



Foot and mouth disease situation and control strategies in Europe - the current situation

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Structure

- what do we mean by Europe?
- recent history and country status
- achieving and maintaining freedom
- addressing global threats
- EUFMD strategy
- regional long term action - Eastern Europe/West Eurasia



What is Europe?

FAO Regional Office for Europe – includes CIS

FAO Member Countries in Europe and Central Asia:

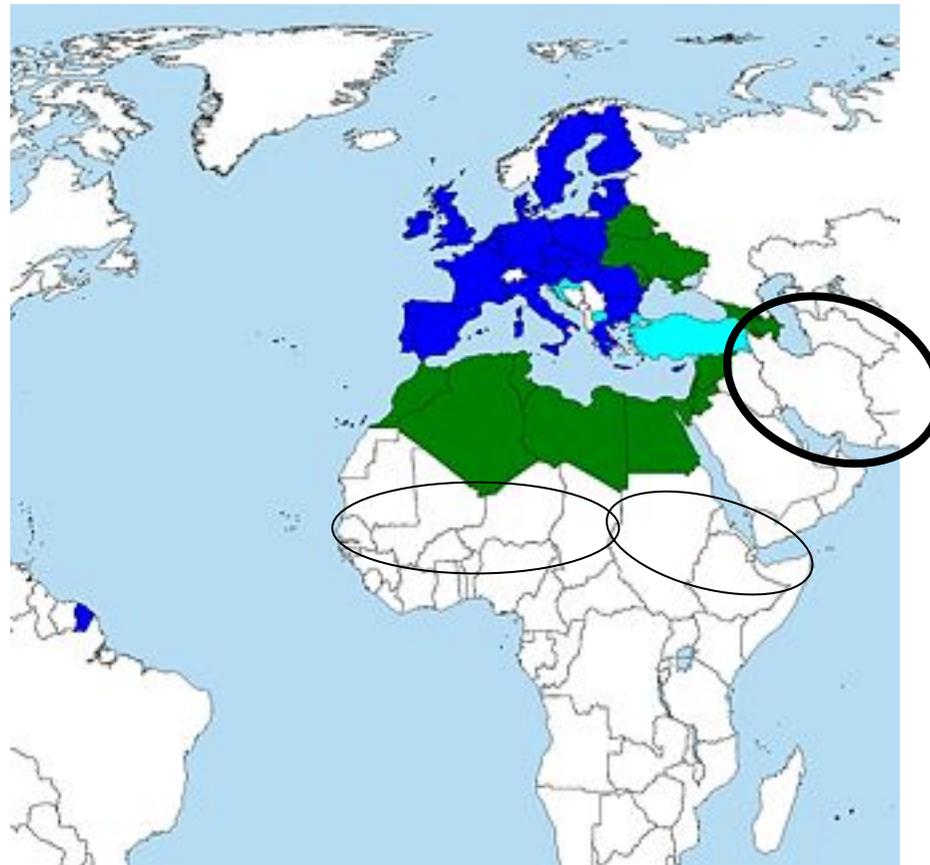
[Albania](#), [Andorra](#), [Armenia](#), [Austria](#), [Azerbaijan](#),
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[Belgium](#), [Bosnia and Herzegovina](#), [Bulgaria](#), [Croatia](#),
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[Slovakia](#), [Slovenia](#), [Spain](#), [Sweden](#), [Switzerland](#),
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[Uzbekistan](#),

Member Organization: European Community.





The European neighborhood

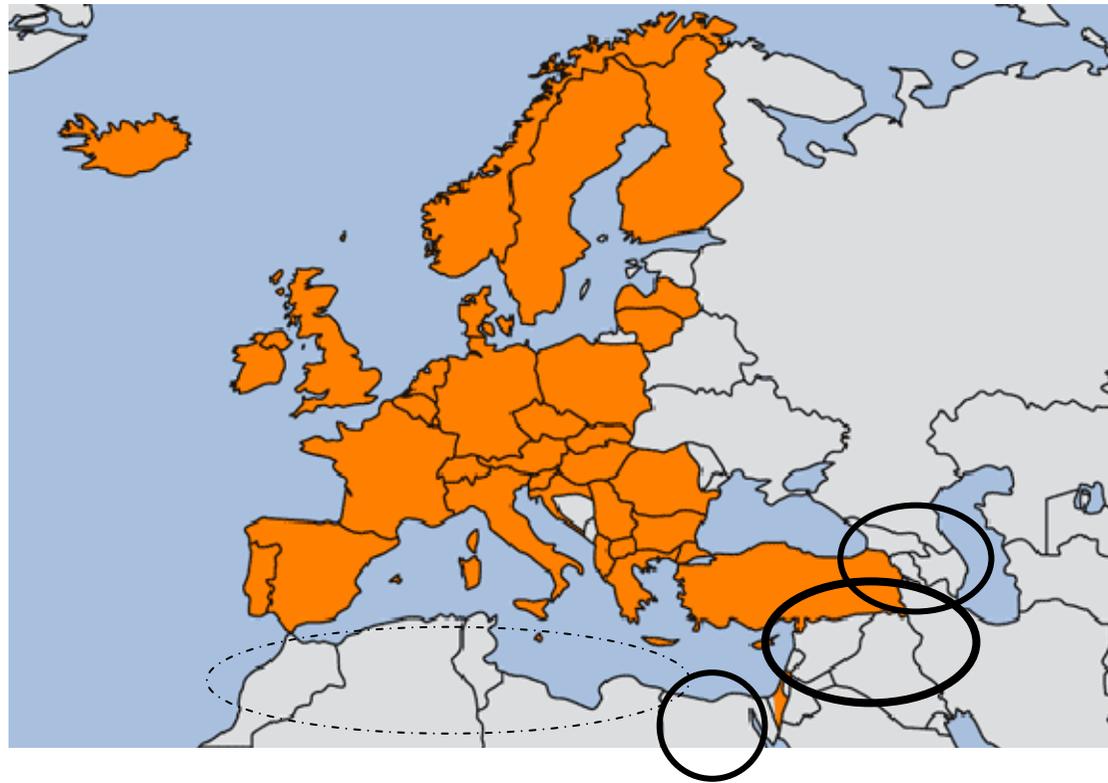


wider group of countries in political connection with the EU

and which interface with major FMDV reservoirs in West Eurasia and Africa



Current FMD status in the European neighborhood



EuFMD: 35 member states of which 26 EU+ 9 others

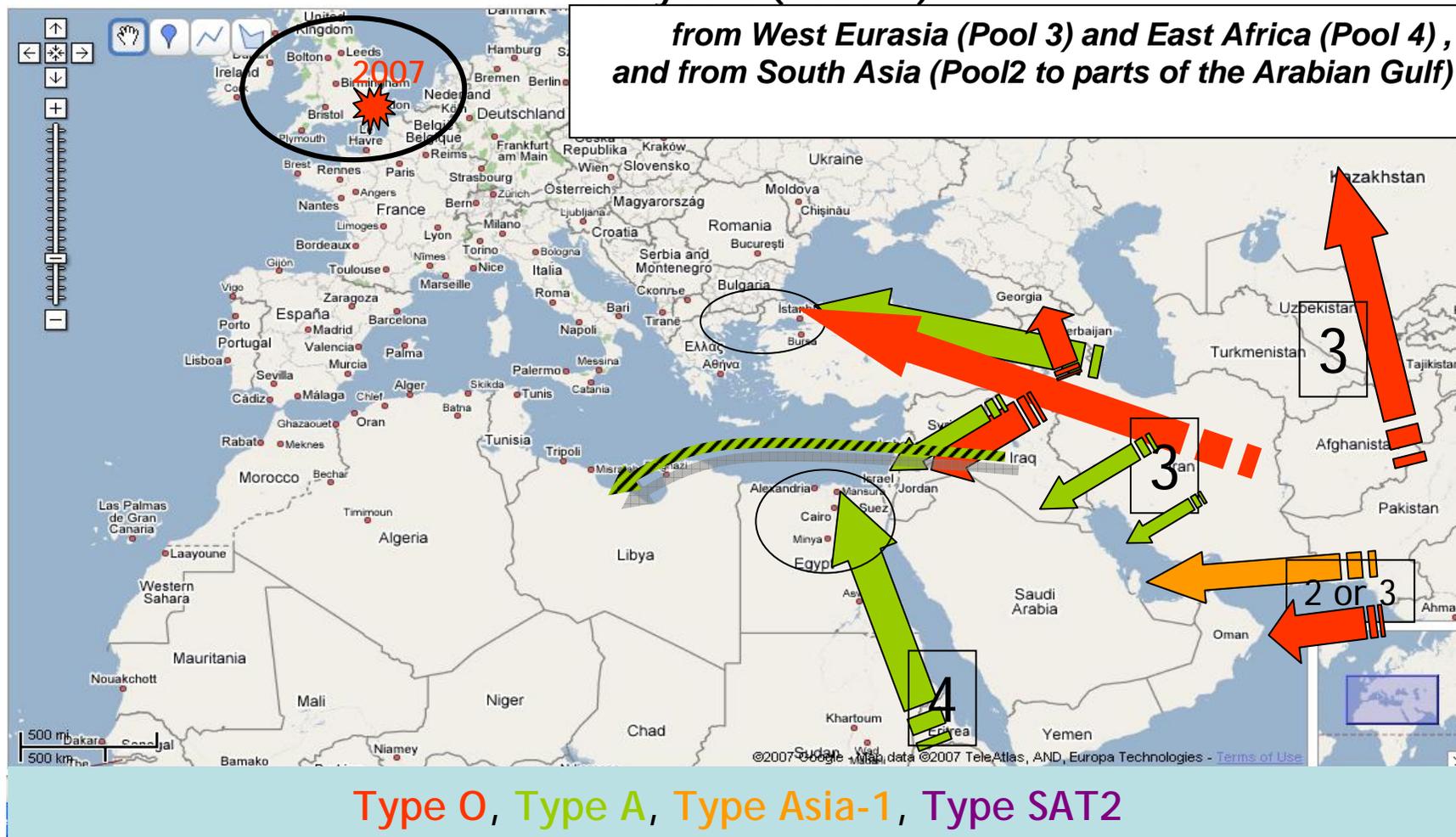
Two member states (Turkey, Israel)

+14 neighboring countries are NOT free of FMD



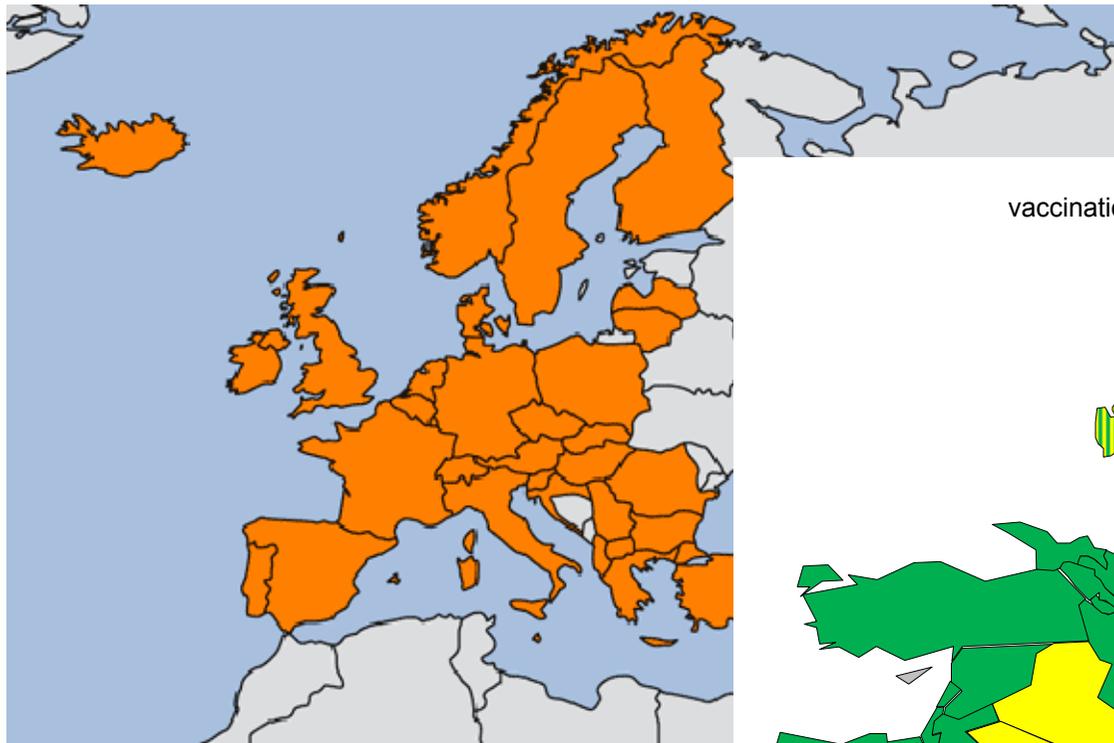
Current status: EU27: last outbreaks in 2007

but continued incursions of FMDV to the European neighborhood
Past 3 years (2006-9)





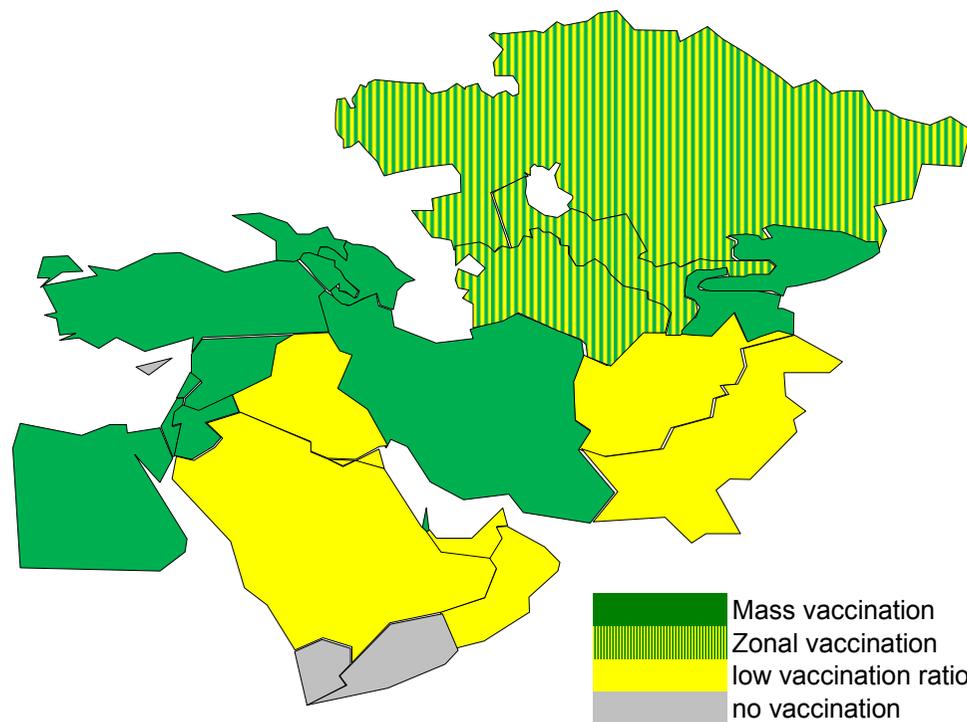
FMD Vaccination policy:



Non-vaccination – EU27+

Vaccination use – West EurAsia

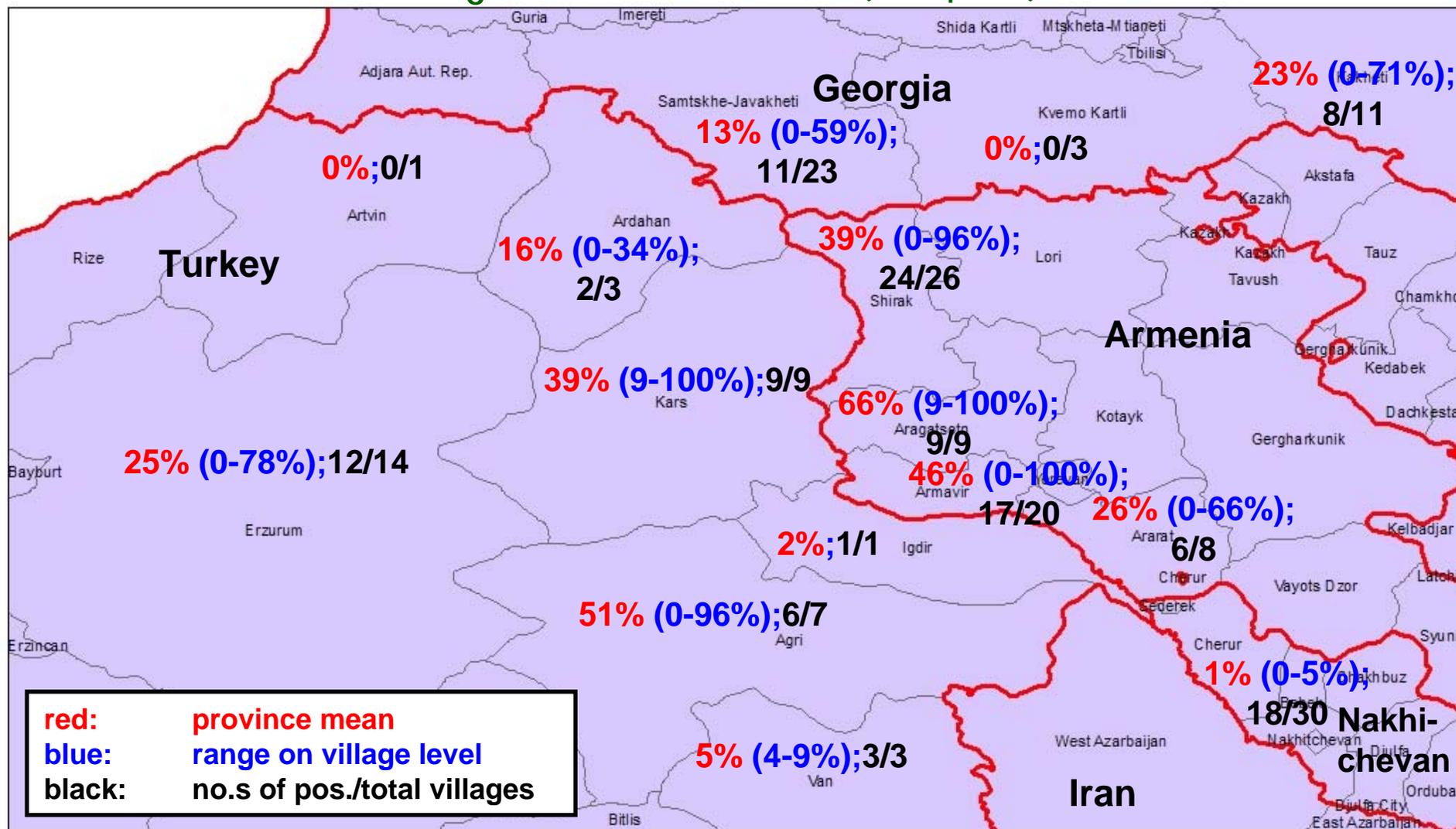
vaccination against FMD in 2008 in West Eurasia-Middle East





High incidence/common infection at our borders

Regional NSP situation (true prev.)





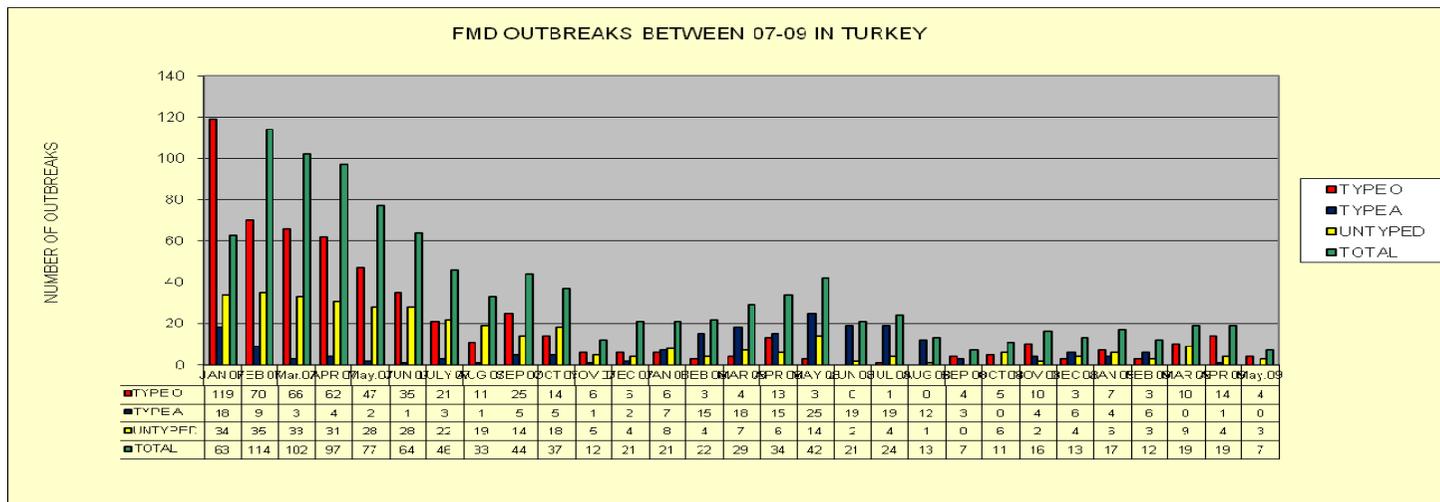
EUFMF

EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE

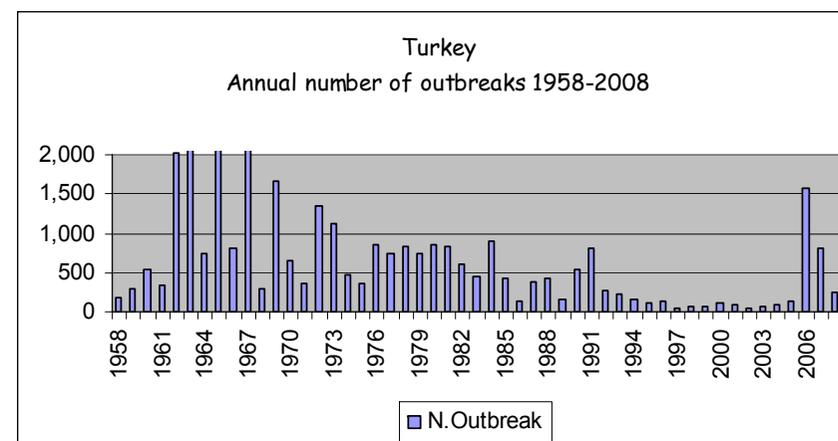
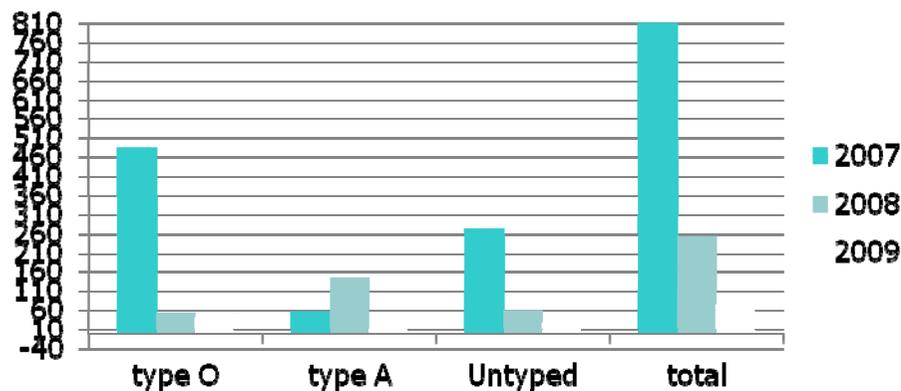




Turkey: FMD situation 2007-9

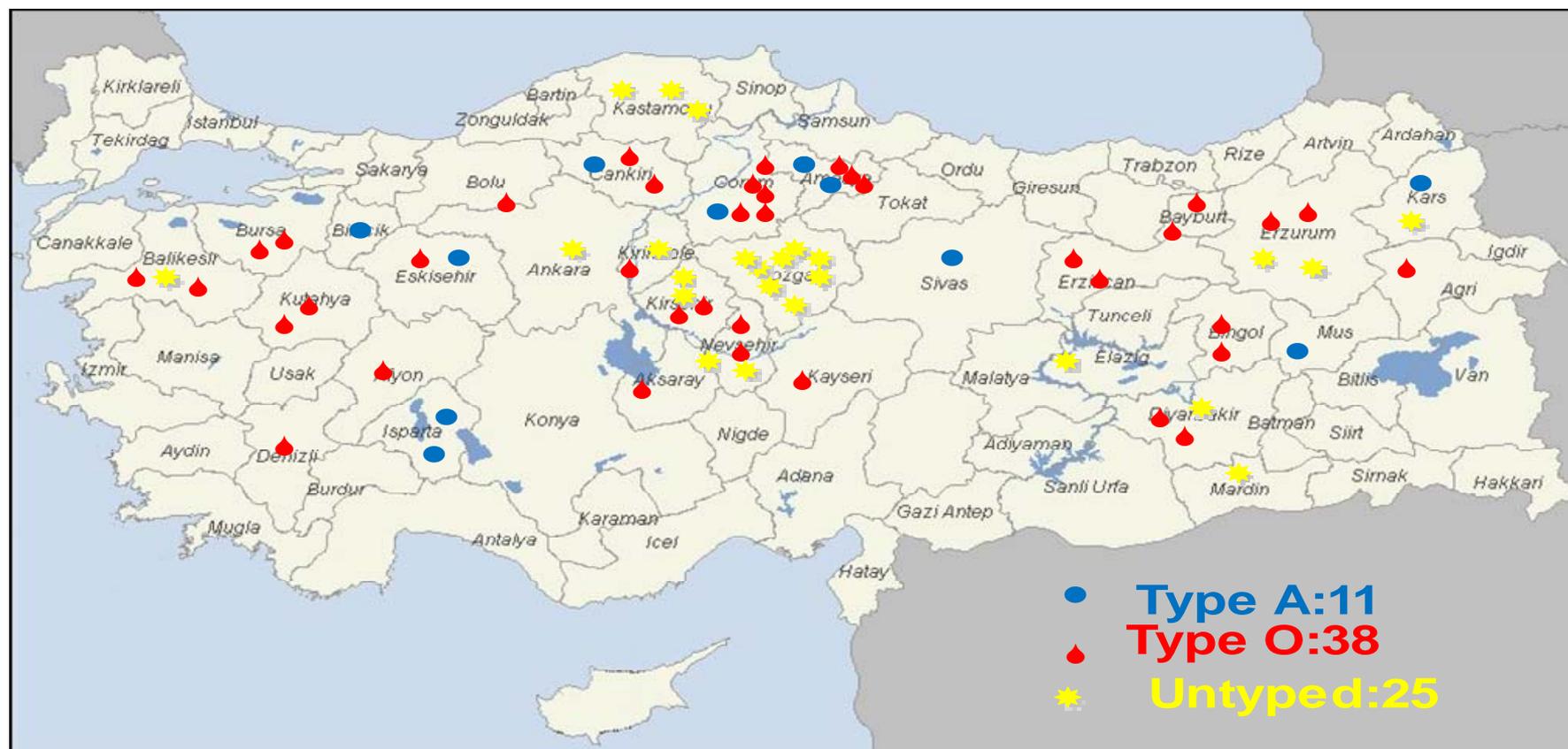


Sources:
EuFMD,
and FMD
Institute,
Ankara





Turkey: FMD outbreaks in 2009





Europe Aid Project for control of Foot and Mouth Disease in Turkey, 2008-10

Objectives of project:

- Control of FMD in Turkey by mass vaccination policy, and achieving compliance with other EU control measures

Activities:

- Vaccination,
- Sero-surveillance
- Biosecurity, Cleansing and Disinfection

Budget: ~65 million €

Realization:

- ✓ Vaccine for 3 campaign, Spring/Autumn, 2008 and Spring 2009 supplied
- ✓ Vaccine supply for 2009-2010, by tender
- ✓ increased vaccination coverage nationwide in cattle (2008)



Europe -historically an endemic area



FIGURE 44.—Ulcerous lesions of foot-and-mouth disease (Rome, April 1945).

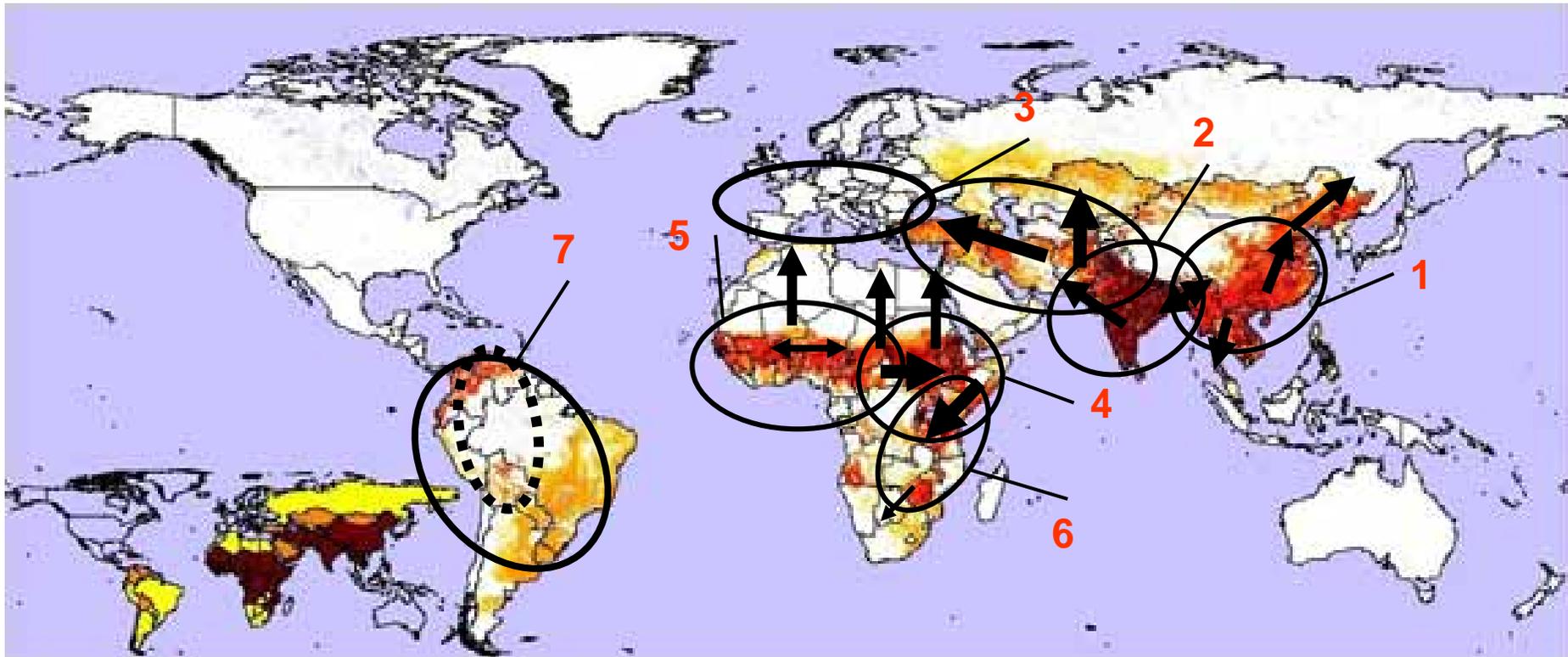




Global FMDV is distributed in 7 major virus pools

(In 1959.....8 pools. The European pool has been eradicated, but related FMDV remain in parts of South America –Pool 7).

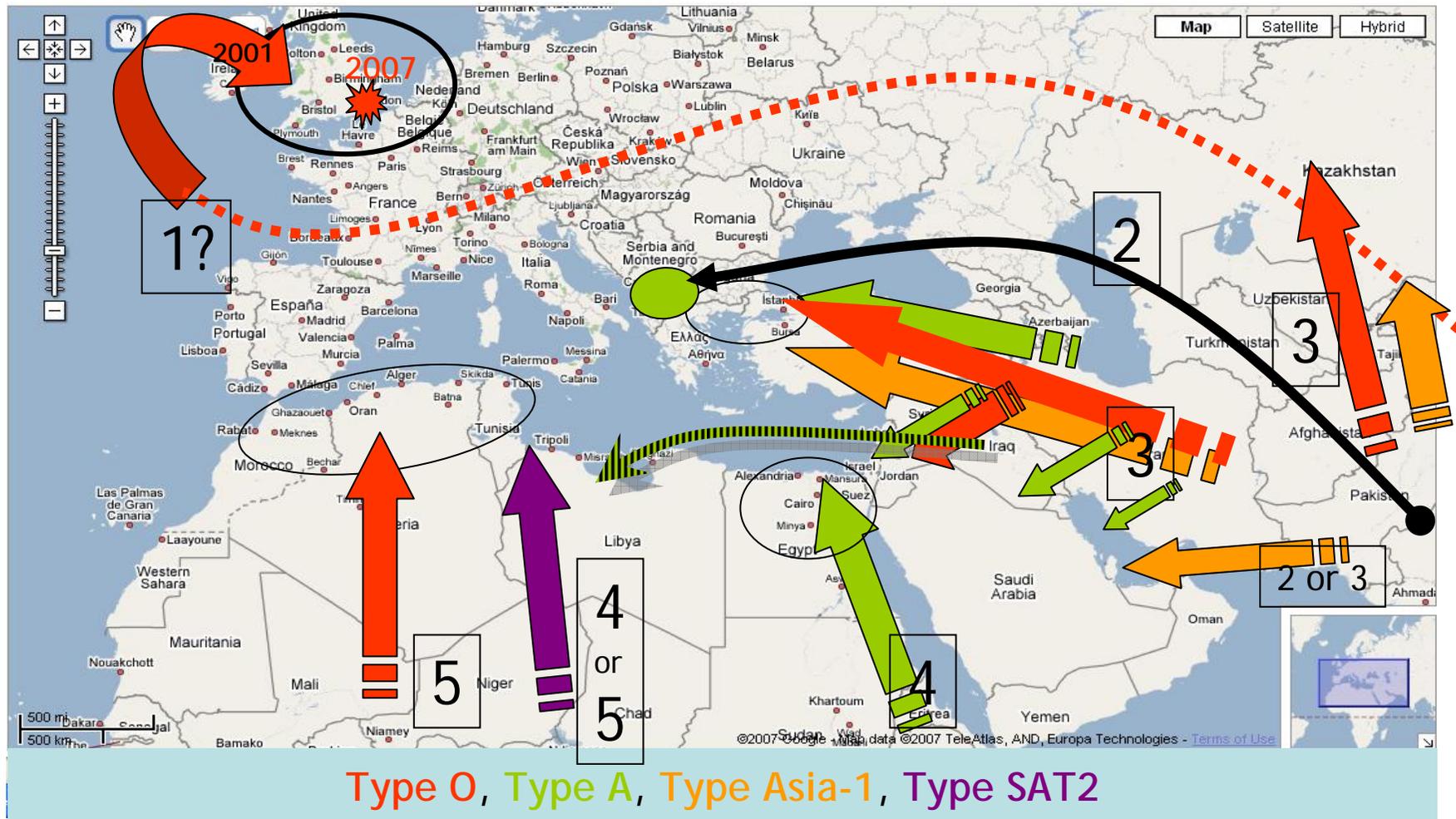
- Continual virus circulation and evolution within regional pools
- Epidemic jumps between pools and to free regions (arrows)





Incursions of FMDV into the European neighborhood

from FIVE virus pools (ecosystems) in the past 12 years.



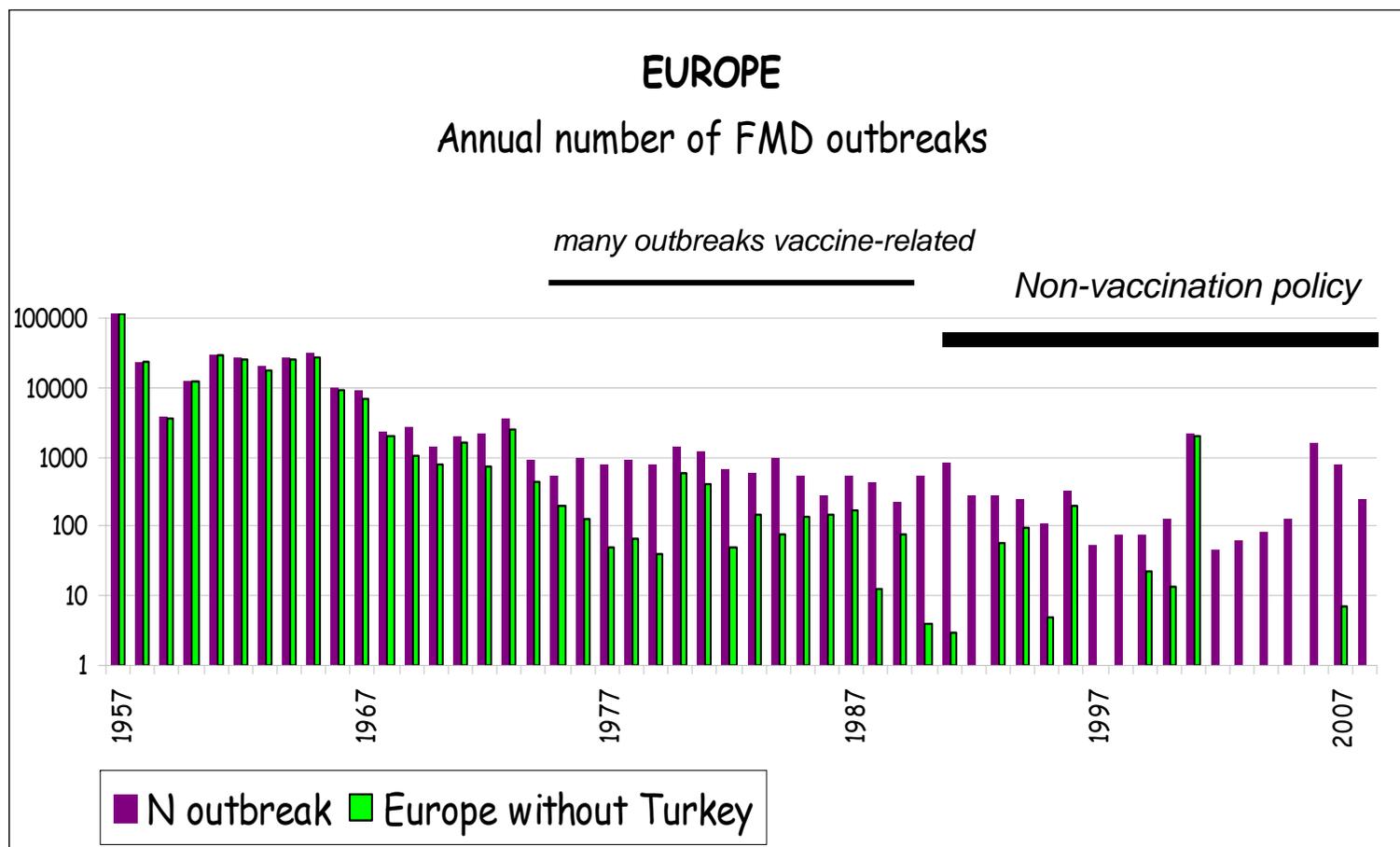


Europe -at risk!

- Europe +neighborhood:
 - growing meat-import dependance
 - interface with West Asia/Africa -land borders
- more complex risk than other regions!
 - at risk from FMDV strains/situation
 - in the proximity:
 - West Eurasia (O, A, Asia-1 :Pool 3)
 - West Africa (O, A, SAT1+2)
 - East Africa (O, A, SAT1+2)
 - and distant
 - East Asia, South Asia, South America



History of the Control of FMD in Europe: 10 fold (1 log) reduction in number of outbreaks every 10 years from 1958 to 1988 in western Europe





Periods of FMD Control in Europe

- pre-mass vaccination: to mid 1950s
 - UK slaughter policy from 1895
 - quarantine policy - most of continental Europe
 - sweeping epidemics -most European countries affected by each!
 - 100,000 + to MILLIONS of affected farms in major epidemics
- great effort to produce vaccines
 - 1938-9: Germany: first proof of emergency vaccination success (70 years!)



1958:

United Kingdompersistently imported FMD.....

*The total number of outbreaks in the United Kingdom in 1957 was **184** of which **43** were classified as **primary** and 141 as secondary*

The probable origins of infection in the 43 primary outbreaks :

Continental .	17
Imported meat of South American origin	23
Continental or imported meat equally possible.	3

For the control of the disease in the U.K. 11,279 cattle, 12,905 sheep 6,242 pigs and 20 goats were slaughtered in 1957,

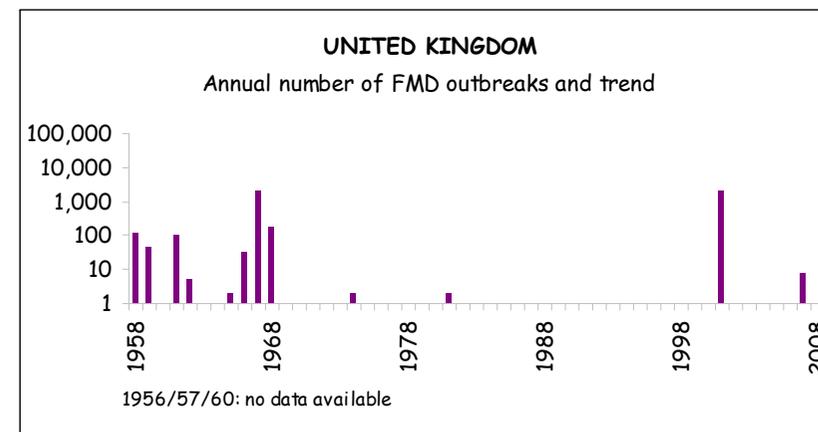
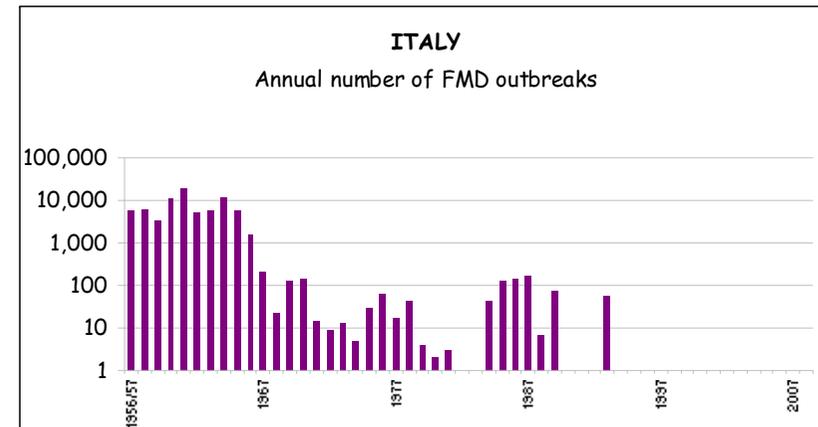
From : Report of the 4th EuFMD Session



1954 to 1970

- mass vaccination brings success
 - EuFMD: established 1954 to coordinate FMD control, through national adoption of either slaughter or national mass vaccination
 - mass vaccination programs in most of Europe:
 - brings FMD under control

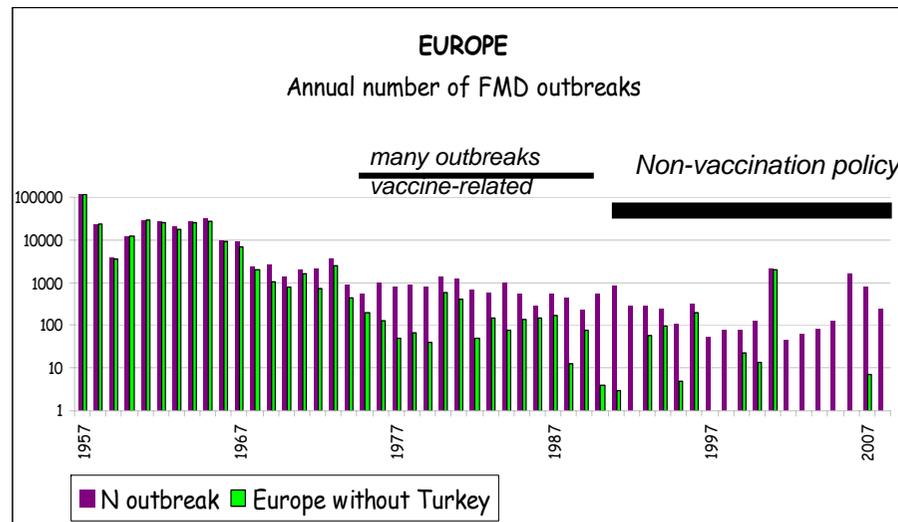
- from endemic threat -to exogenous threat
 - EuFMD led first campaigns against exotic FMDV (SAT2) in middle-east in 1960s -recognition of exotic FMDV threat
 - 1966 UK: triggered higher recognition of bone-in meat risk and of airborne transmission





1970-mid 1980s

- FMD under control (limited spread between countries)
- but regular outbreaks
 - relating to exogenous viruses (mainly imports, swill feeding)
 - and vaccine -related (formalin-inactivated, vaccine plant escapes)
 - endemic virus pool extinct -early 1970s?
- development of antigen banks - political/economic arguments for non-vaccination policy





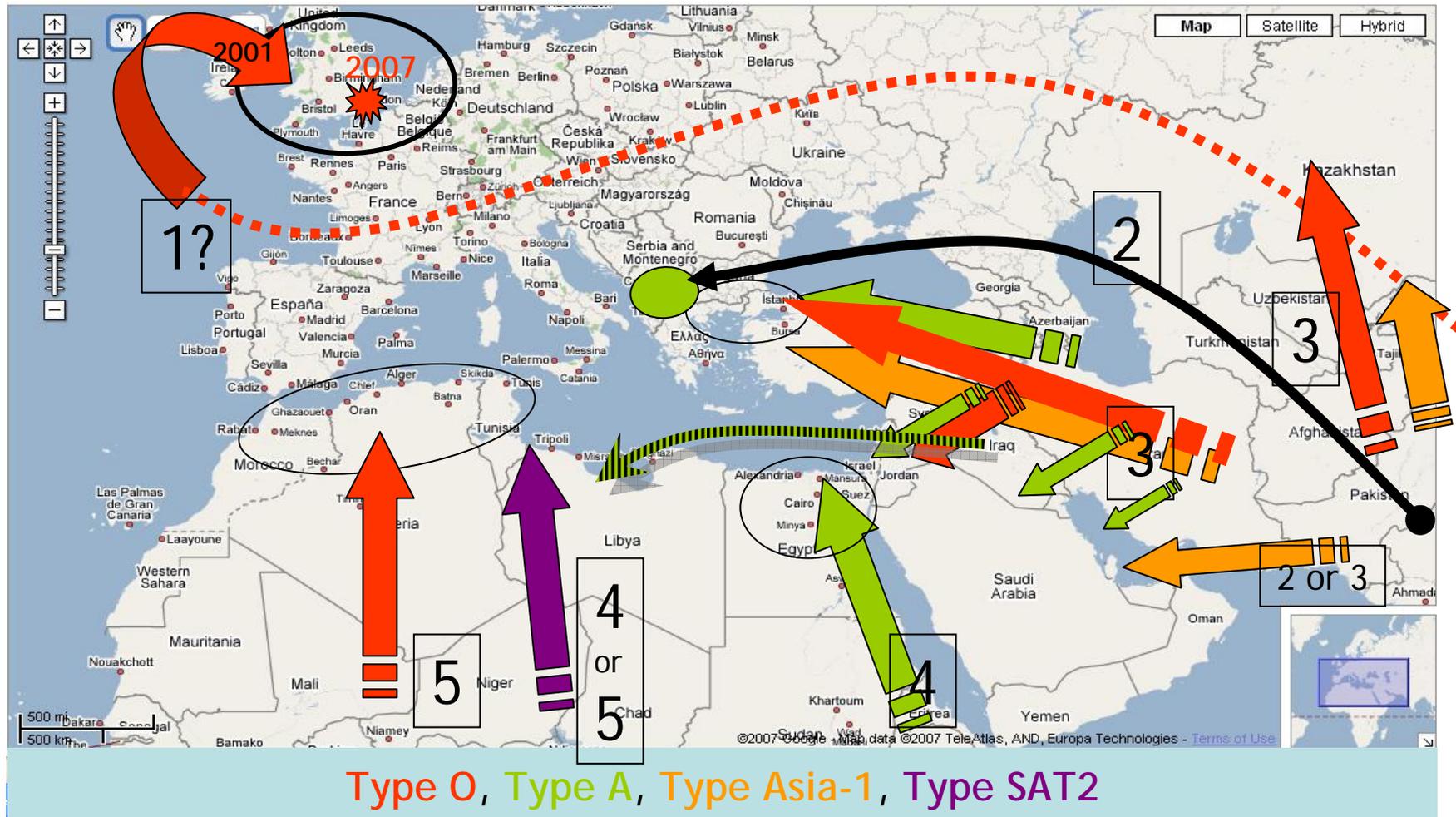
1990-2001

- non-vaccination policy
 - in European Union and adopted by EuFMD member states
 - except Turkey and Israel (not FMD free)
- sporadic incursions
 - Italy, Greece, Bulgaria (response: slaughter policy)
 - Balkans (1996 -response -emergency vaccination)



Incursions of FMDV into the European neighborhood

from FIVE virus pools (ecosystems) in the past 12 years.



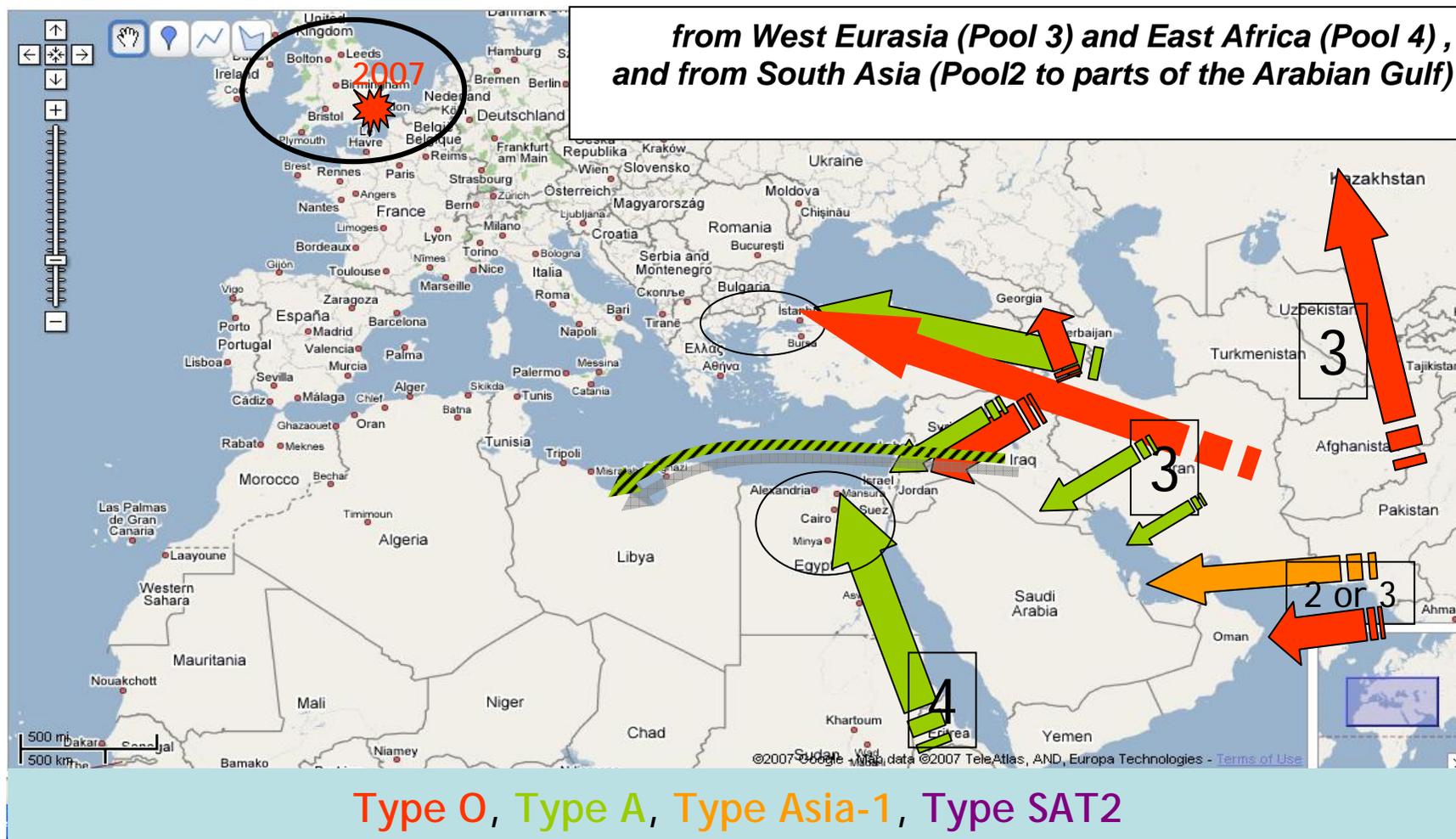


No evidence for incursions in past 20 years from...

- South America (Pool 7)
- Southern Africa (Pool 6)
- but note
 - that SAT viruses have reached European neighborhood in 2003, in the 1990s and 1960s (Turkey, Iran, Syria+)
 - SAT viruses do escape from Africa



Incursions of FMDV to the European neighborhood in the past 3 years (2006-9)





2001-present

- only TWO FMD epidemics (2001, 2007) : but many near-misses
- 2001: type O epidemic
 - United Kingdom, spreads to Ireland, France (response: slaughter policy)
 - and the Netherlands (response: vaccination followed by slaughter of vaccinates)
- enormous political and social cost
- wider recognition that FMD is a global problem
 - can enter from anywhere



COMMUNITY EXPENDITURE ON EMERGENCY MEASURES 1995-2005

Source: Eurostat

Year	CSF	FMD	AI	Other disease s	Total
1995	No data	No data	No data	No data	34,480,000
1996	No data	No data	No data	No data	2,350,000
1997	42,548,958	1,750,000	0	5,503,199	49,802,157
1998	38,523,284	0	0	2,476,715	40,999,999
1999	18,077,535	0	0	2,107,465	20,184,999
2000	47,053,494	0	13,790,015	0	60,843,509
2001	6,279,224	0	17,001,072	731,147	24,011,443
2002	11,418,920	400,448,883	0	12,456,105	424,323,908
2003	1,782,493	67,821,327	4,763,797	469,419	74,837,036
2004	8,923,019	78,733,804	55,916,517	5,137,362	148,710,703
2005	4,159,354	119,961,100	18,227,041	3,297,091	145,644,586
TOTAL costs	178,766,281	668,715,114	109,698,442	32,178,503	1,026,188,340

Animal Health Strategy (2007-2013)



European Commission

Vision

Our vision is to work in partnership to increase the prevention of animal health related problems before they happen: "Prevention is better than cure".

A new **Animal Health Strategy**
for the European Union (2007-2013) where
"Prevention is better than cure"

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE EUROPEAN PARLIAMENT,
THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

COM 539 (2007) final



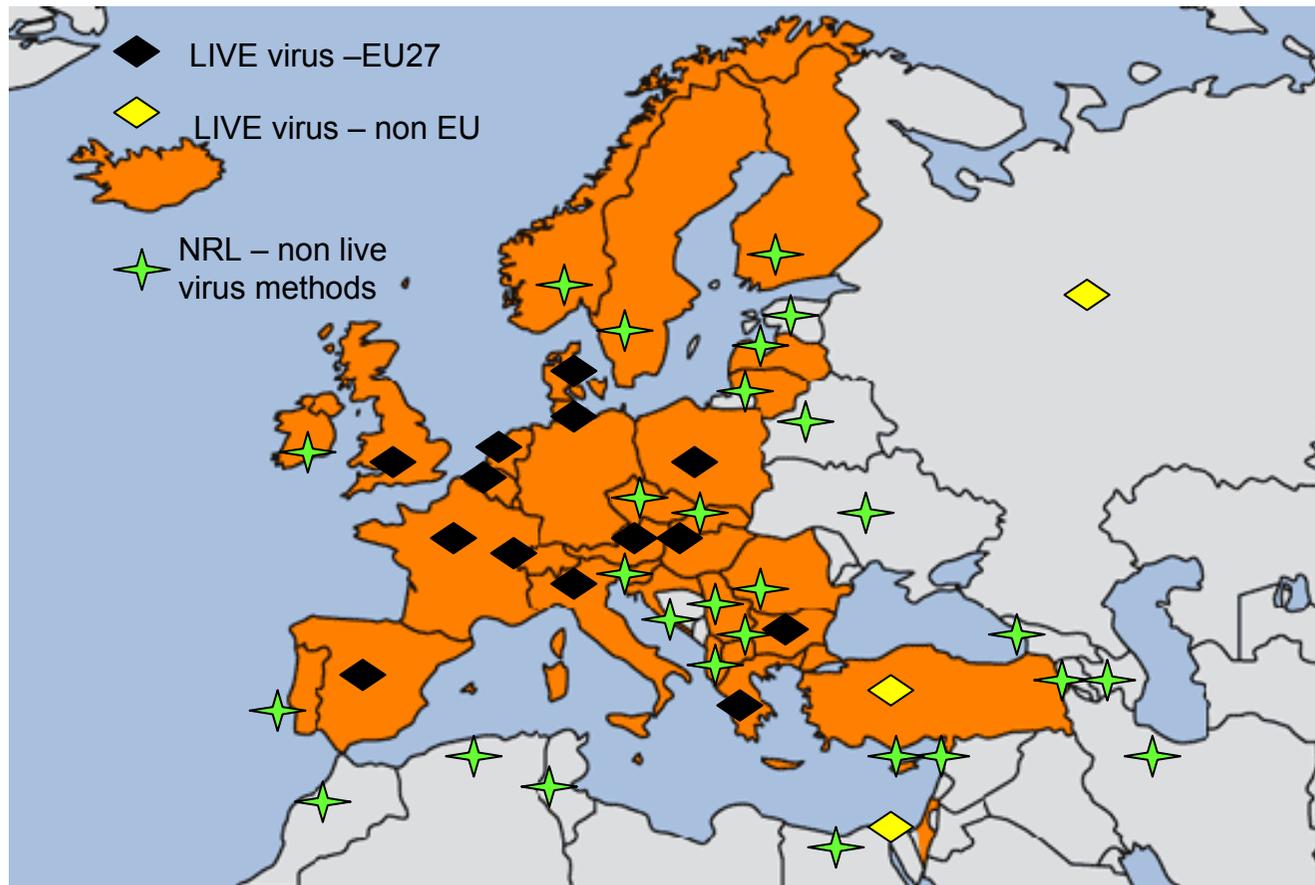
European Commission

Prevention is better than cure

- major pillars of control:
 - harmonised import policy and procedures
 - national capacity to mount rapid and effective FMD control
 - contingency plans, regular simulation exercises REQUIRED
 - equipped and prepared national FMD reference laboratories REQUIRED
 - European (and national) FMD antigen banks (for emergency vaccination)
 - 2003: new EU Directive on FMD control, widens scope for vaccination (to live) as a support measure in emergency control
 - actions in neighbouring risk regions to reduce threat
 - surveillance support -threat identification
 - emergency response
 - support to maintain buffer/protection zones
- 2005-11: increased, pre-accession support to Turkey to control FMD and other diseases



European network of FMD Reference Laboratories (Community Ref Lab = Pirbright, UK)



Annual QA/proficiency panels – for EU27+neighborhood NRLs -supported by EC and EuFMD



EC support to EuFMD: reducing risk to the European Region

- prevention better than cure
- adds to prevention and emergency response capacity of the EC
- part of Gf-TADS Europe
- funding agreement 8 m€ in 2005-8
- new agreement for 2009-2012 (8 m€)



THE EUFMD STRATEGY PAPER FOR PERIOD 2009-2013:

The context -what has changed since 2005?

- over the past 4 years, there is either little improvement or deterioration in:
 - **the risk of spread** from the major FMDV virus pools (reservoirs), with exception of South America;
 - **information availability** and quality for FMD risk assessment (endemic countries/virus pools)
 - **rate of incursions** from West Eurasia and sub-Saharan Africa into the Mediterranean (3 epidemic waves/incursions in 3 years, each affecting multiple countries);
 - **expertise level in FMD investigation/control** of European and neighbourhood veterinarians: much the same need for training as in 2005.



EUFMD STRATEGY

The New opportunities: 2009-2013

New opportunities for enhanced effectiveness in the next four years, in particular:

- **West EurAsia -promote progressive control of FMD :**
 - to initiate and influence progressive control of FMD in the 14 countries where Europe meets west Asia/middle-east (2020 Roadmap);
- **Euro-Med FMD control network:**
 - greater partnership in surveillance, early response, and planning preventive measures: working with FAO/OIE regional centres in Beirut and Tunis;
- **Threat identification:**
 - work through surveillance partners for FMDV collection , typing and information exchange: Africa immediately south of Sahara;
- **Risk Communications:**
 - produce global 6 or 12 month state of FMD control reports, for improved FMD risk analysis
- **Real time and virtual training:**
 - in country and using Web2.0 tools, building on current partnerships.



EUFMD STRATEGY :Priorities for action

Second 4 year Plan : 2009-2013

Adopted -38th Session

1. Risk reduction -
 - Turkish neighbourhood/West EurAsia
2. Viral surveillance for Vaccine bank prioritization.
3. Global FMD risk information and control program progress monitoring - across 7 virus pools.
4. FMD Training program
 - European/EuFMD Member States 4 year rolling program.
5. Technical networking and applied research- Euro-Med, West Eurasia region
 - focus on vaccine selection, vaccination performance, FMD risk, surveillance and survey design.



Priorities 2 and 3:

Viral surveillance for Vaccine bank prioritization and Global FMD risk information

-€ support given to WRL-Pirbright for OIE/FAO FMD Ref Lab Network

-€ support to sample delivery from “FMD hot spots” : African and ME proximity





Priority 4: Maintain/build expertise

- Real-time Training - in the field
- experience of clinical FMD
- ..and penside diagnostics and decisions
- Training Network (online resources, virtual training)



NOMINATION FORM - FMD FIELD TRAINING COURSES - 2009
To be returned by 08th of May 2009 (for courses ETC-1 and 2)

1. Country _____

2. Nominator (name, position and address)
(Nominations should normally be made by the CVO/Head of the Competent Authority for FMD surveillance and control)

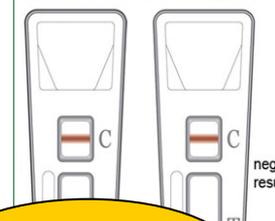
3. Nominees for Courses in 2009
(2 maximum per country; if more are listed, the top two will be considered priorities for training allocations)

Name	Course period preferred (June or October)	Position	Contact E-mail	Contact telephone number	Currently member of the Community Vet Emergency Team (CVET)?

4. Additional calls for Nominations will be made for Courses in 2010 and 2011. Please check the box below if you prefer to defer training until 2010-2011.

YES: We would prefer to send nominations for training, but 2010-11.

Lateral flow device for FMD diagnosis



Realtime training





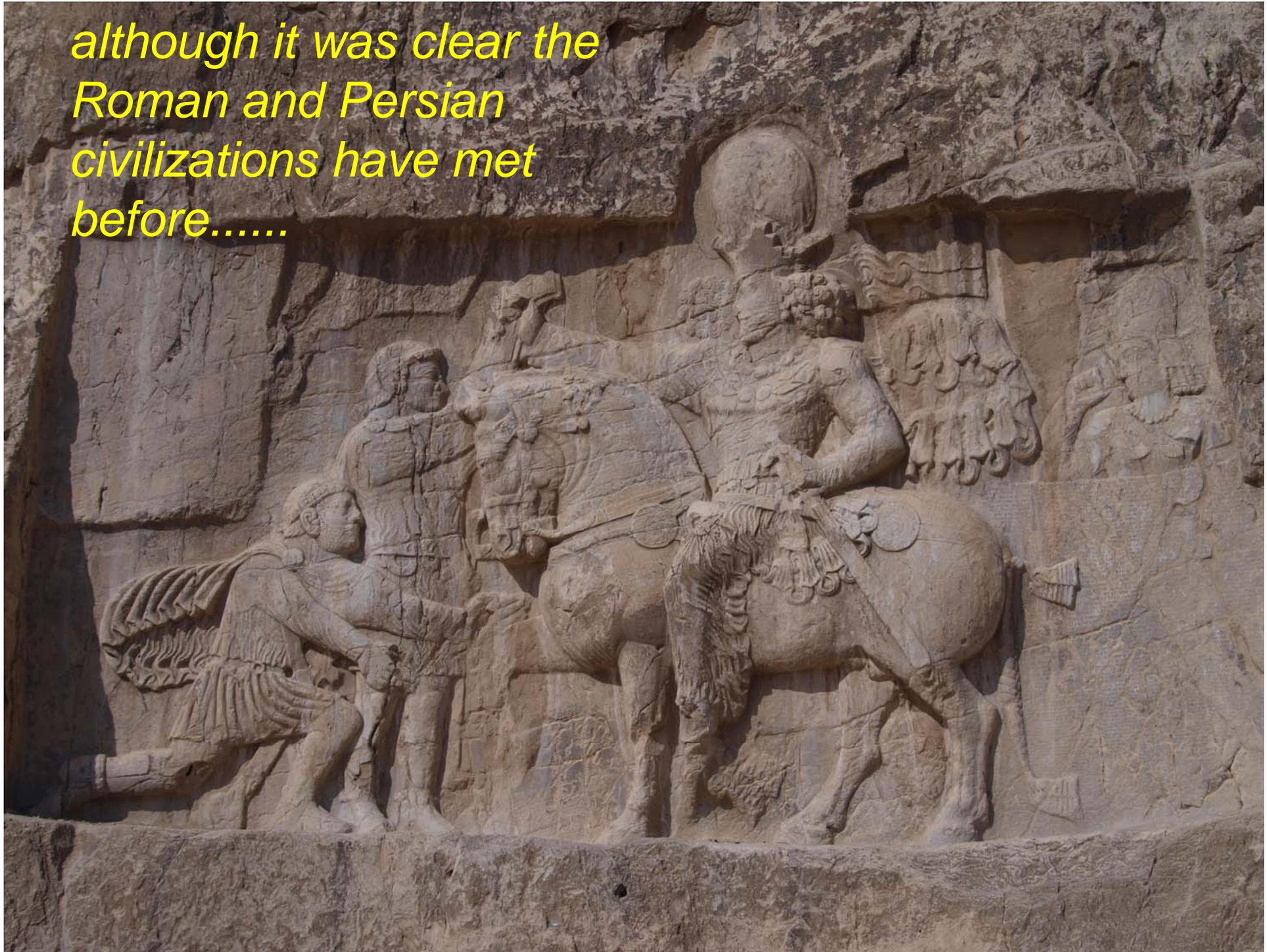
BUT Priority 1
= Risk reduction in the European region

West Eurasia FMD Roadmap development

Shiraz Meeting -November 2008

- 15 countries, invitations to OIE, EC
 - 10 in the European region (FAO/OIE)
- all countries share common risk
- each affected by the type A and/or type O epidemics in 2006-8
- first occasion for these countries to meet on FMD control

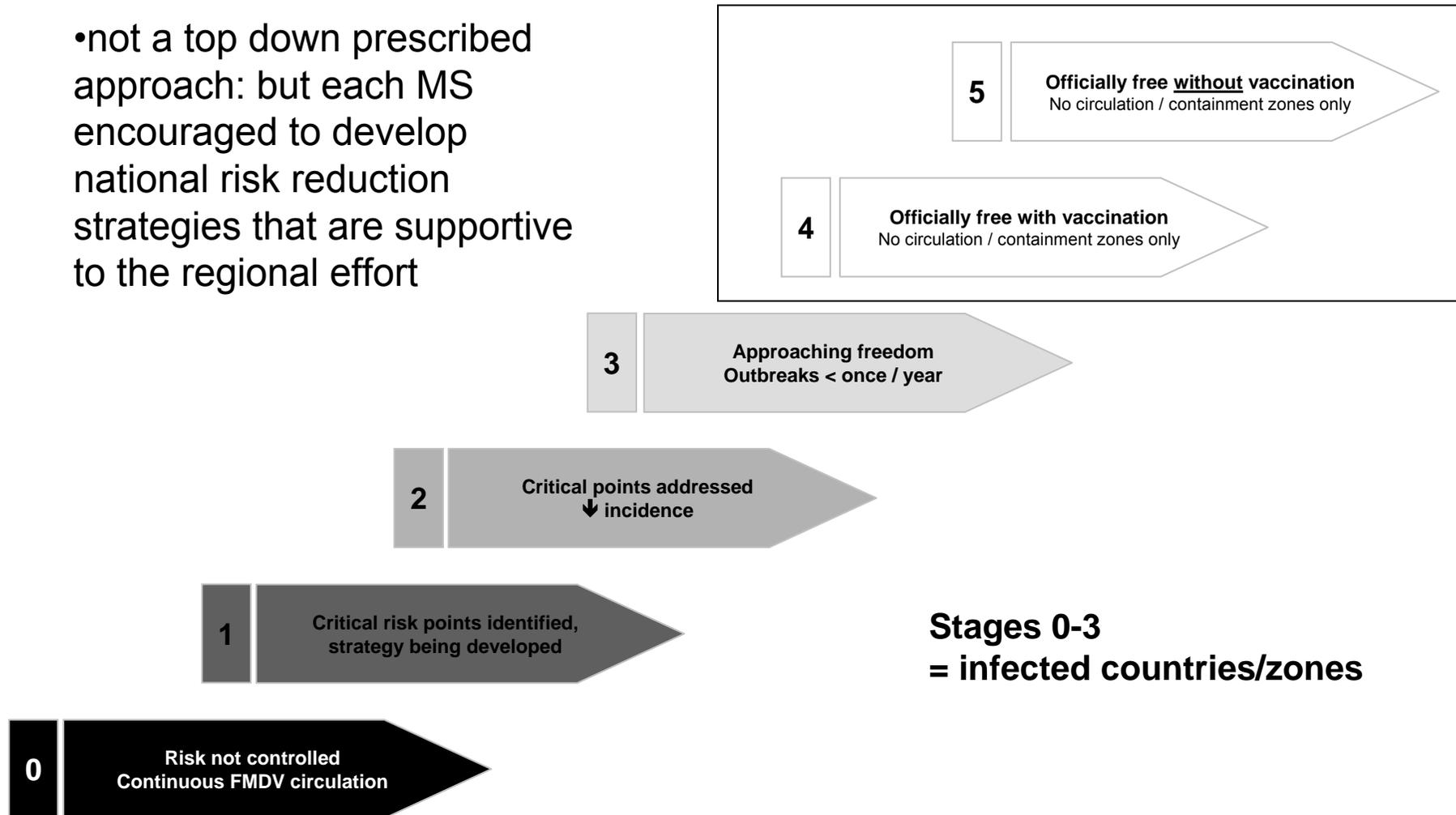
*although it was clear the
Roman and Persian
civilizations have met
before.....*





FAO Progressive control pathway - risk reduction approach

•not a top down prescribed approach: but each MS encouraged to develop national risk reduction strategies that are supportive to the regional effort

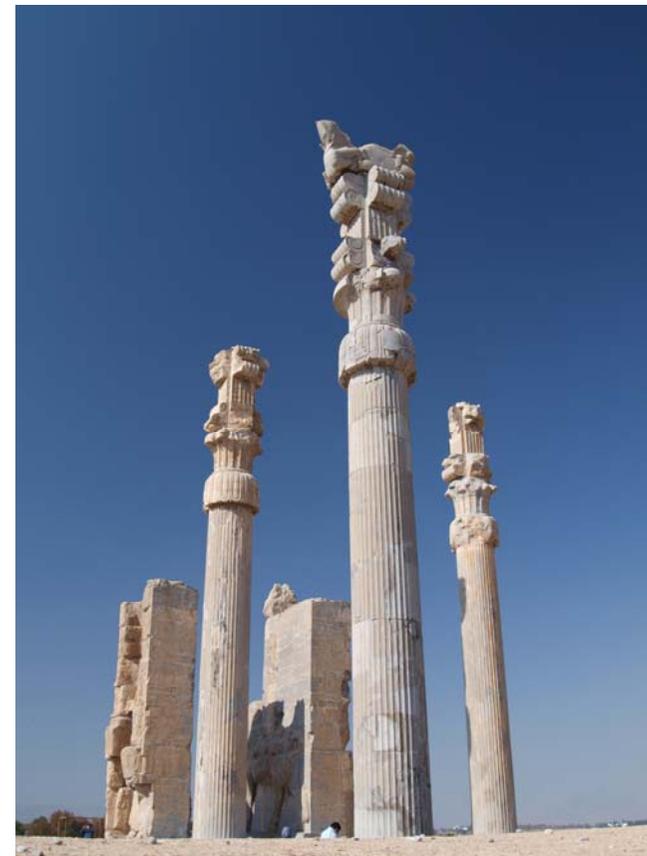




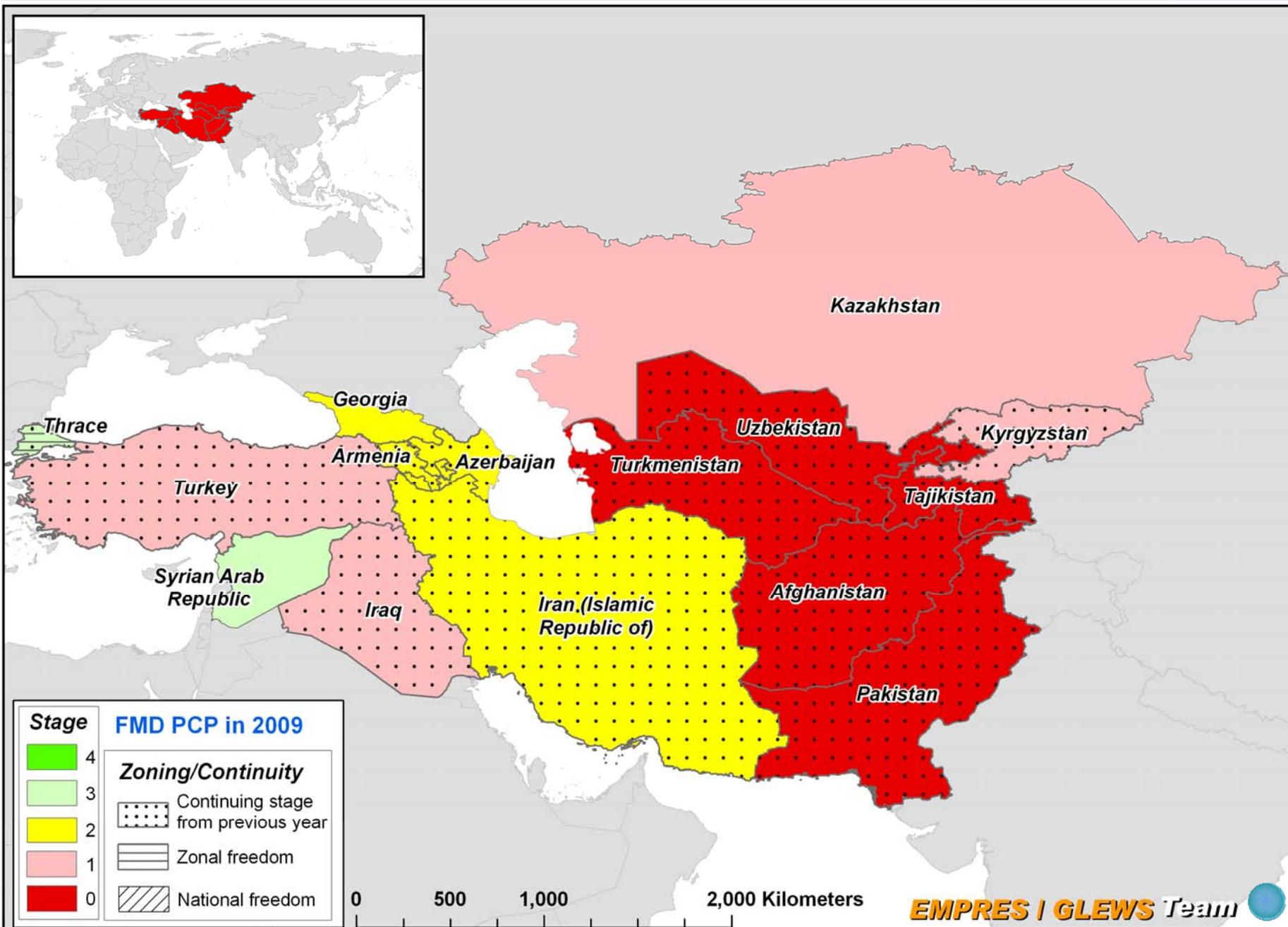
The Shiraz Meeting

- summarised current control situation
- identified the Stage of Progressive Control of each country
- identified expected Stage progression to 2020
- developed a Vision Statement
- identified the regional actions required to support progress and maintain the initiative

....while recognising Persepolis was not built in a day.....



FMD Progressive Control Pathway: 2009



Thrace

Georgia

Armenia

Azerbaijan

Turkey

Syrian Arab Republic

Iraq

Iran, (Islamic Republic of)

Turkmenistan

Uzbekistan

Kyrgyzstan

Tajikistan

Afghanistan

Pakistan

Kazakhstan



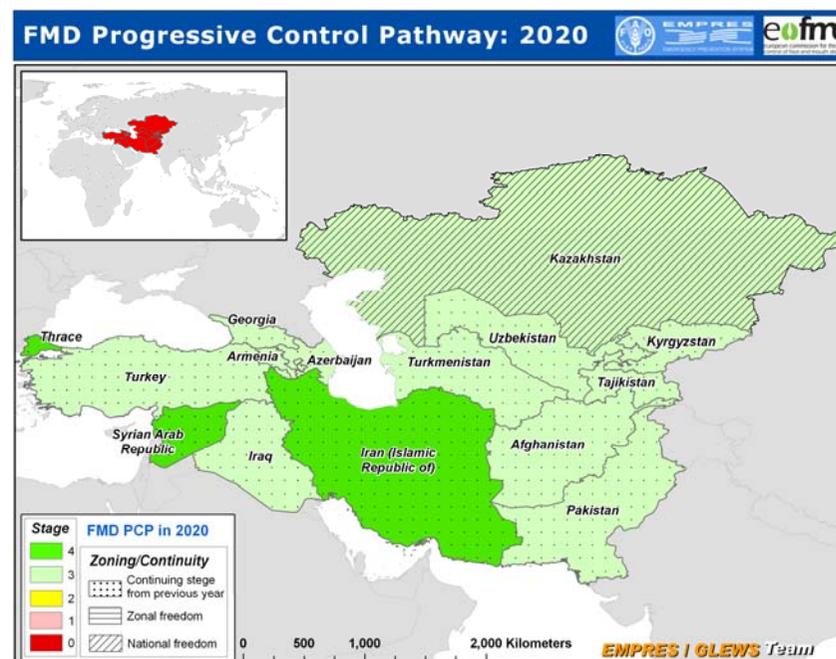
Vision for the West EurAsia Roadmap for FMD Control:

freedom from clinical disease by 2020

Regional cooperation among Eurasian countries

for the progressive control of FMD through public and private partnerships

leading towards freedom of clinical disease by 2020 for regional economic development, food security, and poverty alleviation.





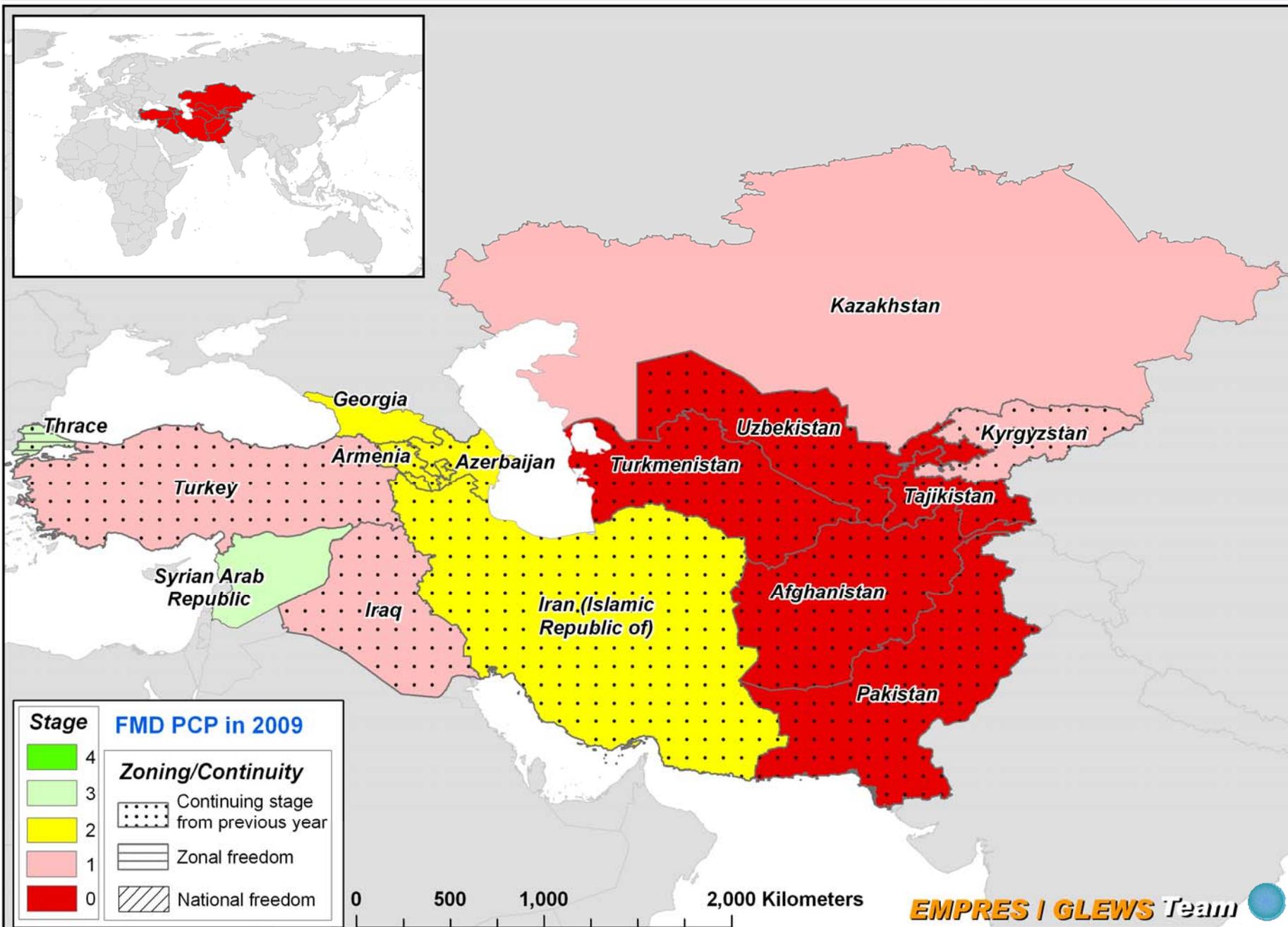
Roadmap

West EurAsia – Roadmap to 2020 - expected country progression (Shiraz Meeting Report, 2008)

West EurAsia	Countries	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		Kazakh	Level 1	Level 2	Level 2	Level 2	Level 3						
Kyrgyz	Level 1	Level 2	Level 2	Level 2	Level 3								
Tajik	Level 0	Level 0	Level 1	Level 1	Level 1	Level 2							
Turkmen	Level 0	Level 0	Level 1	Level 1	Level 1	Level 2							
Uzbek	Level 0	Level 0	Level 1	Level 1	Level 1	Level 2							
AFG	Level 0	Level 0	Level 1	Level 1	Level 1	Level 2							
IRN	Level 2	Level 2	Level 3										
PAK	Level 0	Level 0	Level 1	Level 1	Level 1	Level 2							
TURK	Level 1	Level 2	Level 2	Level 2	Level 2	Level 3							
Thrace	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3
added zones	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3
Syria	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3	Level 3
Iraq	Level 1	Level 1	Level 2										
Armenia	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
Azerbaijan	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
Georgia	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2

	N	Z	
Level 0	Level 0	hatched	0 درجة
Level 1	Level 1		1 درجة
Level 2	Level 2		2 درجة
Level 3	Level 3		3 درجة
Level 4	Level 4		4 درجة
Level 5	Level 5		5 درجة

FMD Progressive Control Pathway: 2009



Thrace

Georgia

Armenia

Azerbaijan

Turkey

Syrian Arab Republic

Iraq

Iran, (Islamic Republic of)

Turkmenistan

Uzbekistan

Tajikistan

Kyrgyzstan

Afghanistan

Pakistan

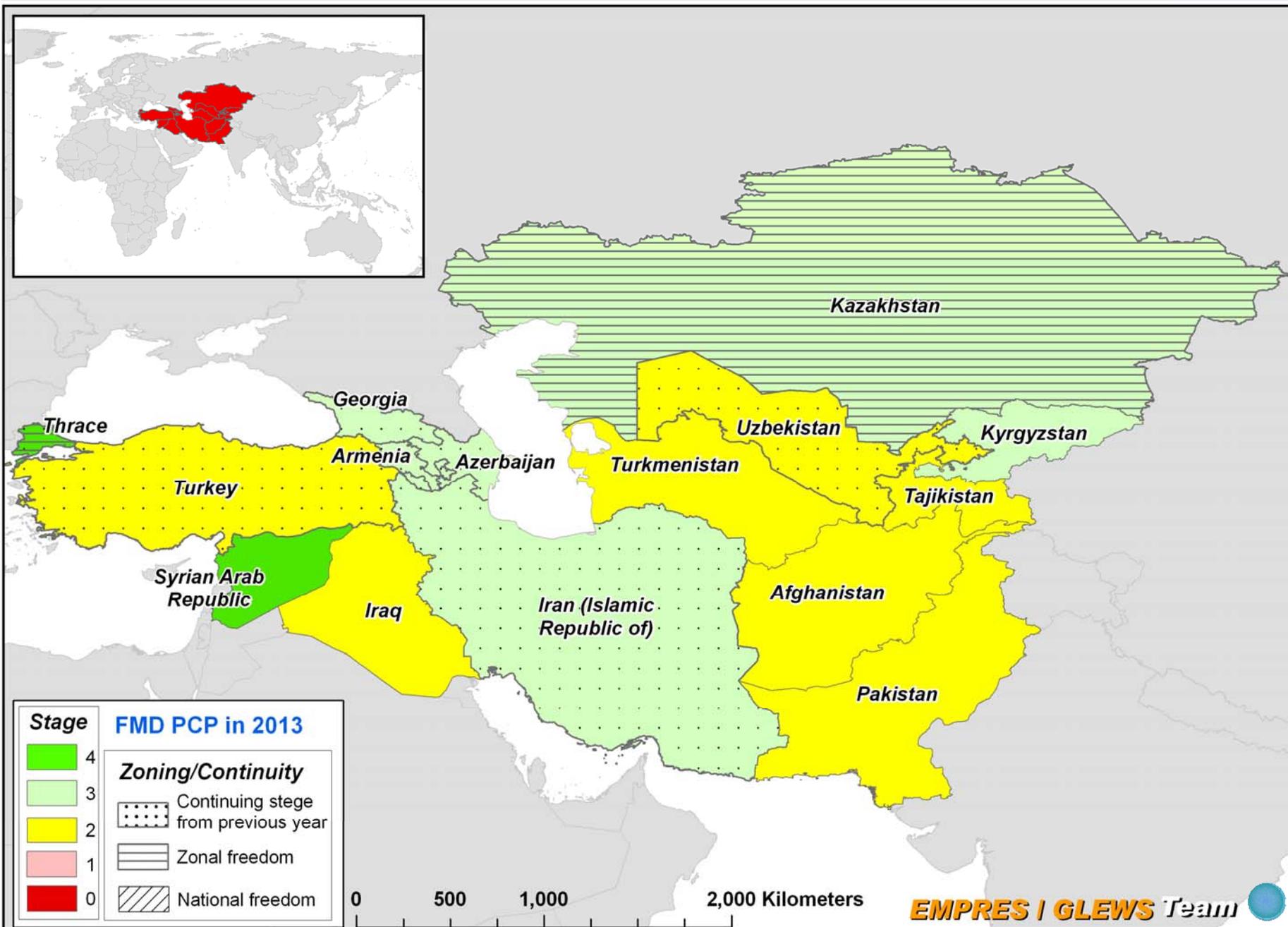
Kazakhstan



First Phase actions

- to achieve Stage 1
 - in 5 countries
 - sero-surveillance and strategy support
- to progress to Stage 2
 - in 4 countries
 - implement and monitor progress to progressively reduce incidence, address critical control points
- to progress to stage 3
 - in 4 countries
 - all outbreaks are exogenous in origin (FMDV not circulating),

FMD Progressive Control Pathway: 2013



Thrace

Georgia

Kazakhstan

Armenia

Azerbaijan

Uzbekistan

Kyrgyzstan

Turkey

Turkmenistan

Tajikistan

Syrian Arab Republic

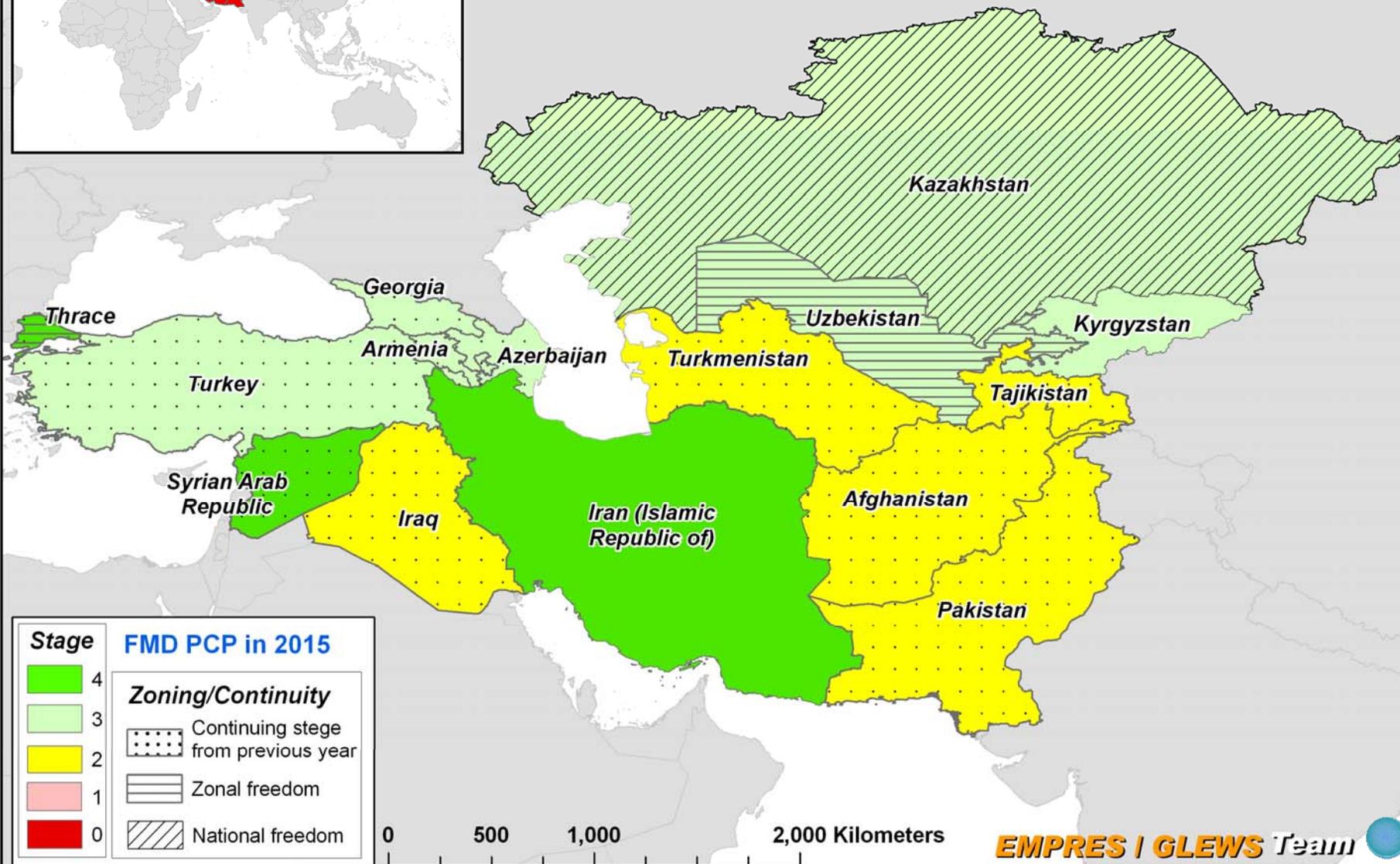
Iraq

Iran (Islamic Republic of)

Afghanistan

Pakistan

FMD Progressive Control Pathway: 2015



Thrace

Georgia

Armenia

Azerbaijan

Turkey

Syrian Arab Republic

Iraq

Iran (Islamic Republic of)

Turkmenistan

Uzbekistan

Tajikistan

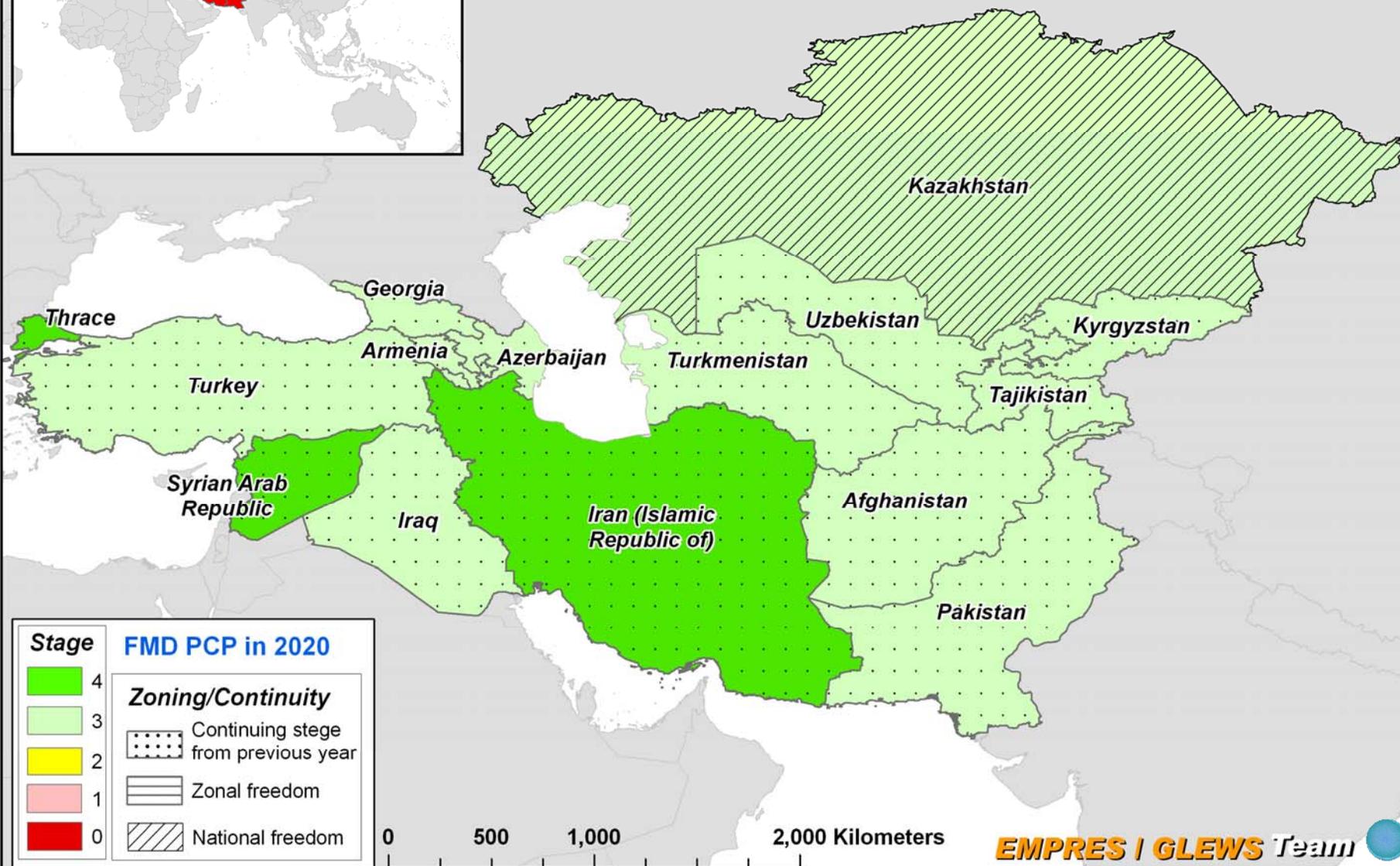
Afghanistan

Pakistan

Kazakhstan

Kyrgyzstan

FMD Progressive Control Pathway: 2020





Shiraz Recommendations

- Each country:
 - encouraged to initiate actions along the West EurAsia 2020 Roadmap,
 - should develop a National FMD risk reduction Control Programme
- Regional:
 - A Secretariat/Co-ordinating Office.
 - FAO/OIE to establish regional working groups and networks
 - Annual progress meeting for decision makers and their technical advisors from each country;
 - Increased effort - to communicate the importance of FMD control across the entire region.





Supporting long term FMD control in “West EurAsia”

The EUFMD, 38th Session :

- **supports the vision for the West Eurasian region**
 - to become free of clinical FMD by 2020;
- **commits itself, beginning with the EuFMD Strategic Plan 2009-13, to a long to term role in promoting and supporting the implementation of the Regional Roadmap**
 - with the aim of improving FMD control through progressive application of risk based control measures;
- **promotes and where required supports routine FMD surveillance**
 - to monitor progress at national and regional level in FMD control across the West EurAsia region, working with the RAHCs of FAO/OIE;
- **commits to organize annual progress monitoring meetings**
 - in co-ordination with other international agencies and donors, an annual meeting to review progress along the West EurAsia Roadmap;



West EurAsia Roadmap Progress

- REGIONAL action - contributes to GLOBAL CONTROL
 - other Roadmaps strongly encouraged
- Annual Roadmap Progress meeting
 - Istanbul, October 7-9th 2009



Acknowledgements

- DG-SANCO/European Commission
- Member states of EUFMD
- Peter de Leeuw, past-President of the EuFMD Executive Committee, Ulrich Herzog, current President
- Kris de Clercq, Aldo Dekker: EuFMD Research group
- FAO World Reference Laboratory, Pirbright
- FMD Institute, Ankara
- OIE (Gideon Bruckner, Nikola Belev)

Thank you
Merci
Gracias a todos
Aguije
Muito Obrigado