarantine and border security	1	2	3	3/4
II.13.A. Animal identification and movement control	1	2	3	3
IV.6 Transparency	2	3	3	3
IV.7 Zoning	1	2	2	3
I.1.A. Veterinarians and other professionals	2	3	3	3
I.1.B. Veterinary para-professionals and other technical staff	2	3	3	3
I.7. Physical resources	2	2	3	3
I.8. Operational funding	1	2/3	4/5	4/5
I.9. Emergency funding	1	1	3	4/5



Key changes:

1. Removal of PCP Stage 5
2. Elaboration of process for Stage Acceptance
3. Outline “fast-track” procedure
4. Criteria to withdraw Stage Acceptance
5. PVS critical competencies
6. OIE Endorsement of National Control Plan requirement to enter Stage 4
 - Previously in Stage 3



Indicator outcome to enter:

- Stage 1- Assessment Plan
- Stage 2- Risk-Based Strategic Plan
- Stage 3- Virus Elimination Plan
- Stage 4- OIE endorsement of National Control Programme



Implications for the EuFMD membership and neighbourhood

- Greater clarity on zoning and transitions
 - countries can have zones at multiple Stages including OIE recognised zones (Turkey)
- One Pathway
 - potential re-entry to PCP stages if compliance with TAHC conditions for “official control programmes”
- Potentially greater incentives to demonstrate competence in control (PCP3) before application for “official recognition of CPs”



Implications for the EuFMD membership & neighbourhood

➤ Stage Acceptance:

- WE RAG : European members of FAO/OIE that are not -free
 - Georgia and Turkey have developed progressive control plans

ME RAG : Palestine

The EuFMD Constitution (2015):

ARTICLE II Obligations of Members:... For Members not recognised by the OIE as having the status of freedom from foot-and-mouth disease, except where the status has been temporarily suspended, there should be in place a **national plan for the progressive control of the disease.**



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Thank you!



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42nd General Session of the EuFMD

Technical Committees and their functions in the upcoming biennium

Eoin Ryan

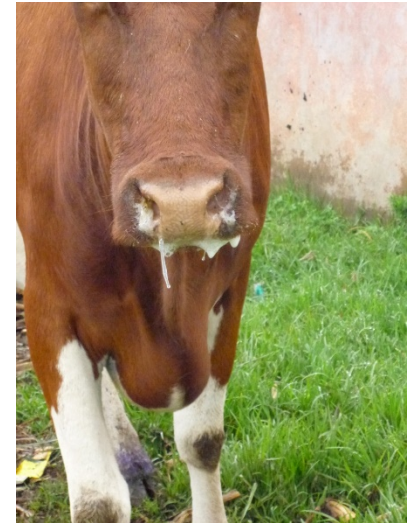
Chair, Standing Technical Committee

Central Veterinary Research Laboratory, Ireland



Technical committees – how do they help EuFMD CVOs?

- Address specific areas requiring attention
- Provide a way for experts to develop advice and recommendations
- These outputs can be used to inform EuFMD policies and programmes
- They mitigate the risk of significant issues being overlooked and help EuFMD actions stay relevant and effective





Context of proposal

- Clear need to provide support to those engaged in biorisk management, particularly in high containment laboratories
- FVO inspections of tier D labs (which handle infectious FMDV) require a pool of experts to accompany audit missions
- Provision of training and advice to tier C (NRLs which don't routinely handle infectious FMDV) and D labs can reduce the likelihood of a problem, mitigate any risks and improve audit outcomes
- BRM committee is ideally placed to provide such training and support – but lacks the organisational structure necessary



Issues related to BioRisk Management

- Need to maintain and update the minimum standards
- Need for expert advice in this highly technical area to be available to the member states and ExCom
- Need for experts to be available for inspections and audits
- Need to support BRM in labs in EuFMD MS which do not have FMD-free status (Turkey, Israel, Georgia)





Proposal

- Establish at the General Session a *Special Committee for BioRisk Management*

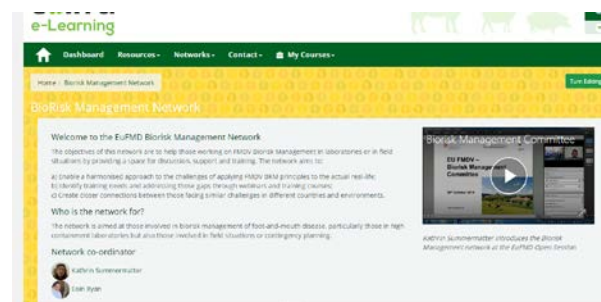
ToRs:

1. To provide guidance to the Executive Committee and Commission on the revision and further development of guidance documents, including the Minimum Standards, for laboratory biocontainment of foot-and-mouth disease virus
2. To develop guidance, on request of member states, the Executive or Standing Technical Committee, on technical issues relating to the application of the guidance documents, including the Minimum Standards
3. To provide guidance on training and support needs of the FMD Biorisk management community and provide assistance to training initiatives of the Commission in this field.
4. Maintain an overview of development in biocontainment and improve the communication of relevant developments to the experts in the member states who have FMDV Biorisk management responsibilities.



Special Committee on BioRisk Management

- BioRisk Management Network: NRL biorisk manager from each EuFMD MS to be invited to participate in any webinars, discussion forums, etc



- Special Committee on BioRisk Management: membership based on expertise
- Members from tier D labs (routinely handle infectious FMDV) plus from other labs, including from MS which are not yet FMD-free
- Budgetary support is required: component 1.5



How will these committees work together to help EuFMD CVOs better understand risks and make policy choices?

Special committee on research and programme development:

Technical experts from a range of areas; will provide feedback on new threats and new developments through working groups, webinars, TCs, etc

Special committee on biorisk management:

BRM experts, focussed on standards and training

Standing technical committee:

Identify areas of policy concern, establish WGs on issues, evaluate policy implications of special committee findings, report to Executive Committee





Thank you – any questions?



Biorisk Management in Action!





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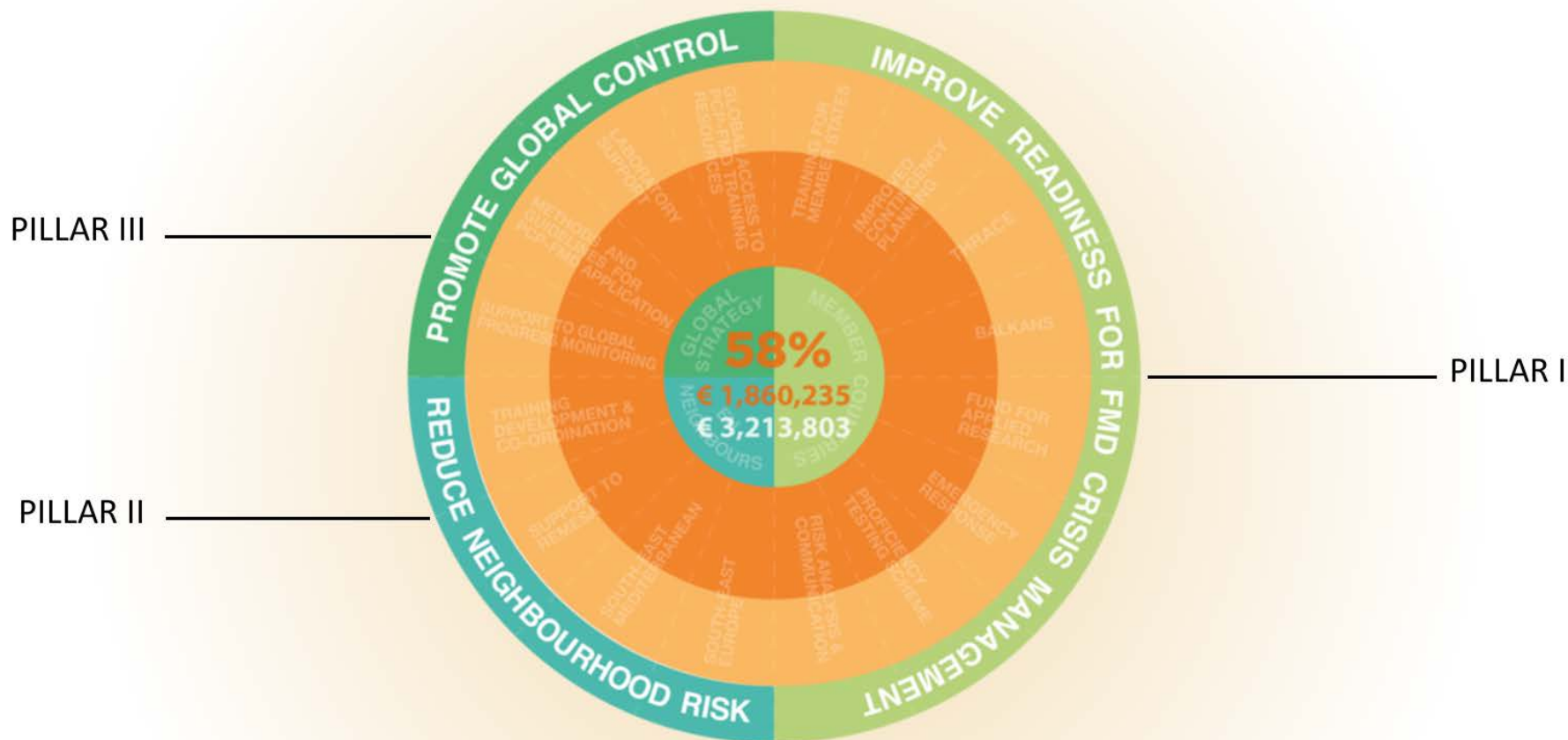
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42nd General Session of the EuFMD

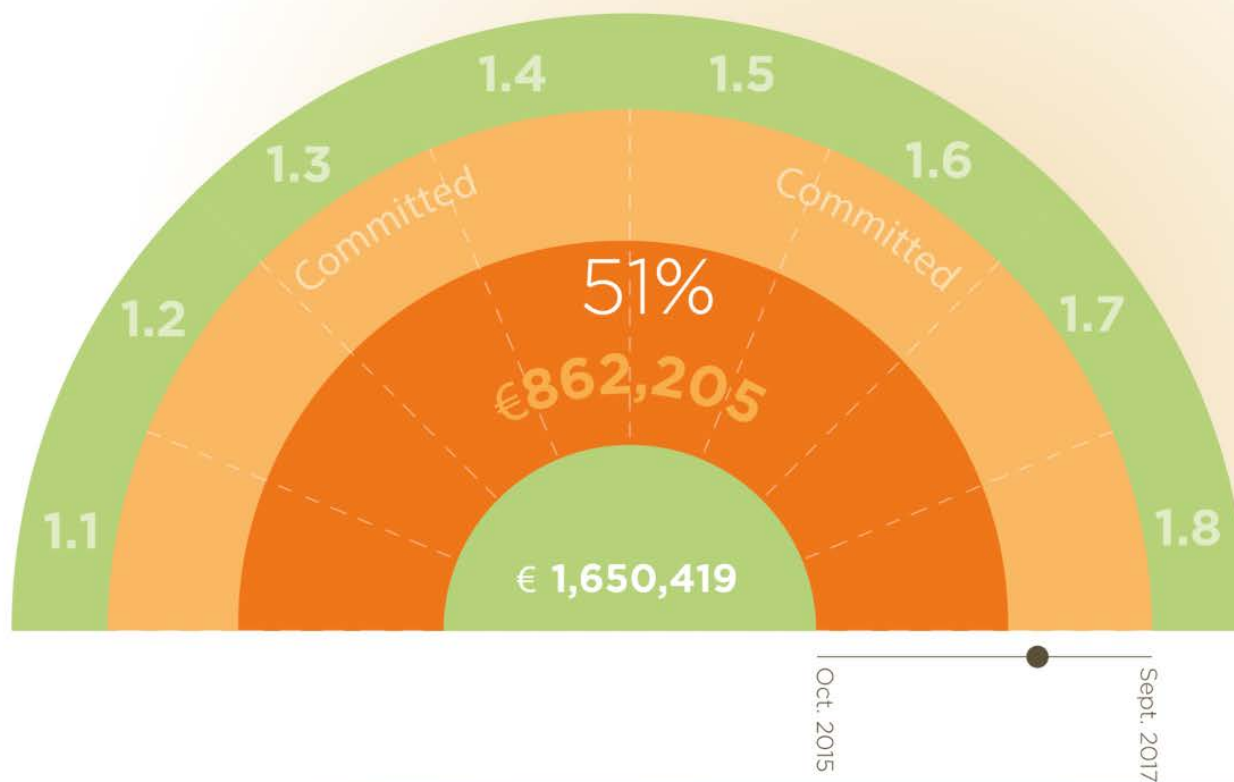
18 months EC phase IV (2015-2017) – Expenditures and Milestones

Cécile Carraz/Filippo Pedullá
EuFMD



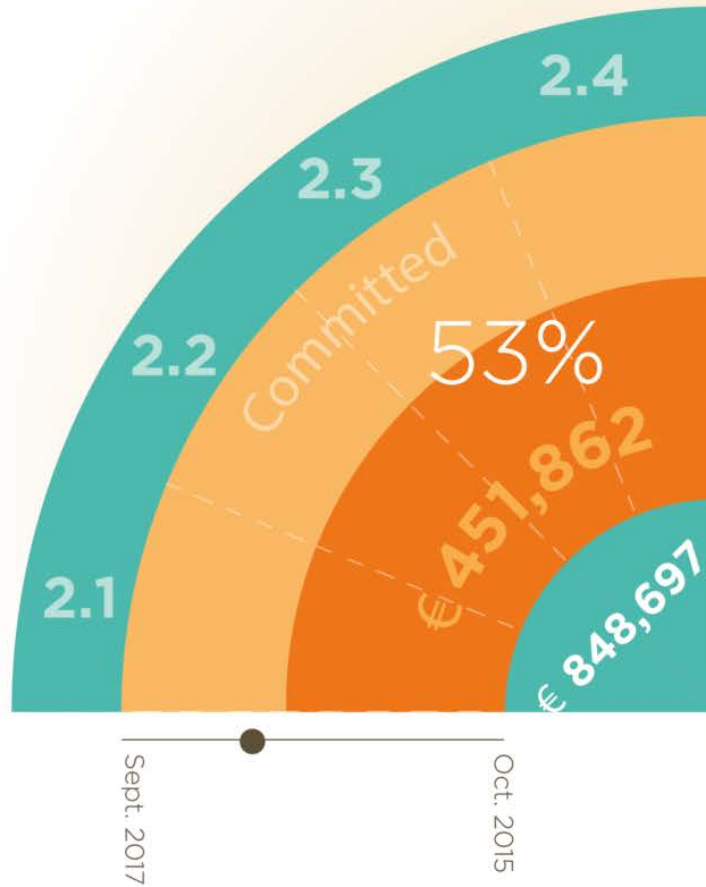


Pillar I



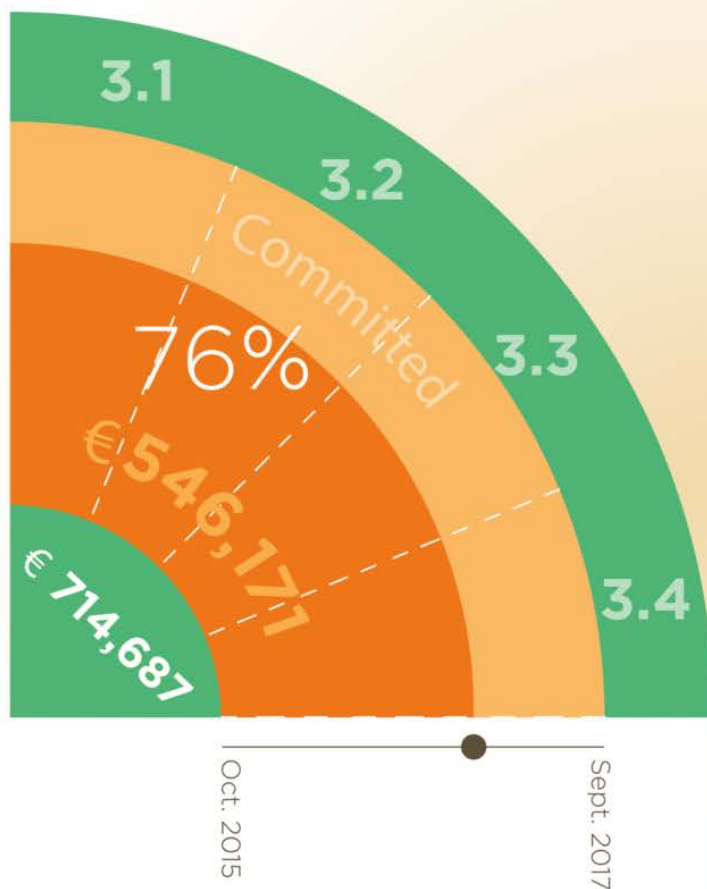


Pillar II



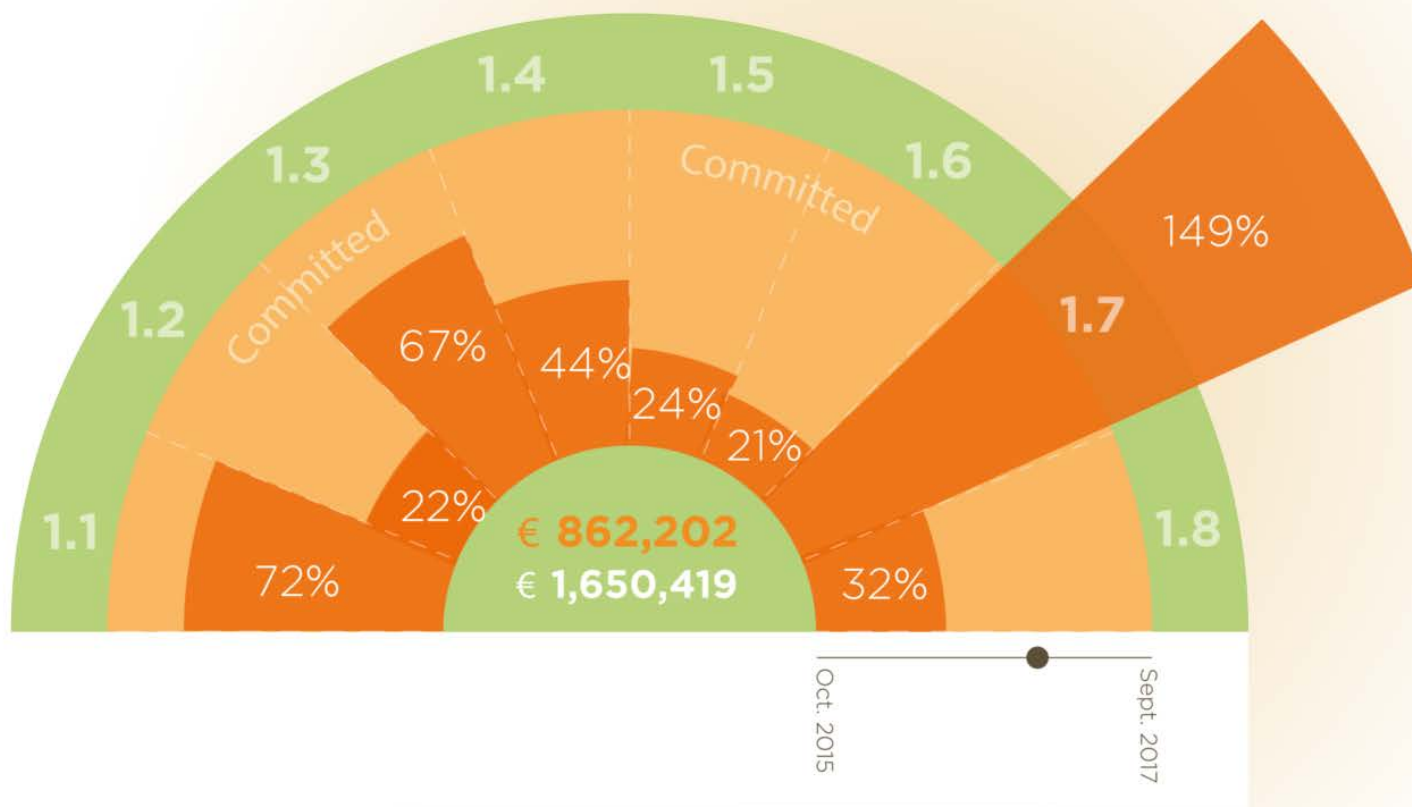


Pillar III





Pillar I





Participants from EuFMD member states

1.1.1

Training Credits

1.1.2

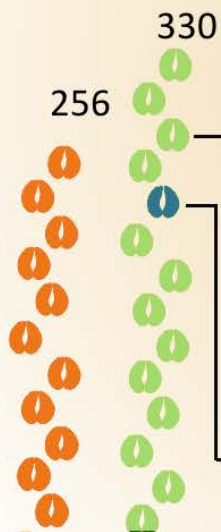
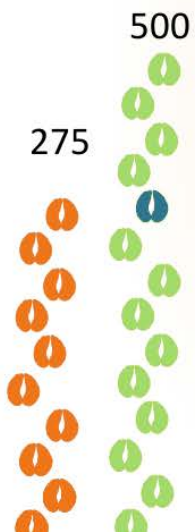
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Pillar I

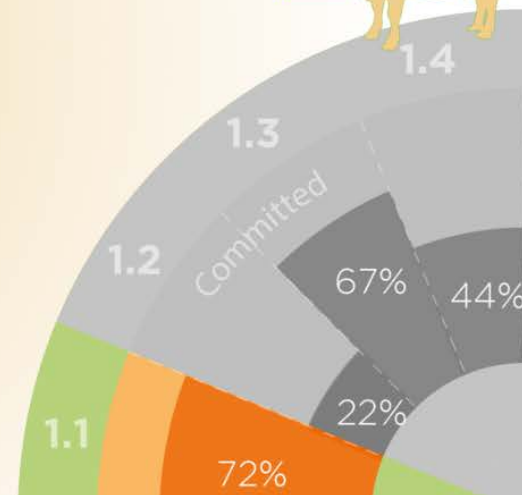
€ 567,716.00

€ 334,716.00

€133,000.00



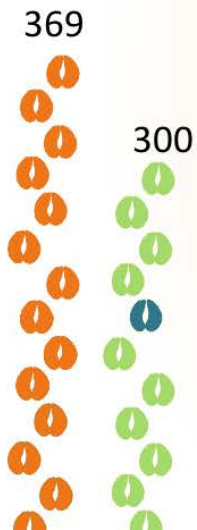
- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL





Participation in online meetings or webinars

1.2.1



Published tools and guidance

1.2.2



- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL

1.2

Pillar I

€ 90,000.00

€20,078.00

€69,922.00





Tripartite Management Meetings

Reports entered by field operatives (%)

1.3 Pillar I

€ 354,474.00



Confidence in FMD in Thrace region (%)

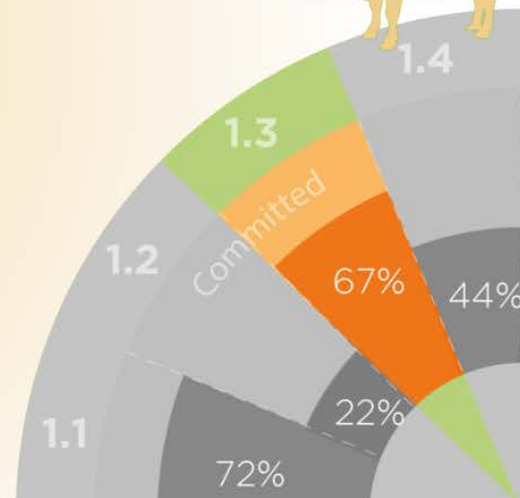
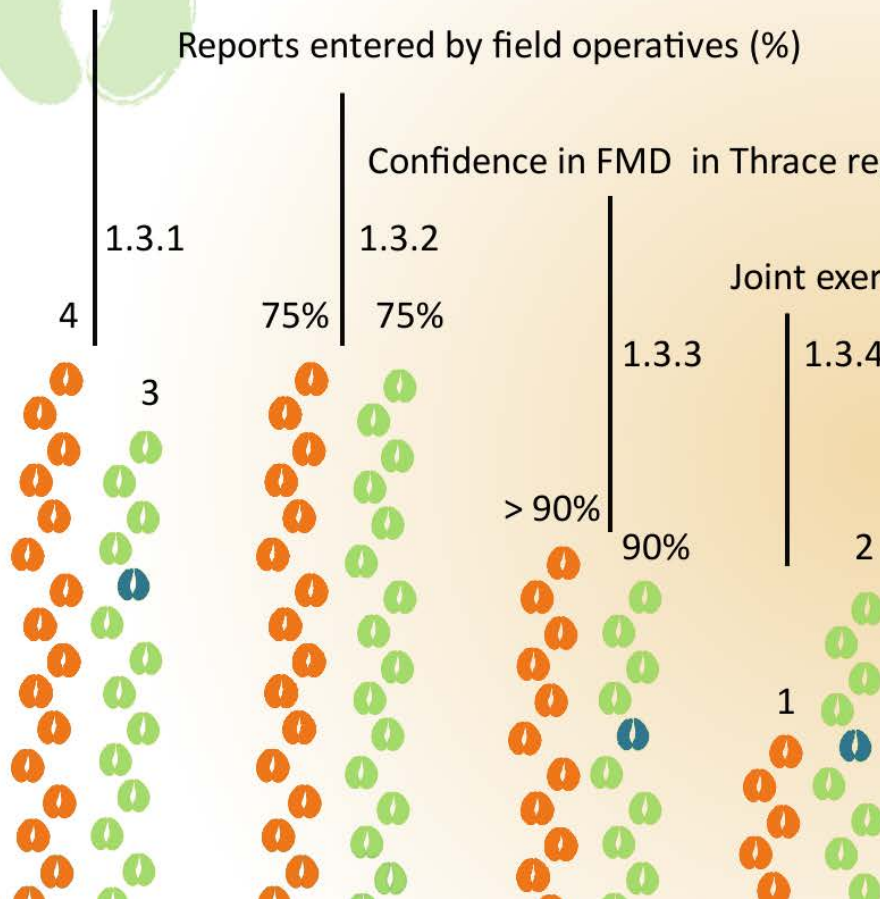
€236,850.00



€117,624.00

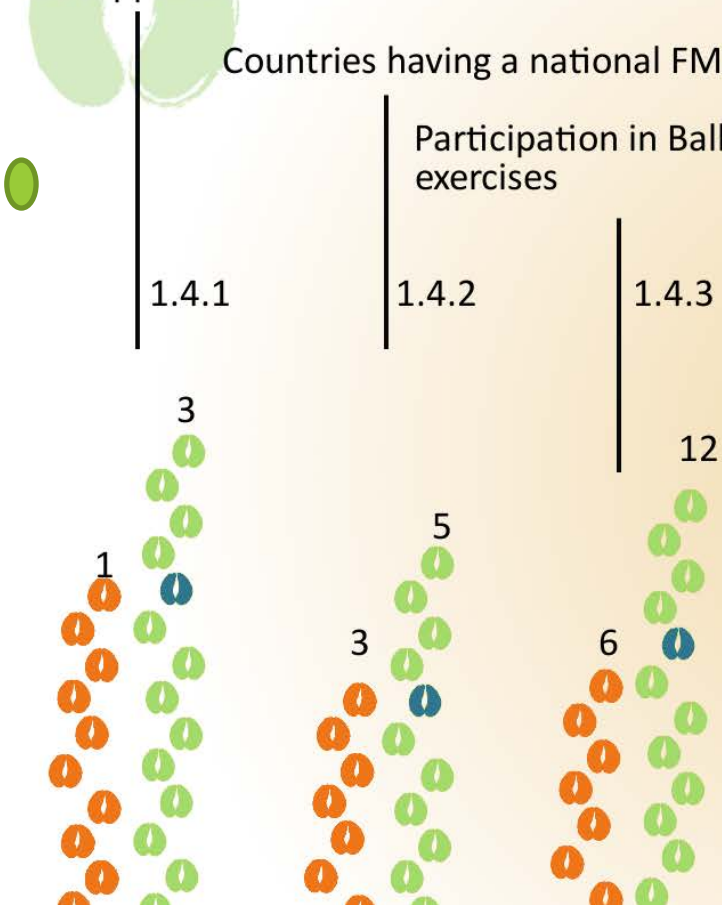


Joint exercises





Management Meetings held compared to if project was not supported



Countries having a national FMD exercise

1.4 Pillar I

€178,120.00

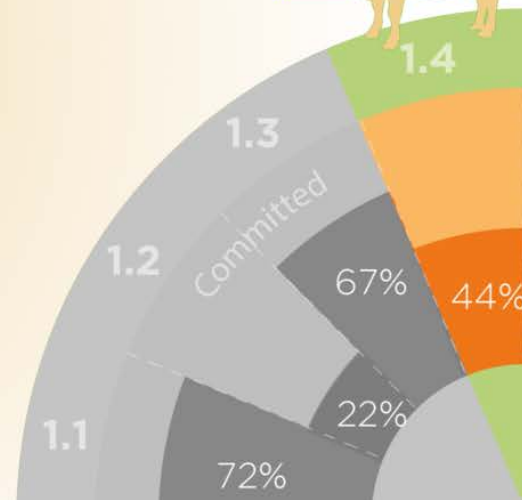


Participation in Balkan region proficiency test exercises

€78,046.00



€100,074.00





Meetings of the Special Committee

1.5.1



Number of projects

1.5.2



- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL

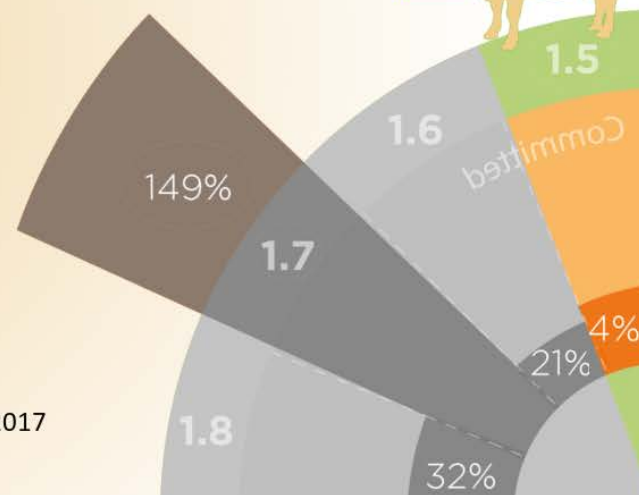
1.5

Pillar I

€ 301,930.00

€ 73,243.00

€ 228,687.00





EMERGENCY RESPONSE:

- Training in Paris-FR for Morocco
- Analysis and scenarios of resources pooling in case of foot-and-mouth disease epizootics in Tunisia
- Mission to Algeria (Outbreaks)
- Mission in Mauritius
- Online spanish training "emergency preparation course"

1.6

Pillar I

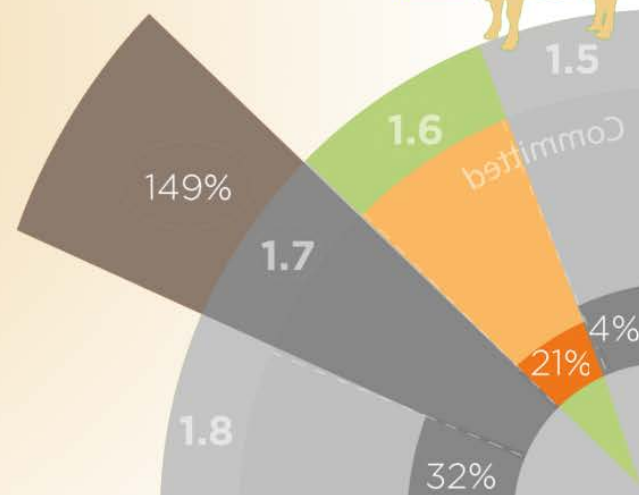
€ 156,179.00



€ 35,041.00



€ 130,138.00





Number participating over total of neighbourhood
countries indicated in contract with service provider



1.7

Pillar I

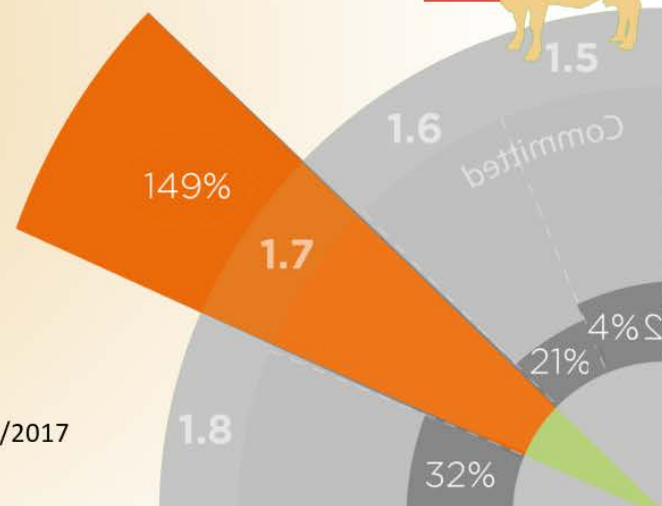
€ 46,500.00

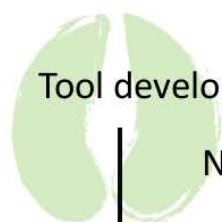


€69,451.00



€-22,915.00





Tool developed and published, available for us

Number of Global Monthly Reports

1.8

Pillar I

€ 46,500.00



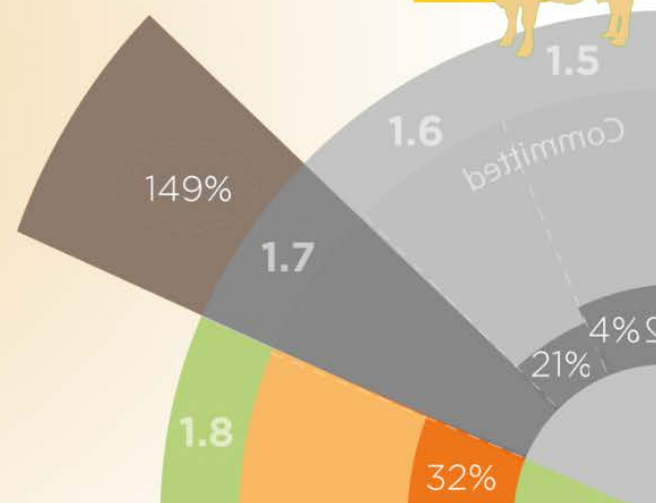
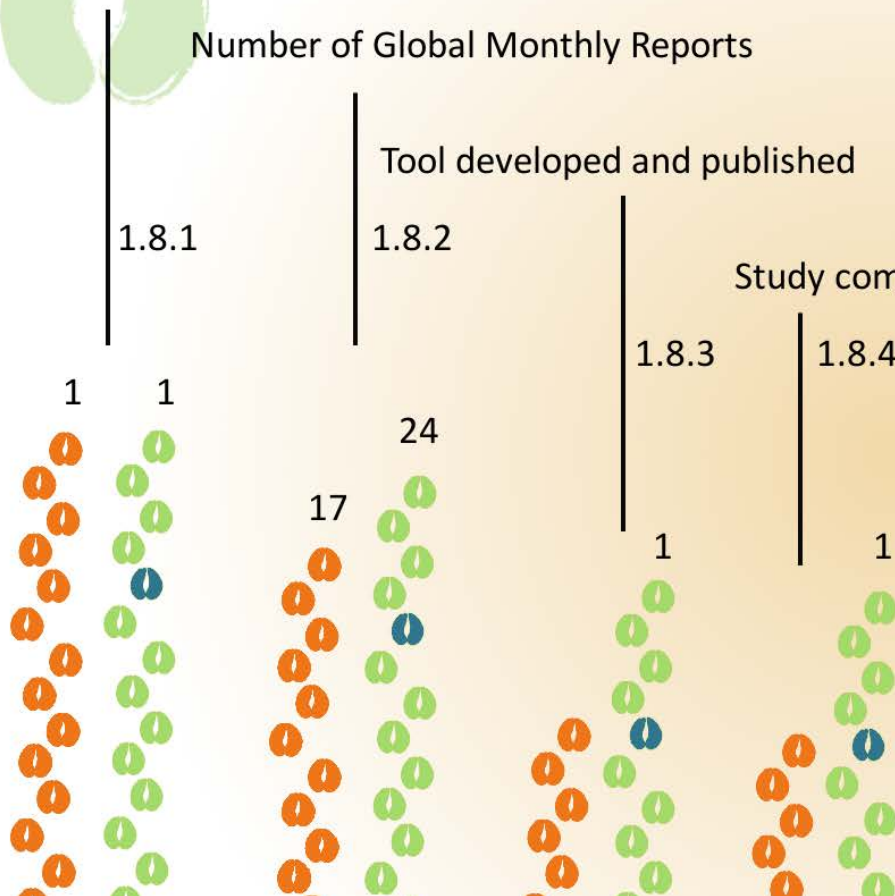
Tool developed and published

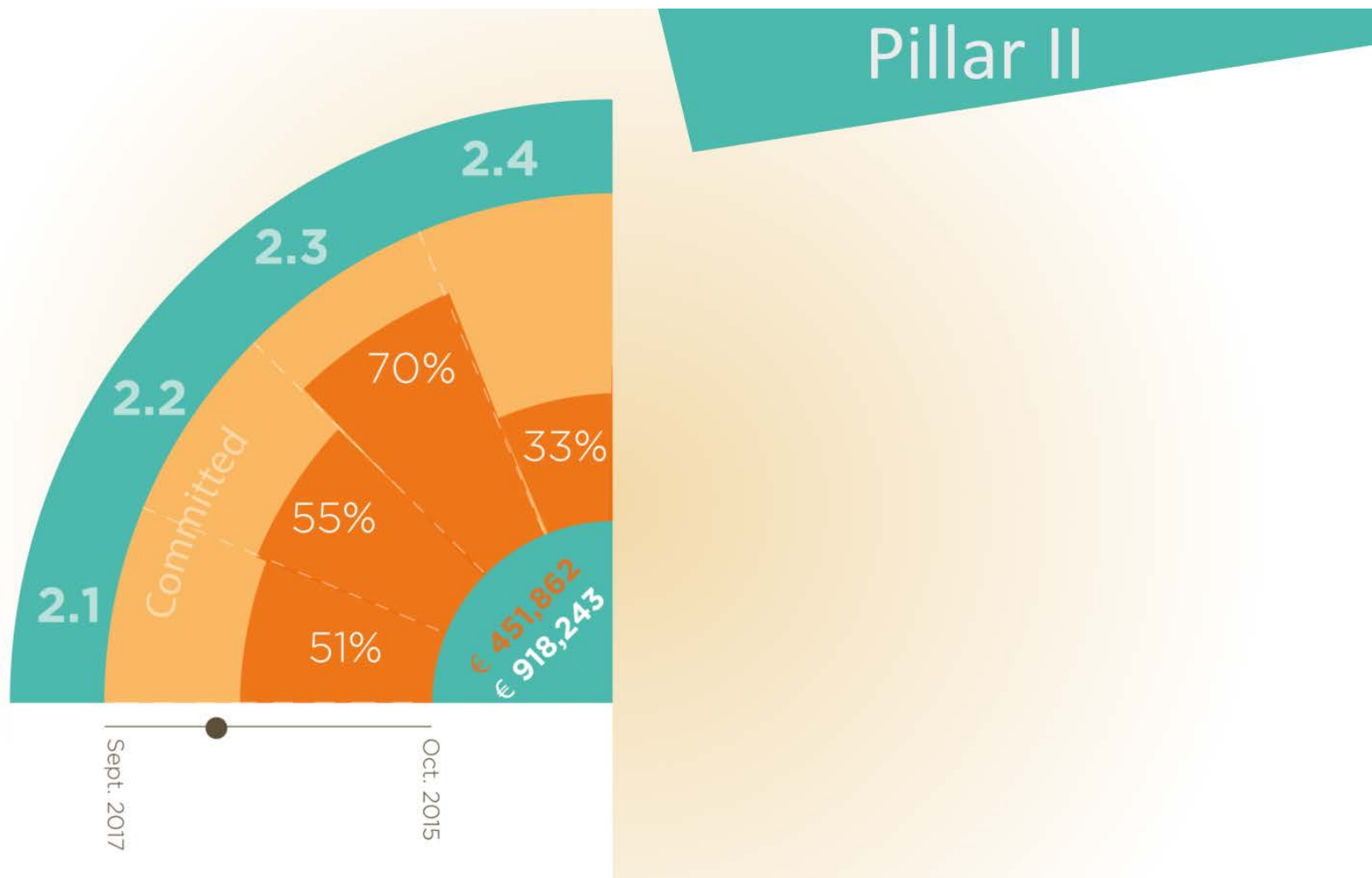
€14,813.00



Study completed

€31,687.00







2.1 Pillar II

Number of countries

Participants engaging in EuFMD e-learning event

€ 334,909.00

€ 170,474.00

€ 164,435.00

2.1.1

2.1.2

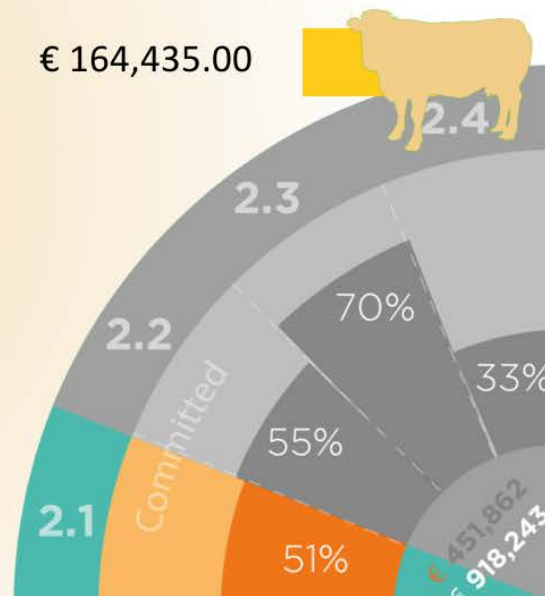
4

4

300

480

- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL





2.2 Pillar II

Number of countries

Participants engaging in EuFMD e-learning event

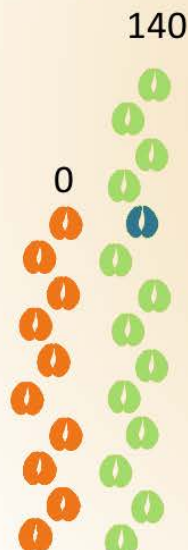
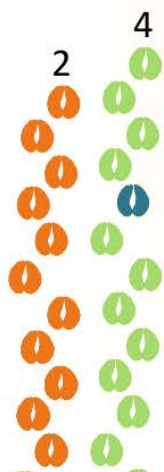
€ 175,239.00

2.2.1

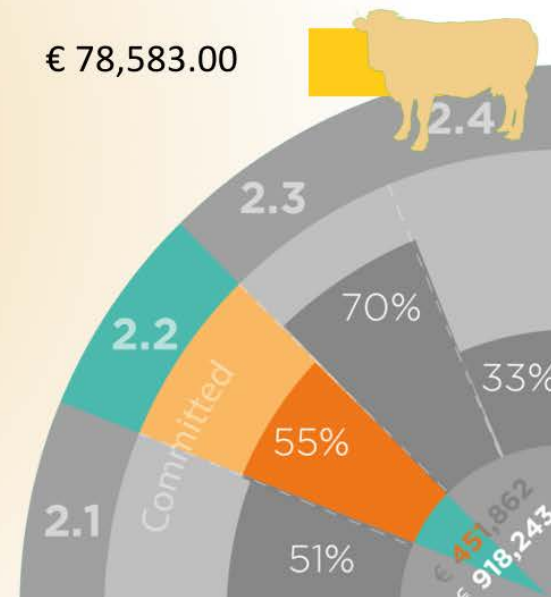
2.2.4

€ 96,656.00

€ 78,583.00



- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL





2.3 Pillar II

Number of countries with a RBSP accepted

Number of countries accepted in PCP stage 3

Number of high risk border areas
where a surveillance system is designed

Number of participant
from region taking part
in online training

€ 198,049.00

€ 138,906.00

€ 59,143.00

2.3.1

2.3.1

2.3.2

2.3.3

n/a

n/a

60

2.4

2.3

70%

55%

51%

33%

€ 451,862
€ 918,243



2.4

Pillar II

New online training courses

Percentage of training courses satisfying ME criteria
ANNUAL REPRT

€ 140,500.00

€ 45,826.00

€ 94,674.00

2.4.1

2.4.2

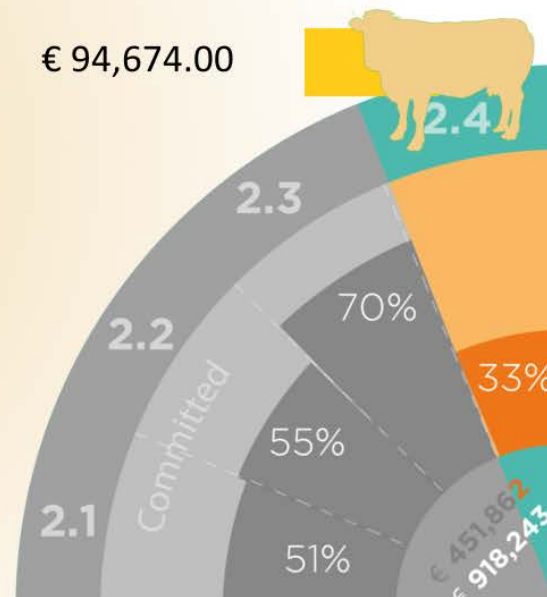
4

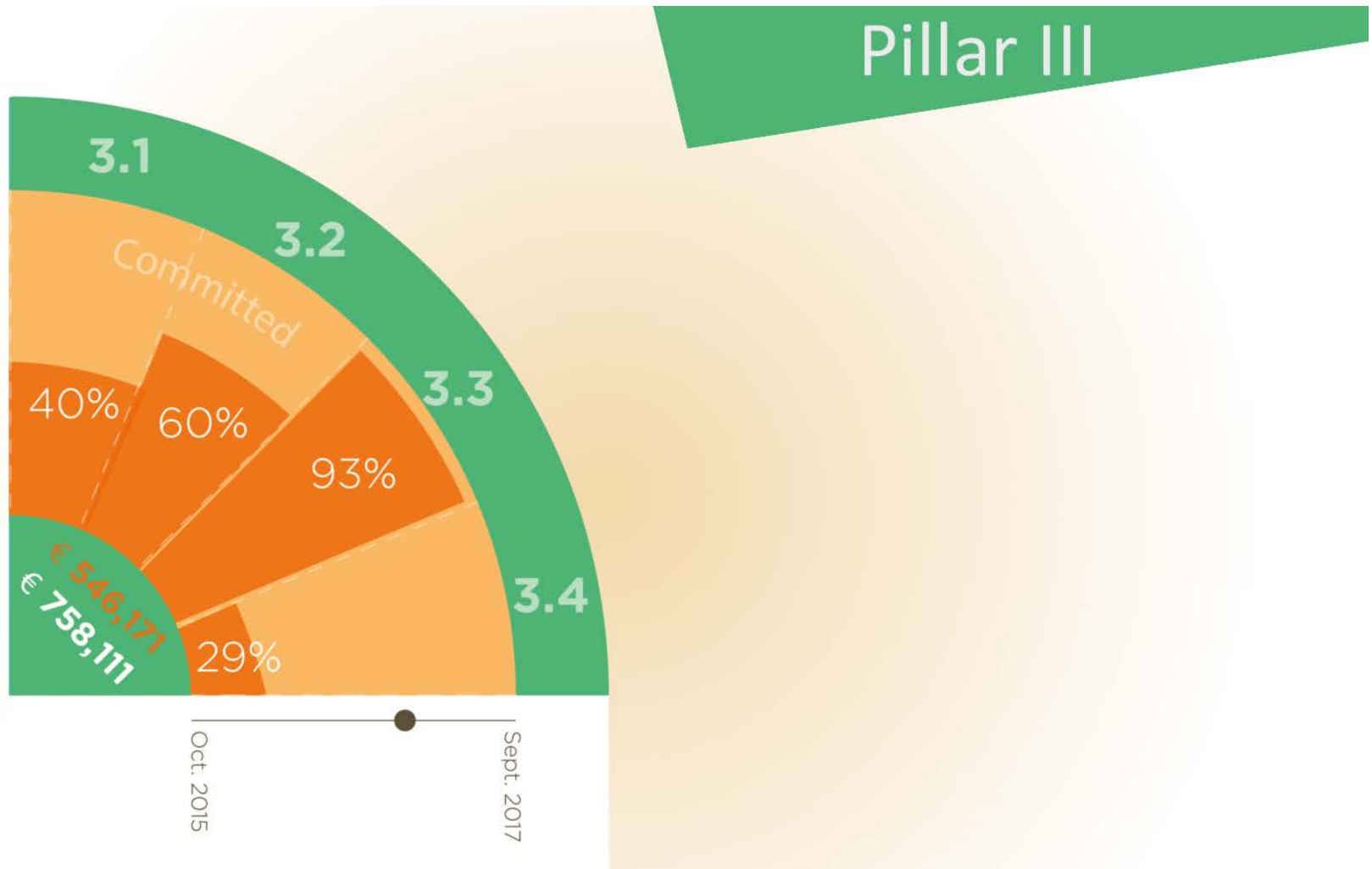
2

100%

n/a

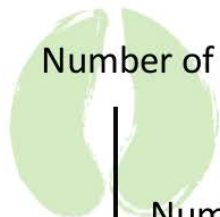
- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL







Number of reports for the FMD WG



Number of experts trained on PCP processes

3.1.1

Number of WG events supported

3.1.2

3.1.3

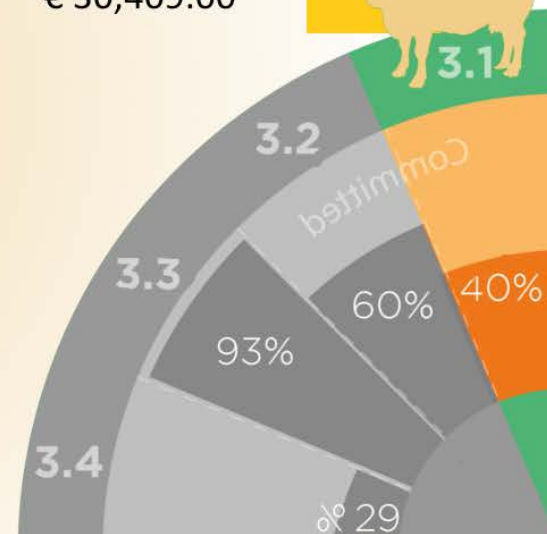
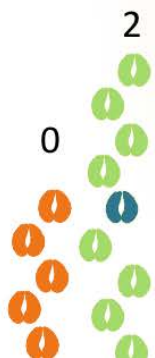
3.1

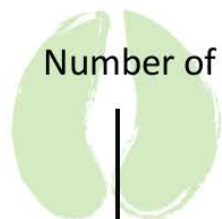
Pillar III

€ 50,495.00

€ 20,086.00

€ 30,409.00

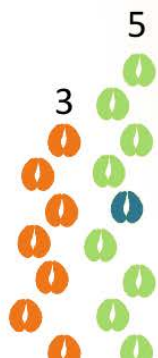




Number of guidelines

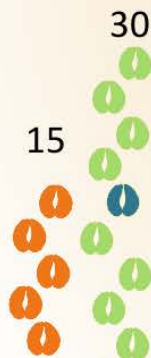
b

3.2.1



Number of guidelines

3.2.2



Number of roadmaps supported
by EuFMD trained expert

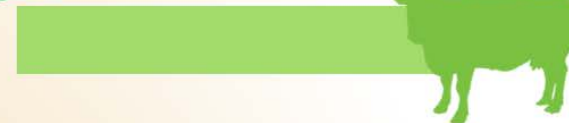
3.2.3



3.2

Pillar III

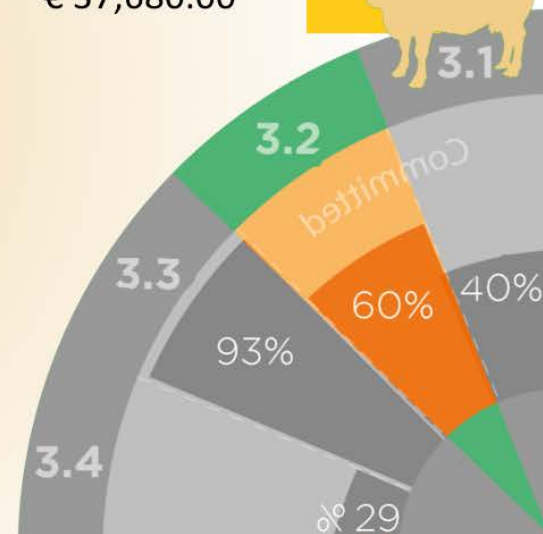
€ 95,000.00



€ 57,320.00



€ 37,680.00





Annual International Meeting

Number of samples typed over
the number expected

3.3.1

3.3.2

e-learning modules

3.3.3

3.3.4

Number of lab supported

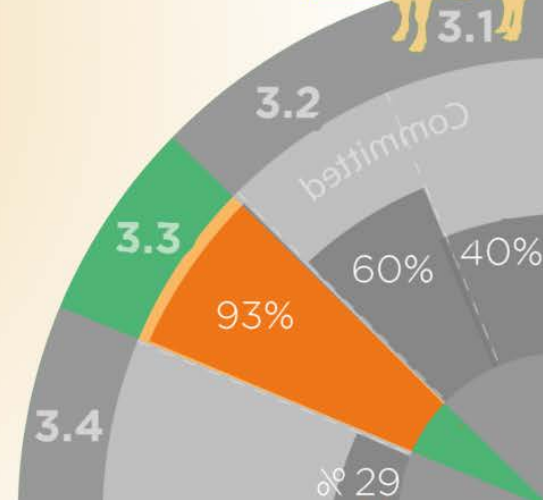
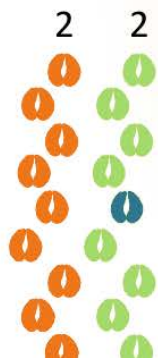
3.3

Pillar III

€ 476,692.00

€ 442,182.00

€ 34,510.00





E-learning courses delivered

Participants engaging in single
e-learning event annually

3.4.1

3.4.2

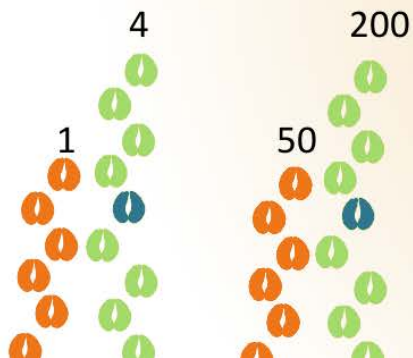
3.4

Pillar III

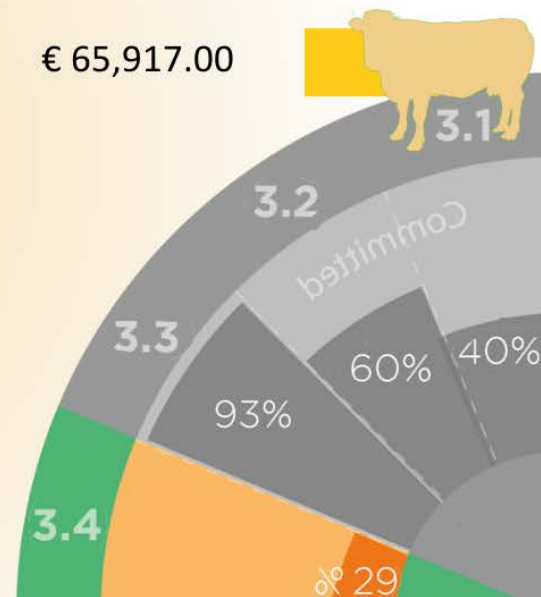
€ 92,500.00

€ 26,583.00

€ 65,917.00



- MILESTONE GOALS AFTER 2 YEARS
- MILESTONE EXPECTATION UP TO 04/2017
- ACTUAL LEVEL





42nd General Session of the EuFMD

EC PHASE III October 2013- September 2015 Financial Closure

	EUR
Total cost of the action	4.000.000
EC share of the total cost of the action	100%
Total contributions received in advance	1.097.207
Total expenditures	3.430.085
Balance due from EC	2.332.878
Part of final payment received on 12 Dec. 2016	2.104.006
Final balance requested from EC	228.872

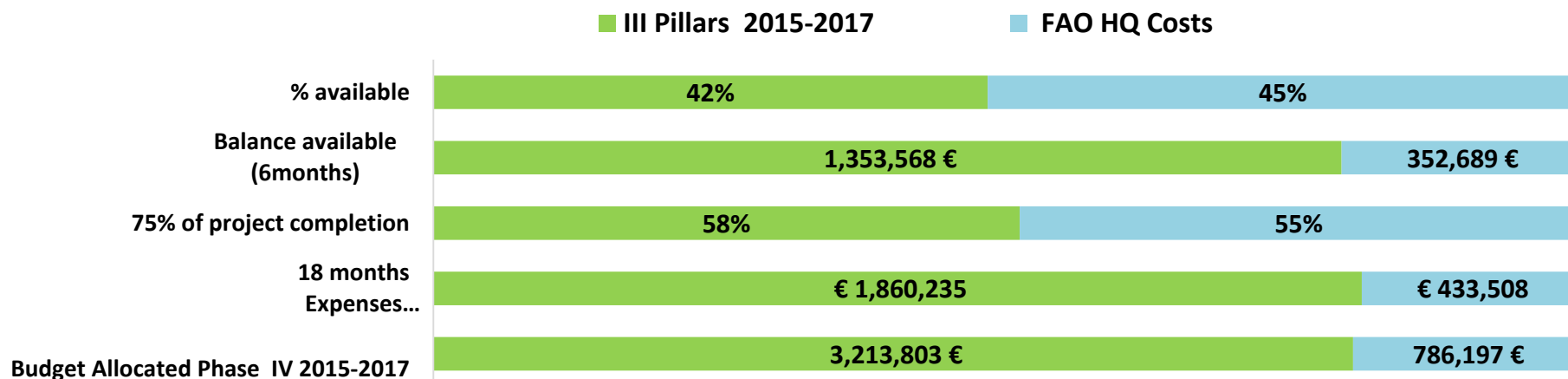
Account Line	Amount USD	Amount Euro	% spent
	Closure Financial		
Salaries Professional	\$ 266.601	€ 227.177	99%
Consultants	\$ 1.003.776	€ 855.340	96%
Contract	\$ 1.046.764	€ 891.970	107%
Travel	\$ 937.085	€ 798.511	81%
Training	\$ 253.494	€ 216.008	95%
Exp. Non Exp Procurement	\$ 127.069	€ 108.278	37%
General Operating Expenses	\$ 125.769	€ 107.171	45%
General Hoverhead Budget	\$ 1.446	€ 1.232	62%
Sub Total	\$ 3.762.004	€ 3.205.687	86%
Support cost (7%)	\$ 263.340	€ 224.398	86%
Total	\$ 4.025.344	€ 3.430.085	86%

Final Balance 10% upon results of EC detailed financial verification
(HQ 28-30 March 2017)

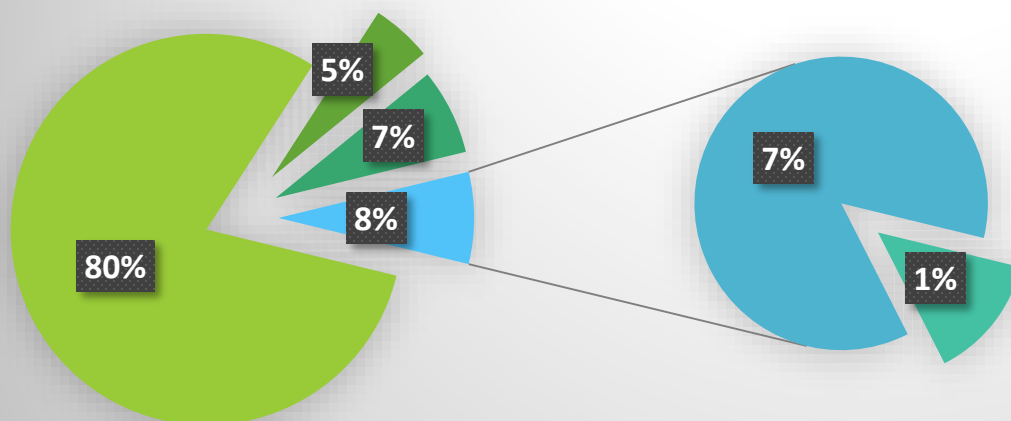
Cécile Carraz
EuFMD



EC PHASE IV (2015-2019) -1st Biennium Oct. 2015-Sept. 2017 – 6 months balance Apr. Sept.2017



Division of budget – 2015-2017 € 4,000,000



■ III Pillars 2015-2017

■ HQ Based Professional

■ HQ Based Operational Consultants

■ FAO General Overhead, Evaluation & official FAO reporting

■ FAO Project Servicing / Charge Support Cost (7%)



EC PHASE IV (2015-2019) -2nd Biennium Oct. 2017- Sept. 2019 Proposed Budget

Total for project € 4,000,000
Adding balance (+) or (-)
1st biennium by output,
component and budget line

Proposed Budget Phase IV - 2 Years				
PILLARS I - II - III				
Description	Pillar I	Pillar II	Pillar III	Proposed Total
	EURO	EURO	EURO	EURO
Salaries Professional	114,845	50,499	34,209	199,553
Consultants	545,439	366,244	219,446	1,131,129
Duty Travel	396,200	241,500	90,495	728,195
Contracts	339,830	91,500	412,533	843,863
Training	144,000	125,947	22,500	292,447
Procurement	210,336	60,952	31,659	302,947
Report Costs	2,688	1,025	889	4,602
Project Evaluation Cost	23,962	6,334	6,710	37,006
General Operating Expenses	144,778	43,798	10,000	198,576
Subtotal	1,922,078	987,799	828,441	3,738,318
Grand Subtotal				€ 3,738,318
Support Cost. 7%				€ 261,682
GRAND TOTAL				€ 4,000,000

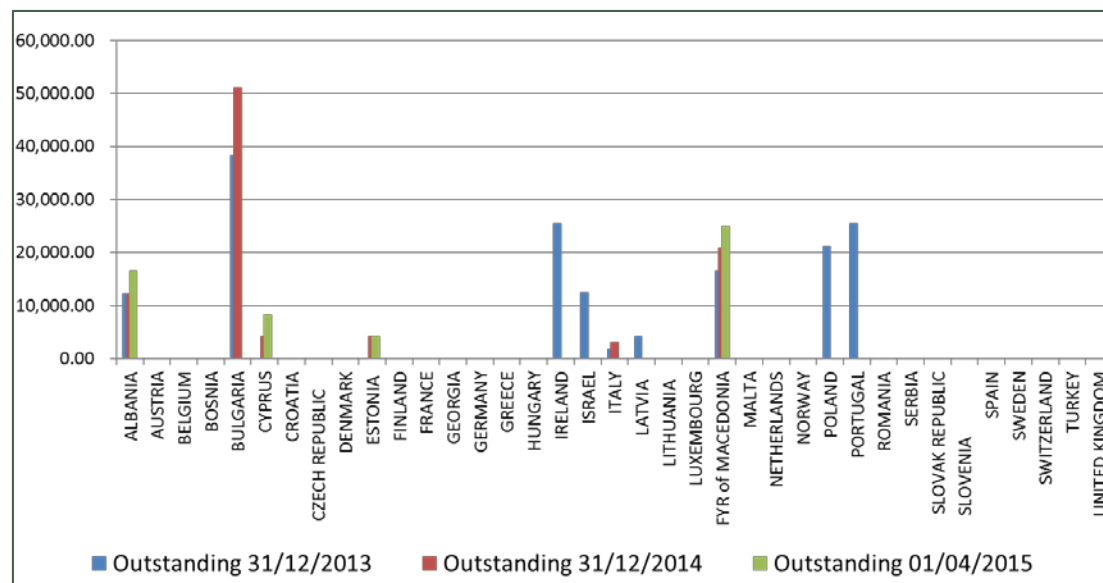
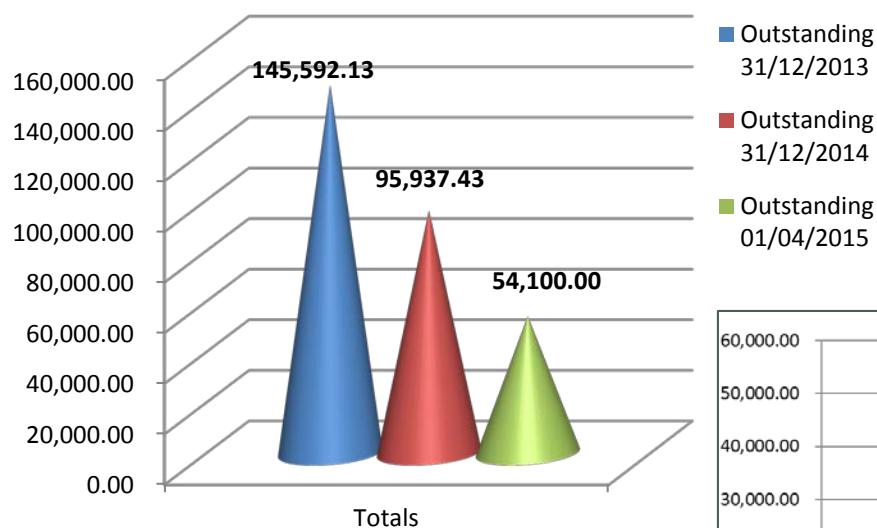
Proposed Budget Phase IV per Activity 2 Years																
PILLARS I - II - III	Components Pillar I								Components Pillar II				Components Pillar III			
Description	Component 1.1	Component 1.2	Component 1.3	Component 1.4	Component 1.5	Component 1.6	Component 1.7	Component 1.8	Component 2.1	Component 2.2	Component 2.3	Component 2.4	Component 3.1	Component 3.2	Component 3.3	Component 3.4
	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO	EURO
Consultants	142,000	40,000	173,275	25,000	17,500	2,500	2,500	12,500	140,000	45,000	50,000	50,000	25,000	60,000	25,000	37,500
Duty Travel	180,600	25,000	52,500	57,500	58,100	5,000	2,500	15,000	77,500	69,500	64,500	30,000	25,495	22,500	25,000	17,500
Contracts	40,000	12,500	7,500	25,000	208,330	0	39,000	7,500	35,000	10,000	9,000	37,500			387,533	25,000
Training	70,500	5,000	35,000	12,500	10,000	2,500	2,500	6,000	60,586	19,650	32,711	13,000		5,000	10,000	7,500
Procurement	7,616	0	38,399	15,642	500	147,679	0	500	11,500	8,052	41,400			2,500	29,159	
General Operating Expenses	27,000	7,500	47,800	42,478	7,500	7,500	0	5,000	10,323	23,037	438	10,000		5,000		5,000
Subtotal	467,716	90,000	354,474	178,120	301,930	165,179	46,500	46,500	334,909	175,239	198,049	140,500	50,495	95,000	476,692	92,500

Proposed Budget Revision per HQ staff and Support Costs	
Salaries Professional	199,553
Consultants Budget (HQ only)	283,354
Evaluation and Official Reporting (FAO)	41,608
Project Servicing Charge (7%)	261,683
TOTAL for HQ staff & Support Cost	786,198
	4,000,000



42nd General Session of the EuFMD

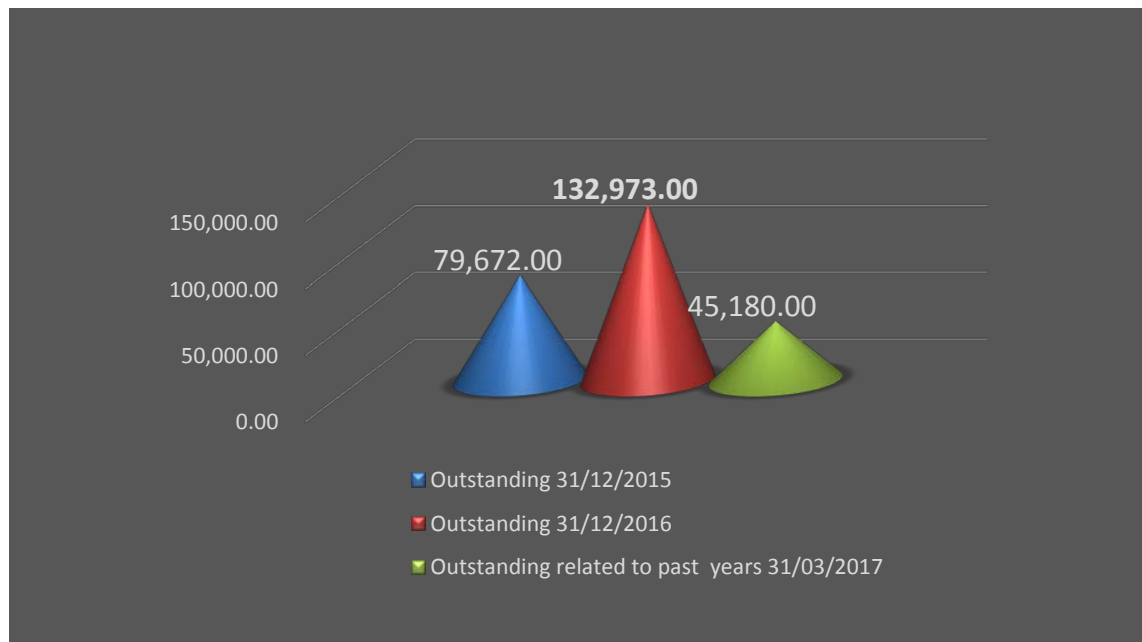
MS – Outstanding contributions year 2013-2014 (41st GS-April 2015)-Tot. \$ 300,000



Cécile Carraz
EuFMD



MS – Outstanding contributions year 2015-2016 - April 2017- Tot. Circ.\$ 45,000



Outstanding 31/12/2015



Outstanding 31/12/2016



Outstanding 31/03/2017





TRUST FUND No. 9042.00-MTF/INT/011/MUL-Inter-Regional-European Commission for the Control of Foot-and-Mouth Disease
Status of MS Contributions as at 31 March 2017 (expressed in USD)

Member Governments	Outstanding 31-12-2016	Contribution Due for 2017	Received up to 31-03-2017	Outstanding at 31-03-2017
ALBANIA	16,570.00	4,504.00	16,570.00	4,504.00
AUSTRIA	0.00	15,650.00		15,650.00
BELGIUM	23,386.00	23,386.00	23,386.00	23,386.00
BOSNIA	0.00	4,504.00		4,504.00
BULGARIA	17,290.00	4,504.00		21,794.00
CYPRUS	0.00	4,504.00		4,504.00
CROATIA	0.00	4,504.00		4,504.00
CZECH REPUBLIC	0.00	13,809.00	13,809.00	0.00
DENMARK	0.00	23,386.00		23,386.00
ESTONIA	0.00	4,504.00		4,504.00
FINLAND	0.00	13,809.00		13,809.00
FRANCE	0.00	46,611.00		46,611.00
GEORGIA	0.00	4,504.00		4,504.00
GERMANY	0.00	46,611.00		46,611.00
GREECE	0.00	15,650.00		15,650.00
HUNGARY	0.00	13,809.00		13,809.00
IRELAND	0.00	15,650.00		15,650.00
ISRAEL	0.00	13,809.00		13,809.00
ITALY	0.00	46,611.00		46,611.00
LATVIA	0.00	4,504.00		4,504.00
LITHUANIA	0.00	4,504.00		4,504.00
LUXEMBOURG	4,504.00	4,504.00		9,008.00
FYR of MACEDONIA	29,524.00	4,504.00	33,360.00	668.00
MALTA	4,504.00	4,504.00	4,504.00	4,504.00
NETHERLANDS	0.00	23,386.00		23,386.00
NORWAY	0.00	15,650.00		15,650.00
POLAND	23,386.00	23,386.00		46,772.00
PORTUGAL	13,809.00	13,809.00	13,809.00	13,809.00
ROMANIA	0.00	15,650.00		15,650.00
SERBIA	0.00	13,809.00	2,967.03	10,841.97
SLOVAK REPUBLIC	0.00	13,809.00	30.00	13,779.00
SLOVENIA	0.00	4,504.00		4,504.00
SPAIN	0.00	23,386.00		23,386.00
SWEDEN	0.00	23,386.00		23,386.00
SWITZERLAND	0.00	23,386.00		23,386.00
TURKEY	0.00	23,386.00		23,386.00
UNITED KINGDOM	0.00	46,611.00		46,611.00
TOTALS	132,973.00	606,997.00	108,435.03	631,534.97

*Serbia in 2016 overpaid by USD 2,967.03, amount has been credited to their 2017 invoice



STATEMENT 1				
MTF/INT/011/MUL - TF number 904200				
EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE				
Financial Report from 1st August to 31 December 2016				
	USD	USD	Eur	Eur
Balance as at 1 August 2016		343,633		309,888
Interest received	0			0
Contributions from member countries and institute	530,248		478,178	
Project Income Earned (Child)	0		0	0
Expenditure				
Salaries	377,220		340,177	
Consultant	166,969		150,573	
Contracts		(7,703)		-6,947
Duty Travel	4,687		4,227	
Training	1,067		962	
Hospitality	313		282	
General Operating Expenses	12,470		11,245	
Expendable Equipment		(2,025)		-1,839
Non-Expendable Equipment		(5,934)		-5351.281
Total Expenditure		547,064		493,342
Balance as at 31 December 2016		326,817		294,724
The Financial Statements of the Commission are maintained in US Dollars in accordance with the accounting policies and administrative systems of FAO. The amounts stated in Euros, including the opening balance, have been converted from US Dollars at the average monthly				



The FMD situation in Algeria





Before the FMD outbreak

- Since the last outbreaks enregistered in Algeria, two annual vaccination were done;
- Some problems were registered in the prevention and control program due to the lack of vaccine and the vaccination planned in the second half of 2016 was postponed to 2017. The laboratories did not bid for absence of bivalent vaccine available;
- Vaccin available monovalent O;
- costs of the vaccination are under the fonds FPZPP;
- A field study on “vaccine effectiveness”, proposed in July 2016 to Algeria, Morocco, and Tunisia in order to produce relevant information for improving the level of FMD control and preparedness against any reoccurrence of outbreaks was ongoing.
- A new simultaneous sero-surveillance was planned to assess whether there has been ongoing transmission of FMD virus in the small ruminant population in Algeria Morocco and Tunisia.



First Serotype A outbreak in Algeria

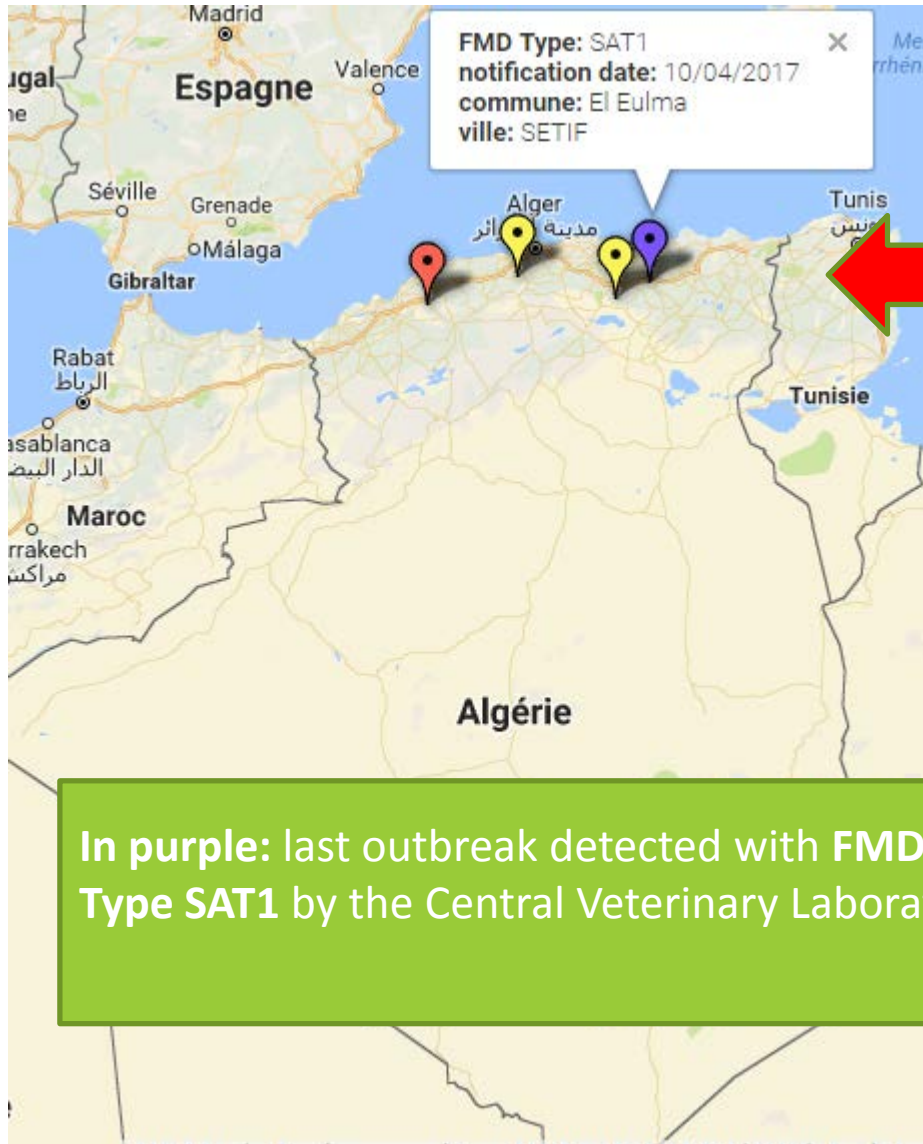
- Starting on the 24th of March, 7 cattle were infected on a herd of 12 animals;
- Immediately measures were applied in order to control this new outbreak in the country and vaccination against O.
- Serotype A was detected by Central Veterinary Laboratory in the collected samples with ELISA RT/PCR.
- OIE was notified on 31/03/2017





Measures in place

- **The information was given to the 48 Wilaya of the country;**
- **The Emergency team in place;**
- **Mobilisation of all the veterinarian staff and private vets ;**
- **Reporting of any suspicion by the most rapid means and immediate application of the measures laid down by the inter-ministerial decree on foot-and-mouth disease;**
- **Suspension of al the import of animals and animal Product to Algeria;**
- **Implication of the security services to stop any animal movement**
- **Movement control of animal in place and reglemented to only the slaughter houses and authorized only with sanitary certificate ;**
- **Press release addressed to local populations and livestock breeders;**
- **Use of the media for communication.**



In purple: last outbreak detected with FMD Type SAT1 by the Central Veterinary Laboratory

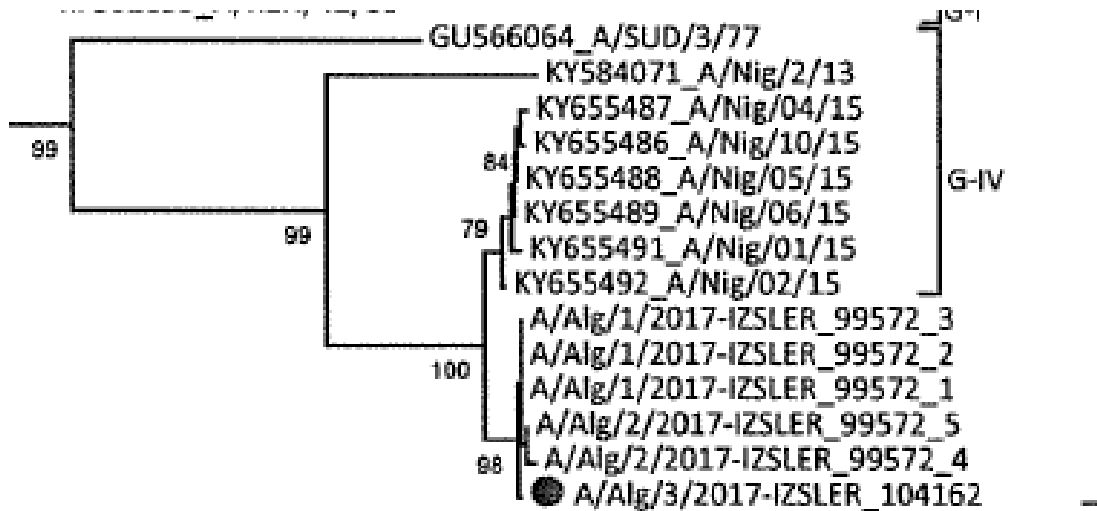


In yellow: two outbreak detected with FMD Type A both notified on 06/04/2017

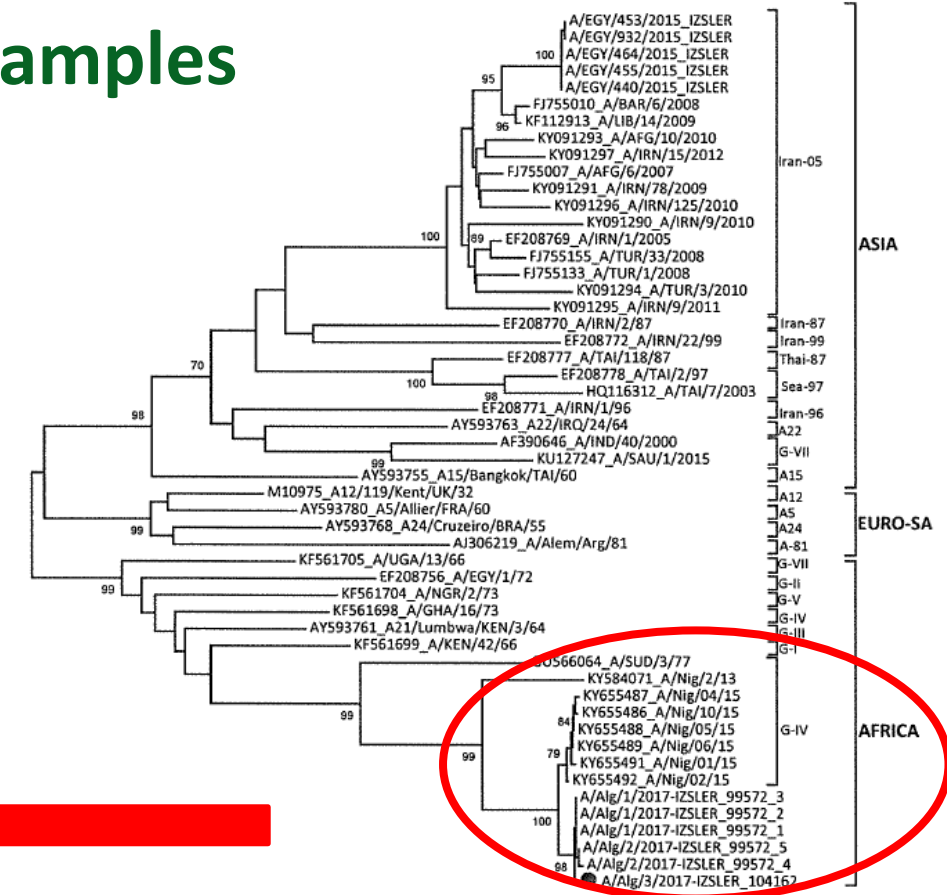


Results FMDV detection and serotyping samples by IZSLER

s Included -----1st+2nd+3rd+Non-Coding
bootstrap values of 70% and above are shown at each node.



AFRICA



ASIA

EURO-SA

AFRICA

0.05

These results reported samples as negative for SAT1, and positive for **serotype A** genotype IV at the Istituto Zooprofilattico Sperimentale of Brescia



**We thank the laboratory for their
speed and precision in the results
transmitted**



**ISTITUTO ZOOPROFILATTICO SPERIMENTALE
DELLA LOMBARDIA E DELL'EMILIA ROMAGNA**

Via Bianchi 9 - 25124 Brescia

CENTRO NAZIONALE DI REFERENZA PER LE MALATTIE VESCICOLARI (CERVES)
Tel. 030-2290310 Fax 030-2290369



**OIE/ FAO REFERENCE LABORATORY FOR FOOT-AND-MOUTH DISEASE
AND FOR SWINE VESICULAR DISEASE**



Brescia, 13/04/2017

FMD Detection and serotyping report

FMD Genotyping report

FMD Genotyping report

FMD Detection and serotyping report

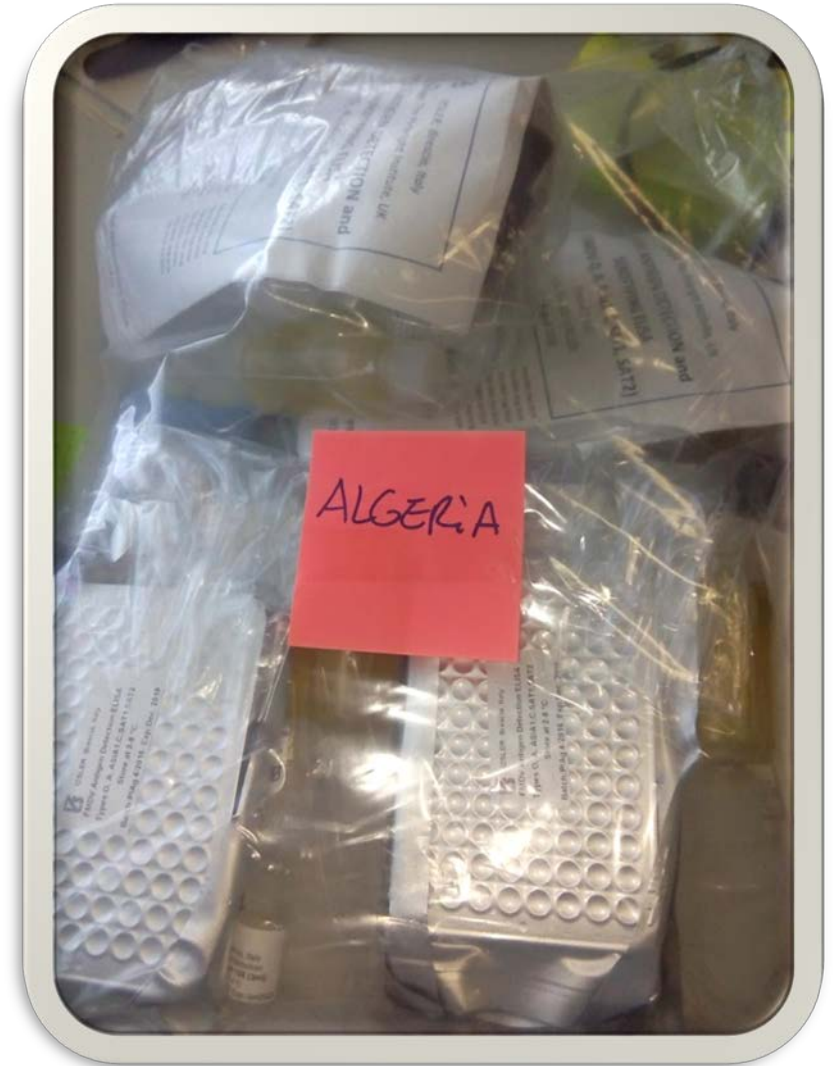
Brescia, 13/04/2017



We thank EuFMD



Knowledge Bank, Job Aids





- **Actually these are the outbreak registered in the country, but the risk is :**
- **The unknown origin of the incursion;**
 - **The unclear situation in the neighboring countries;**
 - **Lack of the vaccine in Algeria.**





Conclusion

- **The Measures are being applied in order to control this new serotype (A) in the country since an effective vaccines for this serotype is not available in the country yet, while a vaccination campaign against serotype O is already ongoing.**
- **Launch of an emergency procedure for the acquisition of vaccine;**
- **Algeria needs to access the vaccine as soon as possible to control the disease.**



Food and Agriculture
Organization of the
United Nations



European
Commission



Thank you



Food and Agriculture
Organization of the
United Nations



European
Commission



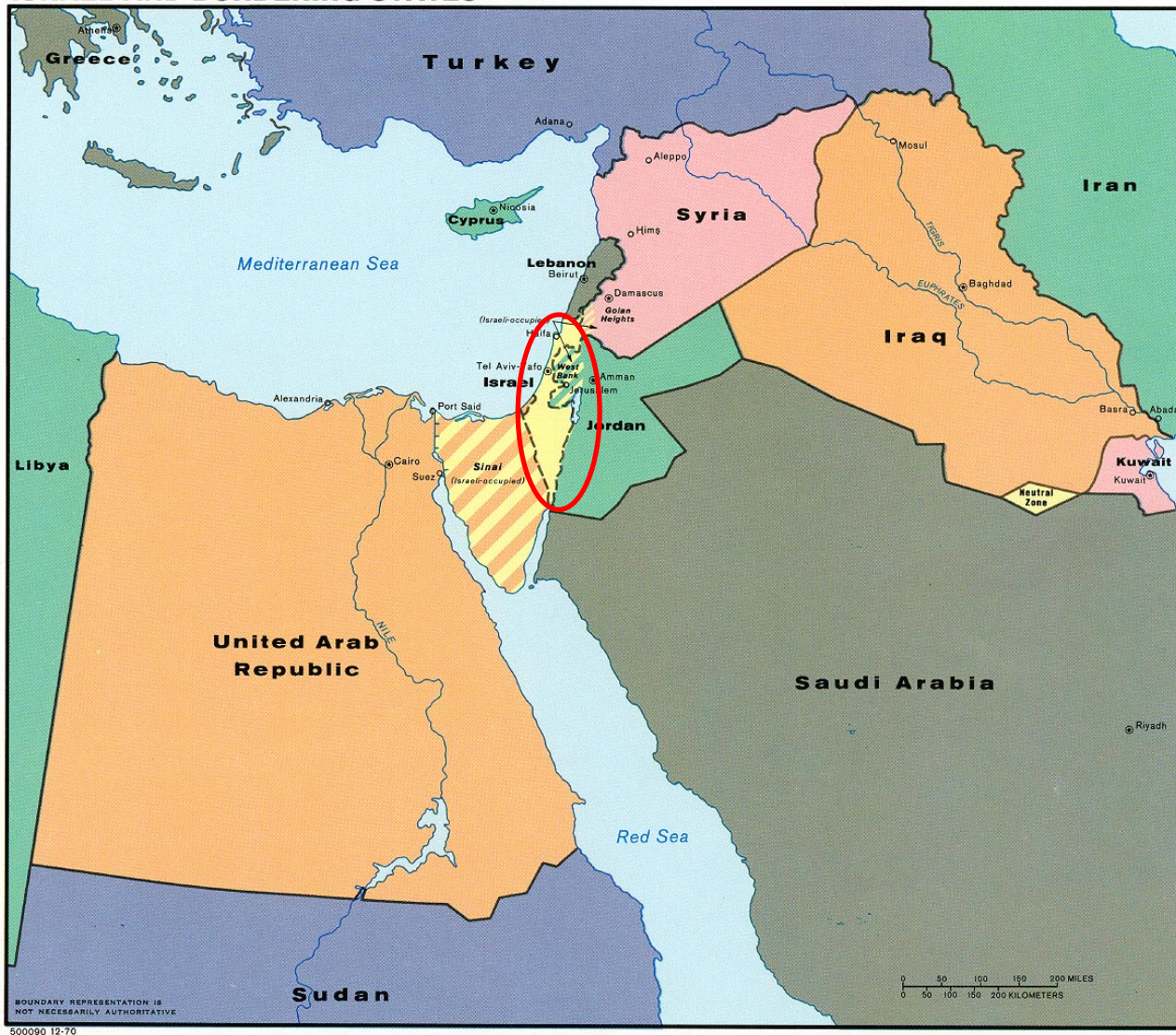
42nd General Session of the EuFMD

Foot & Mouth Disease in Israel 2017

Tamir Goshen
Israeli Veterinary Field Services Director



ISRAEL AND BORDERING STATES



500090 12-70

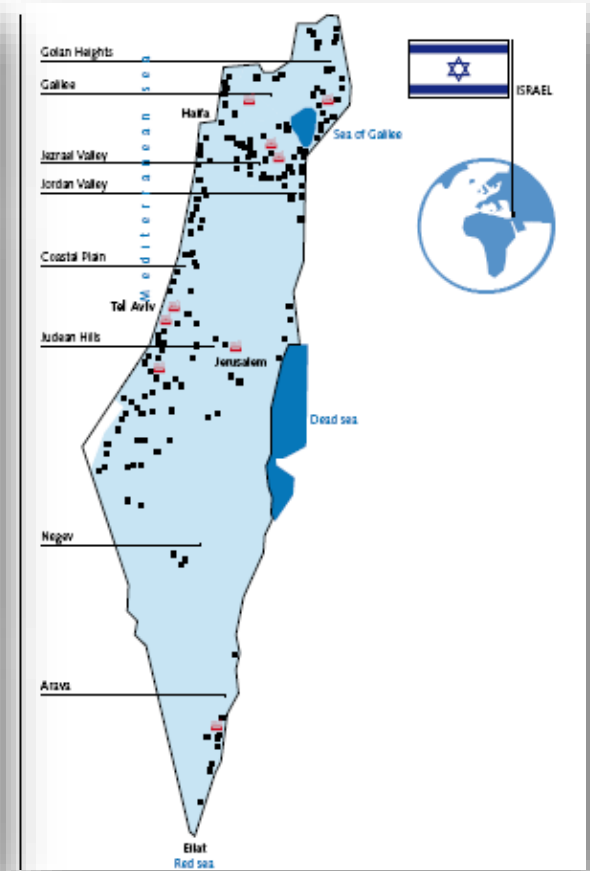


Susceptible Livestock Population

- Dairy Cattle – 200,000 (cows + replacement)
- Beef- Pasture – 50,000 (cows)
- Beef – Feedlot – 300,000 (steers)
- Sheep – 500,000 (ewes)
- Goats – 100,000 (does)
- Pigs - 20,000 (sows)

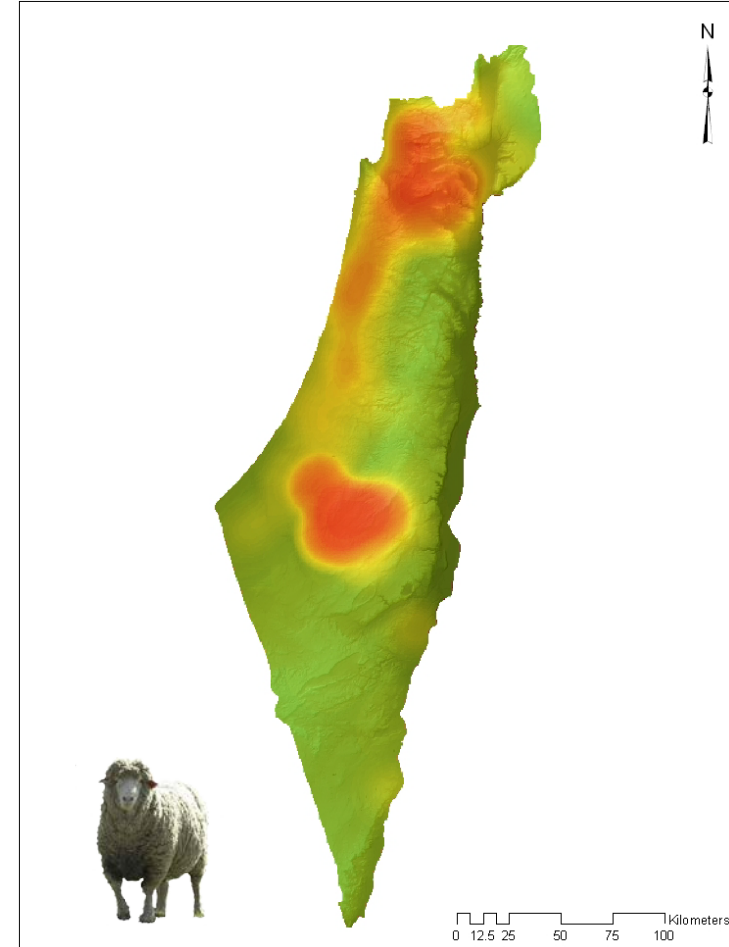
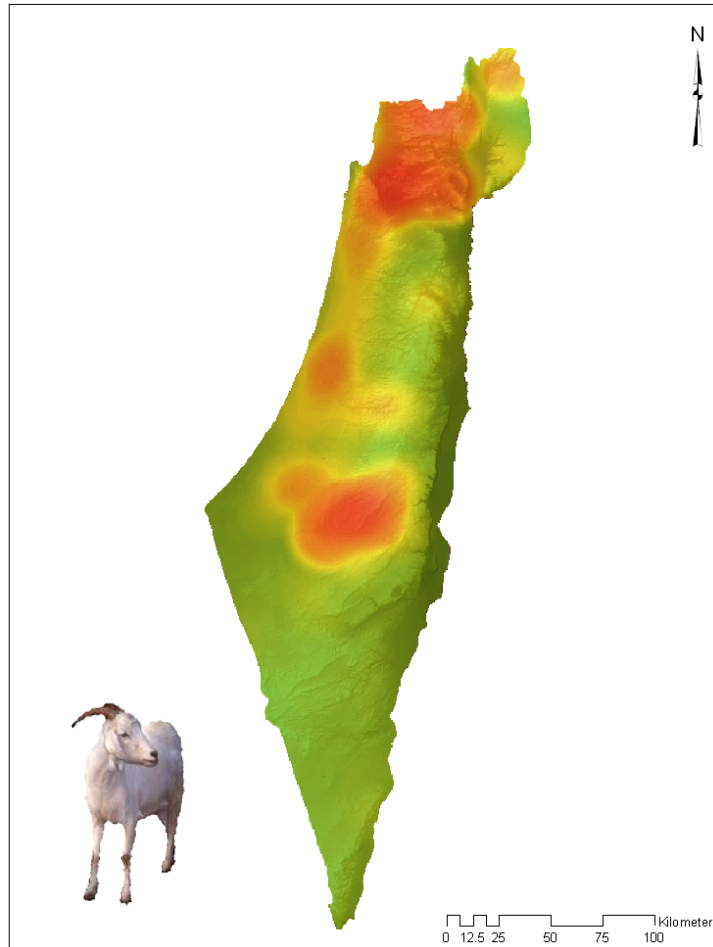


Livestock densities





Livestock densities





FMD Control

- Vaccine strains (Pool 3):
 - Type **O** contains antigens: Manisa, Geshur 85 (O4625), O-3039, O Panasia 2.
 - Type **A** contains antigens: A- 4165 + A Iran 2005.
 - Type **Asia1** contains antigen: Asia 1 Shamir. (cattle only)



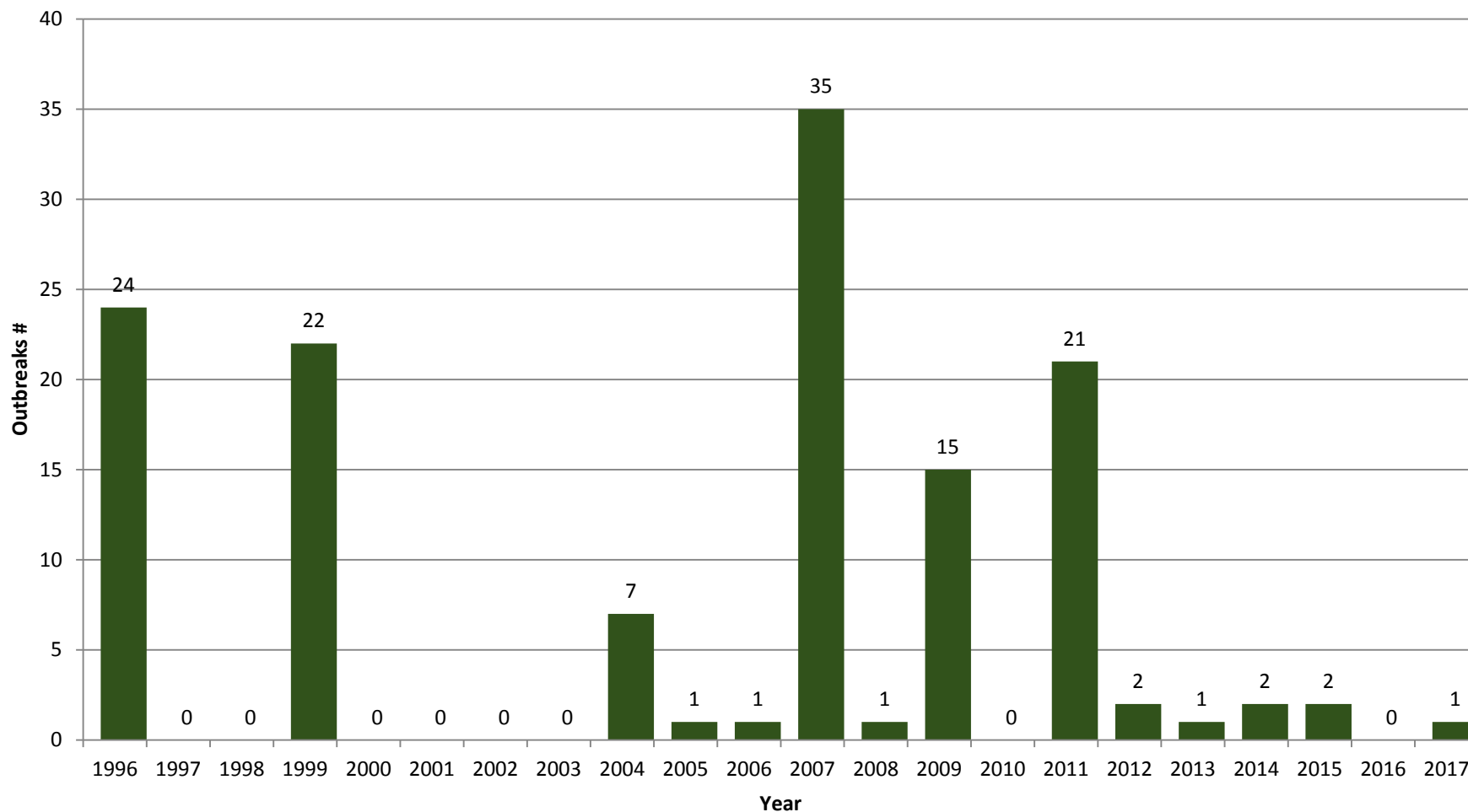
FMD control 2014-6

Animal	annual vaccination (average)
Cattle	707,158
Sheep & Goats	953,415

- Over all ~ 98.5% of registered herd were vaccinated in 2016.
- FMD vaccination is mandatory and done by the IVS.

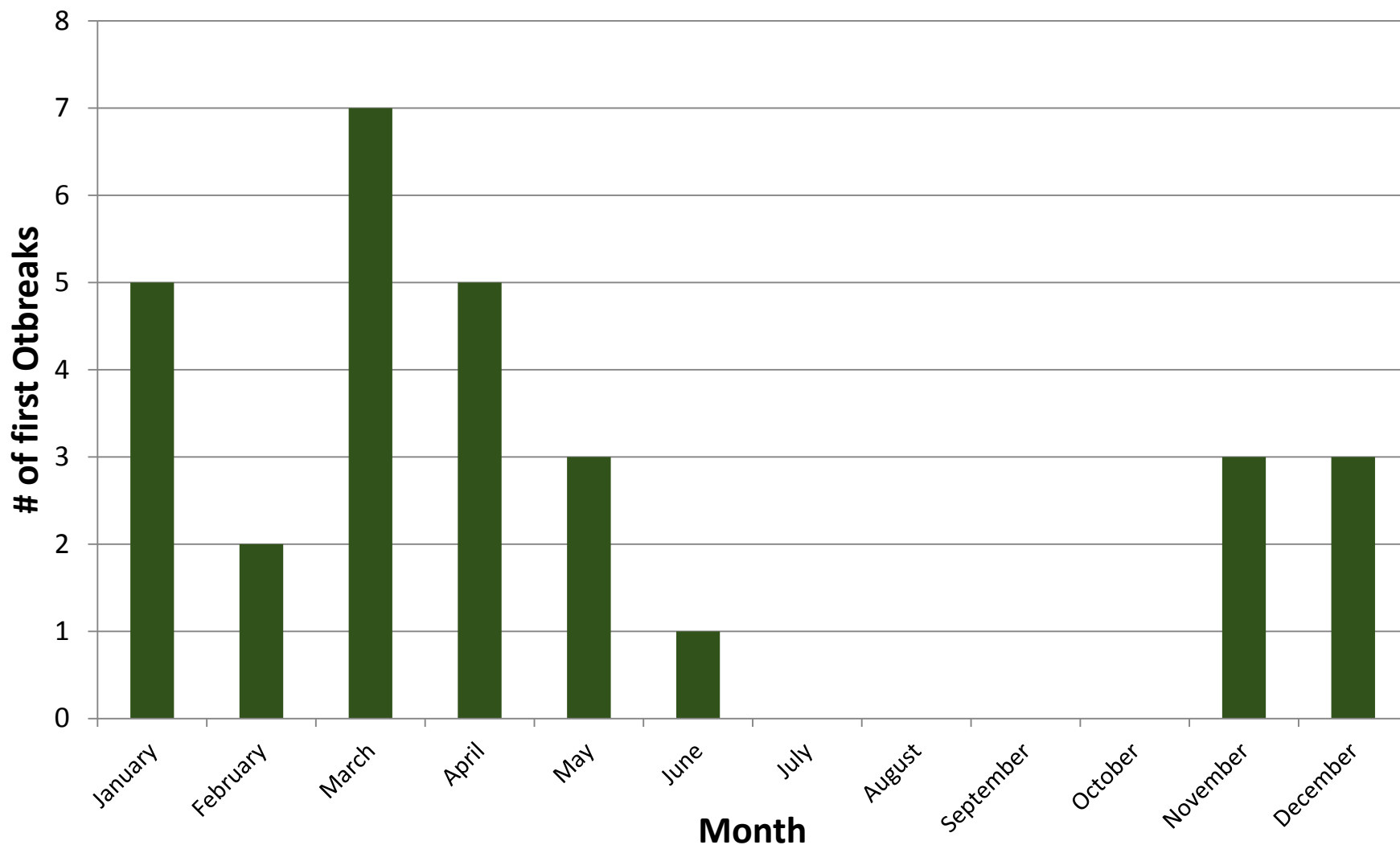


Outbreaks (1996-17)



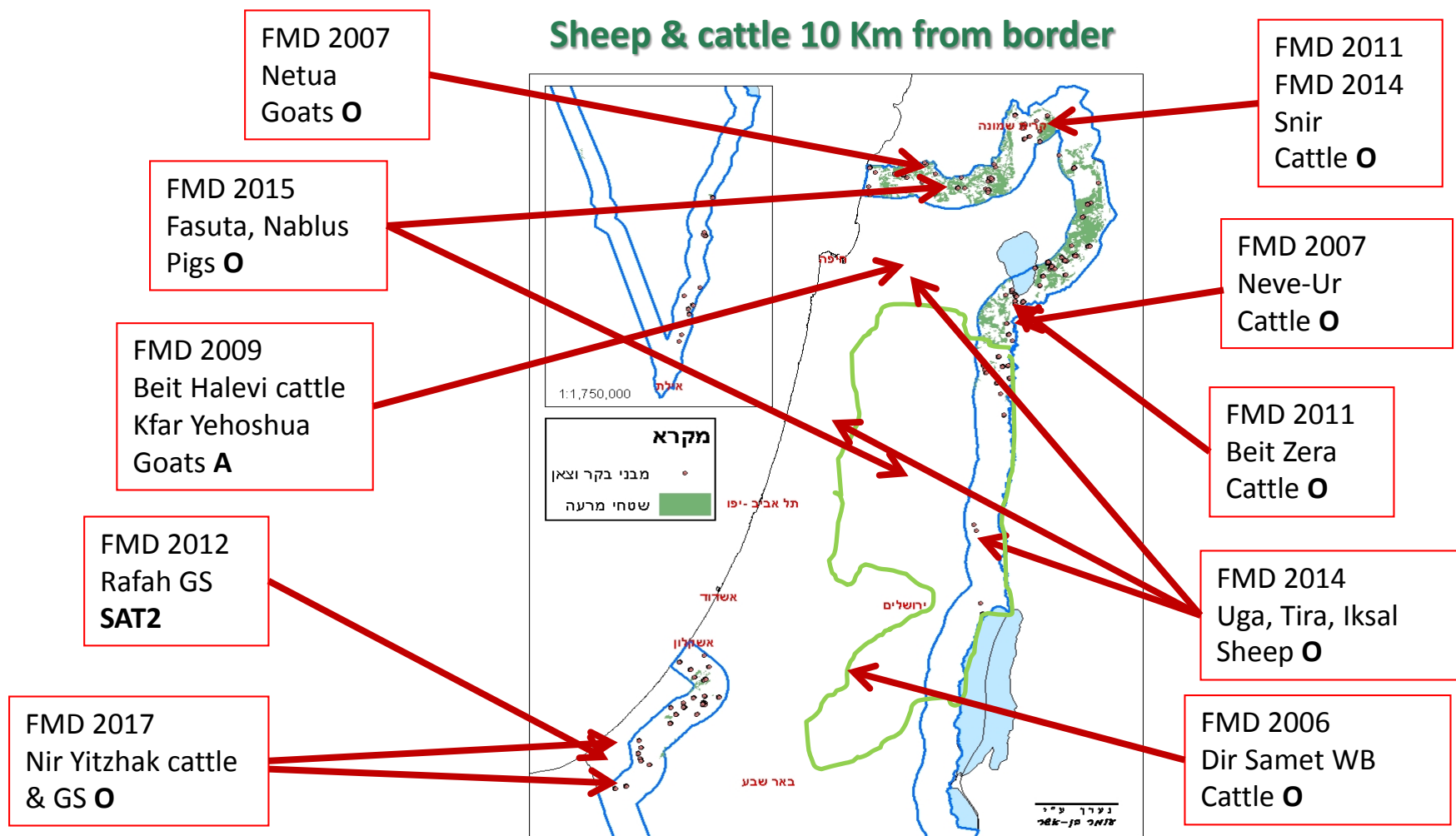


Outbreak by Index case Month (1974-2017)





Historical Israeli FMD Outbreaks





FMD Outbreak in Dairy Farm – Nir Yitzhak

- First major outbreak in a dairy farm in years.
- Israeli farms are vaccinated annually from October, young stock is vaccinated 3-5 m with booster 3 m later.

Nir Yitzhak:

- 775 cows & heifers.
- The cows were vaccinated 1 year beafore.
- Replacement heifers – at 2-4 m and boosted 3 m later.



Outbreak area

Farms in 10 km radius:

Holit – dairy farm.

Nir Oz- Cattle Feedlot.

Magen – Replacement dairy
heifers .

Nave – sheep farm.

Pri Gan - sheep farm.

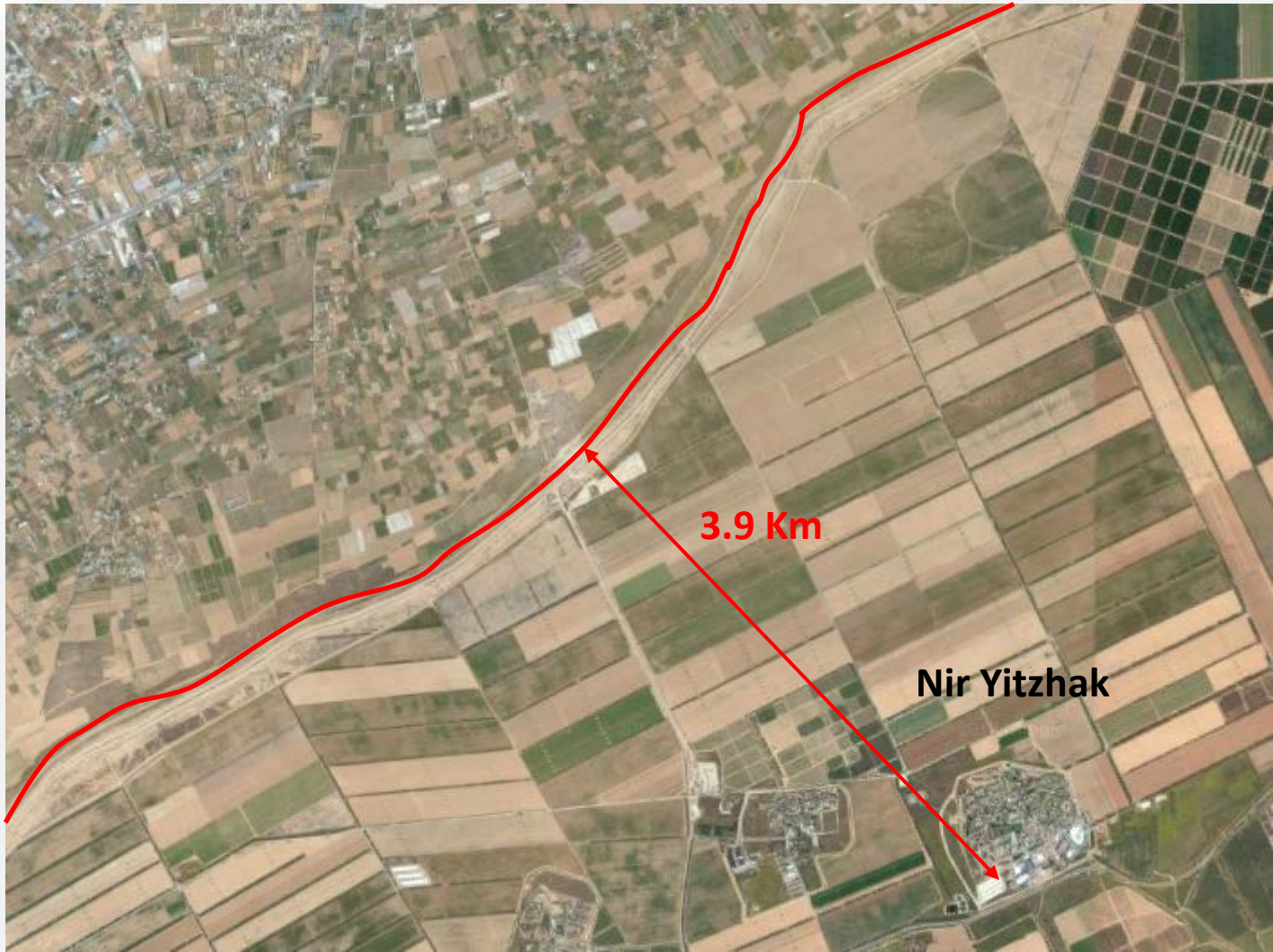
Talmei Yosef - sheep farm.

Eshcolot - sheep farm.





Nir Yitzhak





Nir Yitzhak Dairy farm





Nir Yitzhak Dairy farm





Possible Incursion

- Air born.
- Nearby road (232).
- IDF border patrols.
- Other – wild animals; animal traders ect.

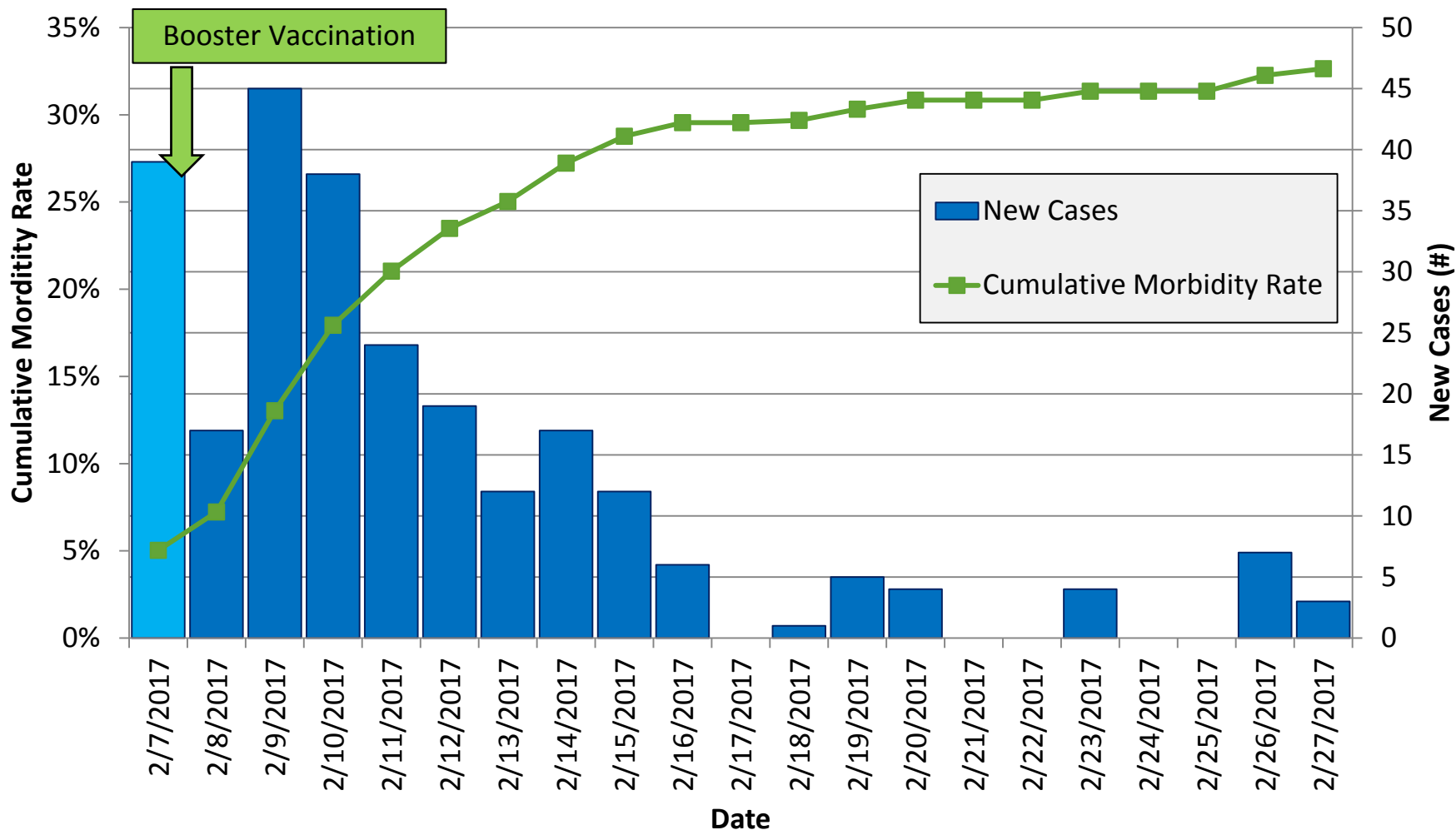


Morbidity by group

Group	Age	# animals	# cases	Morbidity Rate
Hutches	0 – 2 m	41	4	9.8%
weaning	2 – 4 m	40	20	50%
Replacement	4 – 18 m	80	6	7.5%
Pregnant Heifers	18 m +	103	41	39.8%
1 st Calf Heifers	2 years +	96	59	61.5%
2 nd Lactation	3 years +	93	31	33.3%
3 rd + lactation (B)	4 years +	90	34	37.8%
3 rd + lactation (C)	4 years +	103	28	27.2%
Low producers (D)	mixed	44	18	40.9%
Dry cows	3 years +	45	1	2.2%
Close up	3 years +	40	11	27.5%
Overall		775	253	32.6%



Epidemiological Curve





Mortality

- 8 cows & 1 pregnant heifer.
- Deaths due to secondary infections, mainly mastitis and septic arthritis.
- No mortality in young calves or heifers.





Indirect losses

- Milk production loss.
- Inability to sell cows and bull calves.
- Crowding.
- Diseased cows that healed and did not return to milk (w/o secondary infections; ~ 10 cows)

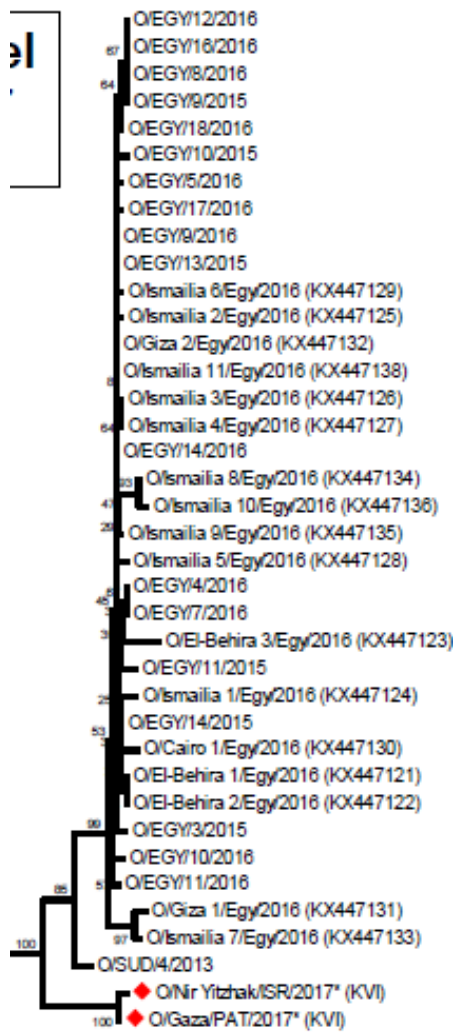


KVI Virus typing

Outbreak Location	ELISA	RT-PCR	Vp1 Sequencing	Vaccine matching
Nir Yitzhak	Serotype O	Serotype O	Serotype O O/EA -3 Topotype ~90% identity to recent isolates in Egypt and Sudan	Unavailable
Gaza Strip	Serotype O	Serotype O	Serotype O O/EA -3 Topotype ~90% identity to recent isolates in Egypt and Sudan	Unavailable



Pirbright genotyping





Pirbright genotyping

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/Gaza/PAT/2017* (KVI)	PAT17-AA	538	537	0	99.81	0.19	EA-3	unnamed
2	O/SUD/4/2013	SUD13-04	564	546	0	96.81	3.19	EA-3	unnamed
3	O/EGY/10/2016	EGY16-10	564	538	0	95.39	4.61	EA-3	unnamed
4	O/EGY/13/2015	EGY15-13	564	538	0	95.39	4.61	EA-3	unnamed
5	O/EGY/14/2016	EGY16-14	564	538	0	95.39	4.61	EA-3	unnamed
6	O/EGY/9/2016	EGY16-09	564	538	0	95.39	4.61	EA-3	unnamed
7	O/Giza 2/Egy/2016 (KX447132)	EGY16-AL	564	538	0	95.39	4.61	EA-3	unnamed
8	O/Ismailia 11/Egy/2016 (KX447138)	EGY16-AR	564	538	0	95.39	4.61	EA-3	unnamed
9	O/EGY/11/2016	EGY16-11	564	537	0	95.21	4.79	EA-3	unnamed
10	O/EGY/14/2015	EGY15-14	564	537	0	95.21	4.79	EA-3	unnamed



Conclusions

- Prioritization of Vaccination order (October-November):
 - 10 Km from border.
 - 10 km from exporting dairy factories.
- Exportation of cattle vaccinated twice to the GS.
- Vaccine efficacy - poor matching but efficient vaccinator?



Collaboration with the PA

- Periodical meetings and coordination.
- Information exchange.
- Diagnosis in the KVI.
- FAO visits and workshops.



Future challenges

- Continued collaboration with the PA in the current format:
 - Joined workshops.
 - Active surveillance.
- Local, regional importance.
- Importance to the EU.



Thanks

Acknowledgment

- Dr. N. Galon.
- Dr. Michel Bellaiche
- Prof. Eyal Klement
- Dr. Boris Gelman
- KVI & VS workers
- The FAO / EuFMD.





DISEASE SITUATION IN TURKEY

42nd General Session of EuFMD
20-21th March 2017, Rome, Italy

A.Naci BULUT

Şap Institute, Ankara, Turkey

On behalf of

Dr. Nihat Pakdil, CVO

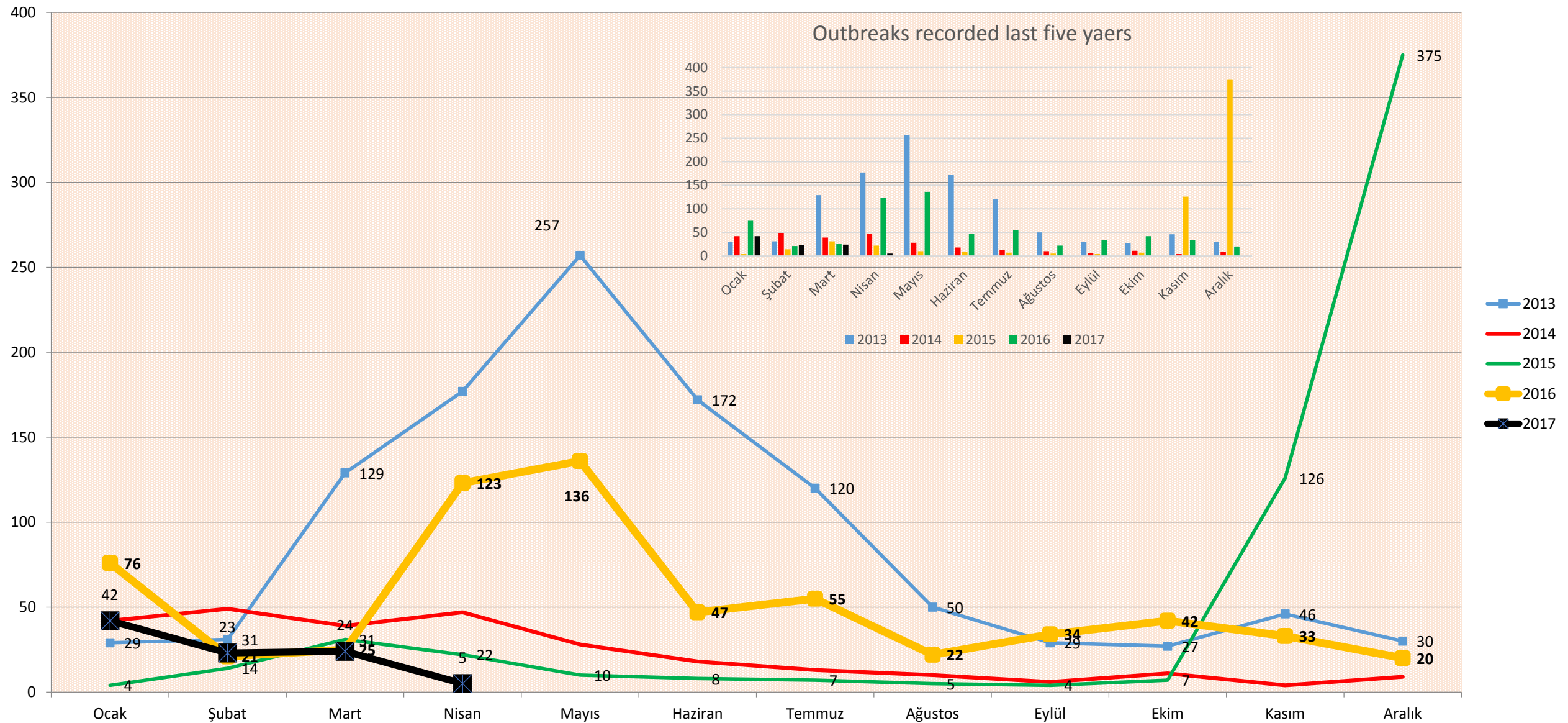
Deputy Secretary of Ministry

The Ministry of Food, Agriculture and Livestock (MoFAL)

CIRCULATING STRAIN

- FMD is endemic in Anatolia region in Turkey
- Current Circulating virus strains:
 - Serotype O (O PanAsiaII/Qom),
 - A (Asia/GVII)* and A (Asia/GVII)/Sam16
 - (Asia1 has been not recorded since July 2015)
 - Latest circulated one was Asia-1 (Asia1/SINDH08)
- Thrace region has been free of FMD with vaccination since May 2010.

Outbreaks for Last Five Years (till 17th April of 2017)



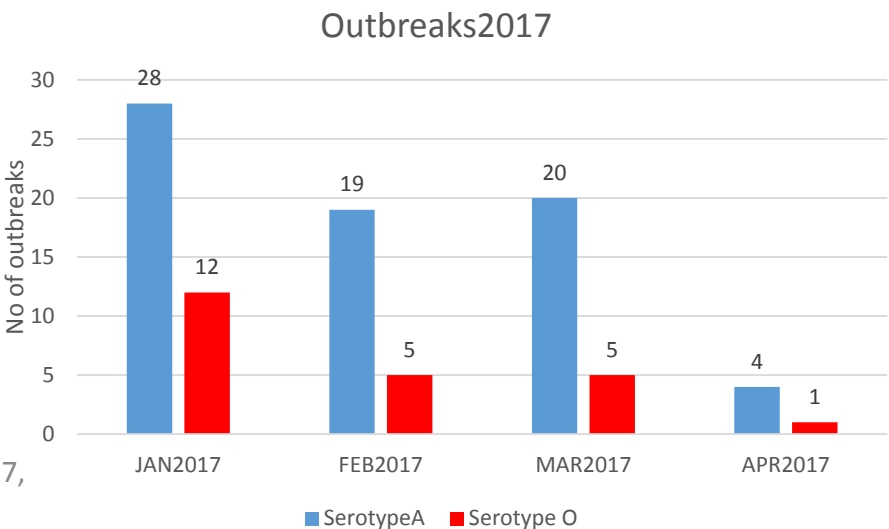
CURRENT TREND OF FMD SPREAD DINAMICS

- There has been recorded currently decline number of outbreaks
- Mainly outbreaks caused due to FMDV serotype A
- Although there has been detected a new genetic sub group of GVII, SAM16, and identified antigenically distinct from vaccine strain of GVII, there has not been recorded any a new outbreak wave like GVII
- Affected animals in current outbreaks are limited in small portion of susceptible population.
- Therefore, it has been detected very low incidence in all outbreaks and also affected farms

Map distribution for outbreaks in 2017

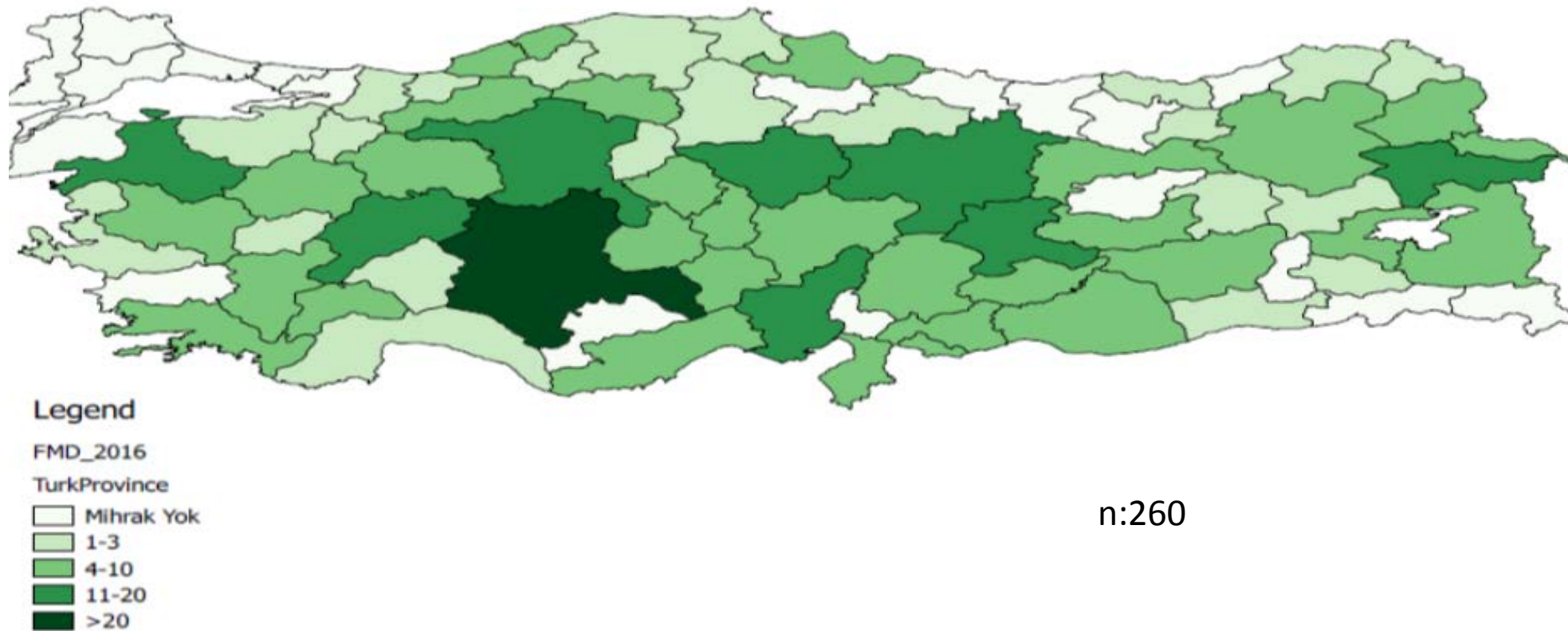
▲ January_O
▲ January_A
★ February_O
★ February_A
● March_O
● March_A
n: O;22/A;67
Total(n):89

42nd General Session of EuFMD 20-21th March 2017,
Rome,Italy



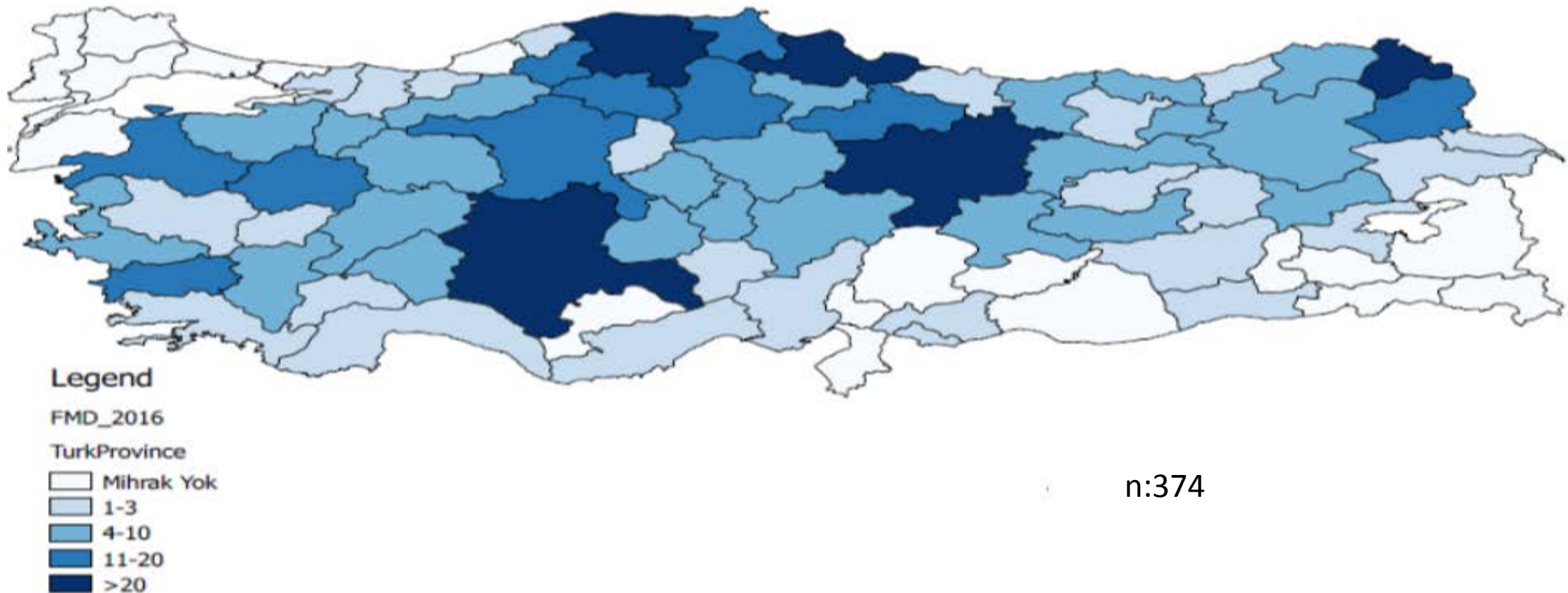
Map distribution of serotype O outbreaks in 2016

Serotype O Outbreaks in 2016



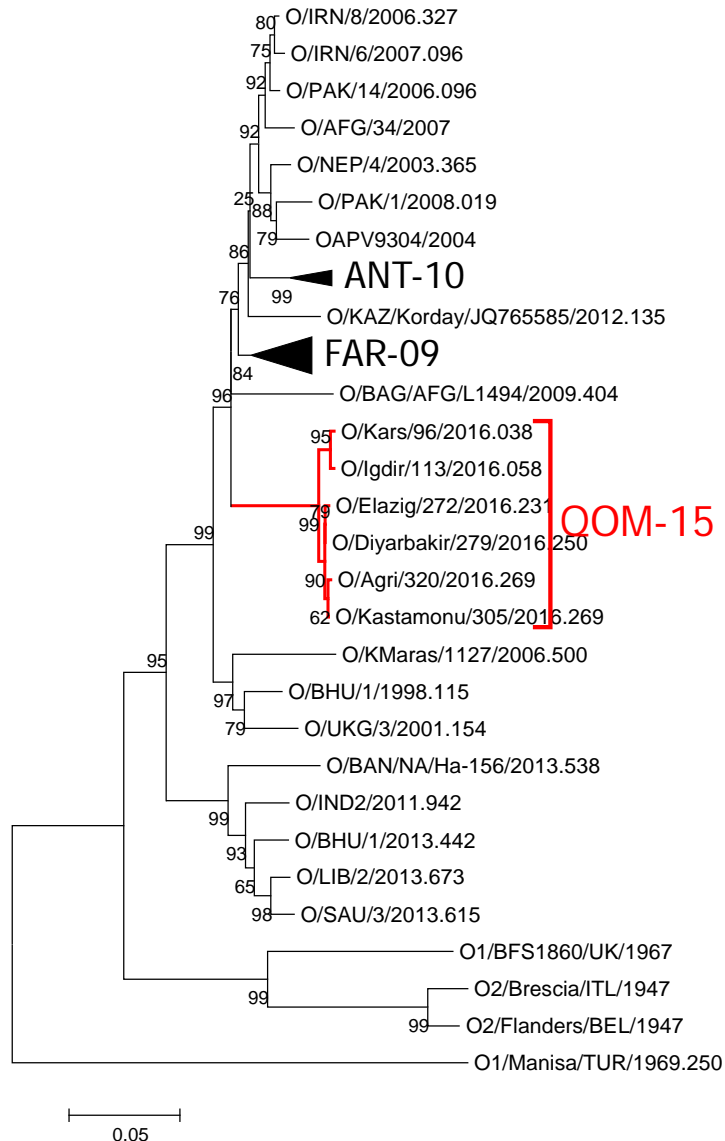
Map distribution of serotype A outbreaks in 2016

Serotype Outbreaks in 2016



Evaluation spread Dynamics and monitoring vaccine suitability by Genetic Analysis

Representative phylogenetic tree: O



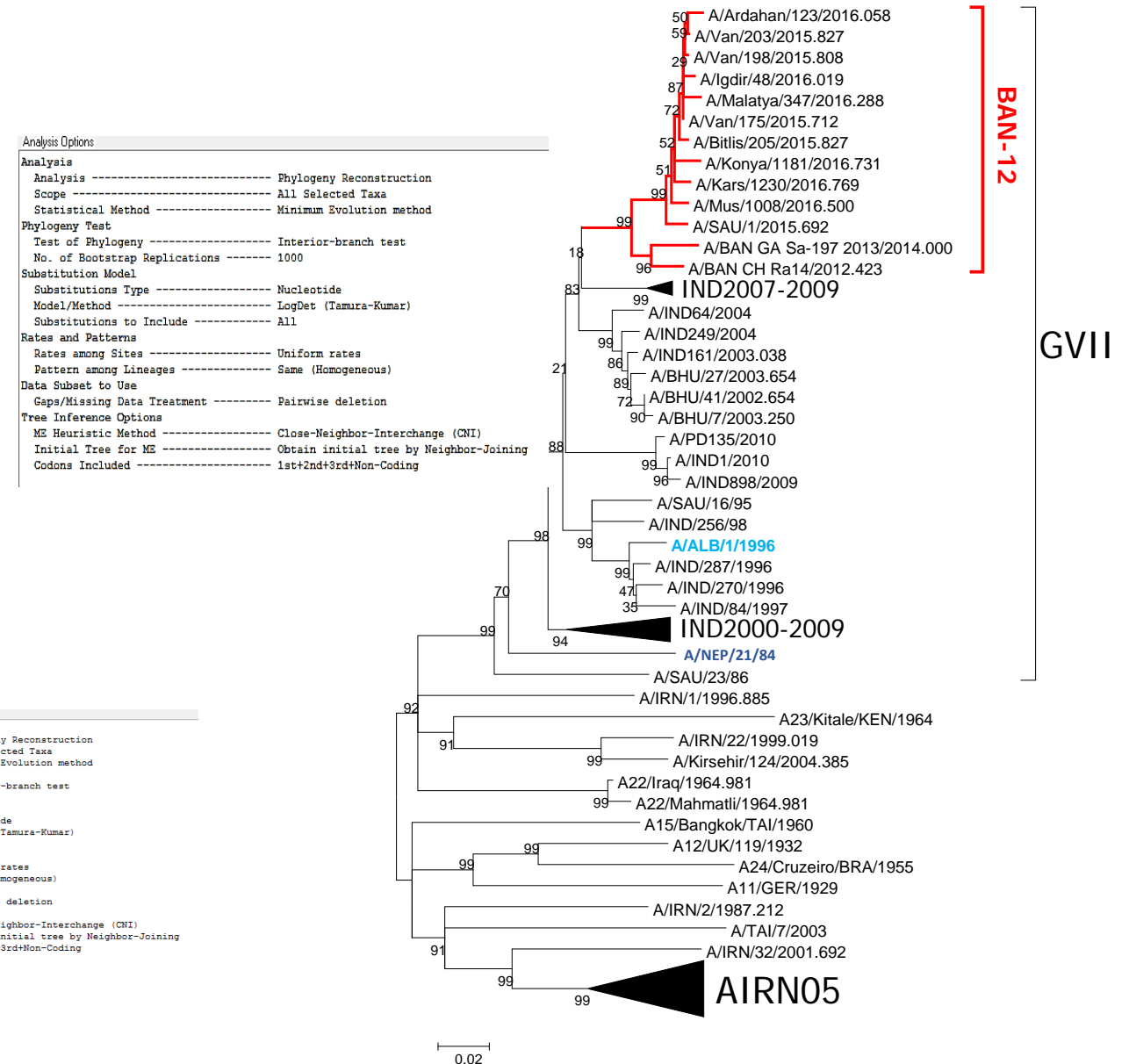
PanAsia-2

PanAsia-1

Analysis Options

Analysis	Phylogeny Reconstruction
Scope	All Selected Taxa
Statistical Method	Minimum Evolution method
Phylogeny Test	
Test of Phylogeny	Interior-branch test
No. of Bootstrap Replications	1000
Substitution Model	
Substitutions Type	Nucleotide
Model/Method	LogDet (Tamura-Kumar)
Substitutions to Include	All
Rates and Patterns	
Rates among Sites	Uniform rates
Pattern among Lineages	Same (Homogeneous)
Data Subset to Use	
Gaps/Missing Data Treatment	Pairwise deletion
Tree Inference Options	
ME Heuristic Method	Close-Neighbor-Interchange (CNI)
Initial Tree for ME	Obtain initial tree by Neighbor-Joining
Codons Included	1st+2nd+3rd+Non-Coding

Representative phylogenetic tree: A (GVII^{BAN-12})



Summary of vaccine matching (antigenic characterisation by VNT):

	Vaccine strain		
	As1 Shamir	Asia1 TUR11	Asia1 TUR 14
As1 Sindh 08 (2015 isolate)	N	N	M

	Vaccine strain		
	O1 Manisa	OTUR07	OTUR14
O QOM-(2015 isolate)	N	M	N
O QOM-(2015 isolate)	N	M	N

	Vaccine strain
	GVII
A05 (2006 isolate)	N
A05 (SIS10 / 2011 isolate)	N
A05 (SIS10 / 2015 isolate)	N
GVII (BAN-12 / 2016 isolate)	M

New Approach on National RBSP

National RBSP has been updated by new regionalization approach

GOAL OF THE STRATEGY

- To contribute to the development of the livestock sector by achieving OIE status of FMD free with vaccination by 2025
 - By regional progressive disease control approach, the strategy is consist of 30 component objectives

ACTIVITIES AND TACTICS

- To reduce/eliminate risk and gaps for each identified risk and gaps:
 - Initiated implementing of control activities



TURKEY -
RISK-BASED STRATEGIC PLAN
FOR
CONTROL OF FOOT-AND-MOUTH DISEASE

0001/1401/2014-2017



RISK BASED CONTROL PROGRAM FOR WEST ANATOLIA

❑ **GOAL:** Reach PCP Stage 4 in 2019; and OIE FMD Free Status with vaccination in 2021

❑ ***MAIN COMPONENTS OF CONTROL PROGRAM:***

- ❑ Continuing vaccination by risk assessment approach
 - ❑ Including booster vaccination for primo vaccinators
- ❑ Risk based surveillance program
- ❑ Monitoring movement: vaccination requirement (2X/6 m)/Check point
- ❑ Regulation of animal movement from the other regions compliance with OIE Terrestrial Code: Quar./NSP testing ect.
- ❑ Effective outbreak management/Biosecurity
- ❑ **Stamping out for DC**
- ❑ Enhance awareness for stakeholders
- ❑ Increasing technical capacity
- ❑ Effective monitoring and improvement of infrastructure

Accomplishment on RBSP

- *Central Epidemiology and Monitoring Unit (CEMU) actively started activities*
- Vaccination coverage improved; ranged with 93-99%
- Vaccination implemented based on risk assessment:
 - Preventive campaign vaccination :In Anatolia; twice a year for LR;_In Thrace: : Twice a year for LR/once for SR
 - Early Spring: population assured protection before releasing grazing time
 - Late Summer: population assured protection before Kurban festival
 - Ring Vaccination to response outbreak in Surveillance zone of outbreak
 - Targeting vaccination for identified “Hotspot»
 - Small ruminant vaccination where risk identified
 - Booster vaccination introduced in country wide
- Declining number of outbreaks with low incidence rate in per outbreak unit
- **Reconstructed TURKVET** with more functional and features
 - Animal Registration System
 - LR/SR registered into the system with ear-tag; initiated replacement of electronic ear-tag
 - Animal movement managed and monitored by the system
 - Regular movement report by province
 - Veterinary Information System (VIS)
 - Outbreak Management
 - Entering outbreak data all notifiable disease
 - Vaccination data
 - Sample Management System
- Improved outbreak management and biosecurity
- Animal movement control implemented with a new approach

Thank you very much for your attention!

Acknowledges

- Fuat Ozyörük
- The Şap Institute
- General Directorate for Food and Control (GDFC)

