

OIE Reference Laboratory Reports Activities

Activities in 2019

This report has been submitted : 2020-01-15 17:37:43

Name of disease (or topic) for which you are a designated OIE Reference Laboratory:	Bluetongue
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Name (including Title) of Head of Laboratory (Responsible Official):	Nicola D'Alterio,DVM. Acting General Director. Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise
Name (including Title and Position) of OIE Reference Expert:	Giovanni Savini,DVM, PhD. Head of the Animal Health Department and Virology and Cell Culture Unit. Istituto Zooprofilattico Sperimentale dell' Abruzzo e del Molise
Which of the following defines your laboratory? Check all that apply:	Governmental

ToR 1: To use, promote and disseminate diagnostic methods validated according to OIE Standards

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in OIE Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests		Nationally	Internationally
c-ELISA	Yes	8,285	47
VNT	Yes	40,720	1,222
Direct diagnostic tests		Nationally	Internationally
Genotype specific Real-time RT-PCR	Yes	1,880	212
Serotype specific PCR real time	No	2,232	378
KC + VERO cell culture	Yes	437	42
Microscopic examination <i>Culicoides imicola</i>	No	3,469	0
Microscopic examination <i>Culicoides</i> spp.	No	3,469	0
Microscopic examination <i>Culicoides dewulfi</i>	No	4	0
Microscopic examination <i>Culicoides obsoletus/scoticus/montanus</i>	No	210	0

**ToR 2: To develop reference material in accordance with OIE requirements, and implement and promote the application of OIE Standards.
To store and distribute to national laboratories biological reference products and any other reagents used in the diagnosis and control of the designated pathogens or disease.**

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by the OIE?

No

3. Did your laboratory supply standard reference reagents (non OIE-approved) and/or other diagnostic reagents

to OIE Member Countries?

Yes

Type of reagent available	Related diagnostic test	Produced/ provide	Amount supplied nationally (ml, mg)	Amount supplied internationally (ml, mg)	No. of recipient OIE Member Countries	Region of recipients
Control positive sera	VNT	Provide	0	57 ml	2	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Control positive sera	VNT	Produced	150 ml	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
BTV Reference strain	VNT	Provide	0	11 ml	4	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
BTV Reference strain	RT Real Time PCR	Provide	4.5 ml	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
BTV Reference strain	VNT	Produced	560 ml	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Monoclonal vs VP7-BTV	Indirect IF	Provide	0	0.2 ml	1	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East

Cell culture	Virus isolation	Provide	0	3 ml	2	<input type="checkbox"/> Africa <input checked="" type="checkbox"/> Americas <input checked="" type="checkbox"/> Asia and Pacific <input type="checkbox"/> Europe <input type="checkbox"/> Middle East
BTV positive RNA	RT Real Time PCR	Provide	0	50 ml	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
VP7 monoclonal antibody	c- ELISA	Produced	15 ml	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Antibody Test Kit c- ELISA rec VP7	c- ELISA	Produced	720 packages	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
c-ELISA antigen for 720 tests	c- ELISA	Produced	9.15 ml	0	1	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to OIE Member Countries?

No

ToR 3: To develop, standardise and validate, according to OIE Standards, new procedures for diagnosis and control of the designated pathogens or diseases

6. Did your laboratory develop new diagnostic methods validated according to OIE Standards for the designated pathogen or disease?

No

7. Did your laboratory develop new vaccines according to OIE Standards for the designated pathogen or disease?

No

ToR 4: To provide diagnostic testing facilities, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries

8. Did your laboratory carry out diagnostic testing for other OIE Member Countries?

Yes

Name of OIE Member Country seeking assistance	Date (month)	No. samples received for provision of diagnostic support	No. samples received for provision of confirmatory diagnoses
UNITED ARAB EMIRATES	March	0	96
TUNISIA	June-November	30	39
NAMIBIA	October	0	62
THE NETHERLANDS	November	32	0

9. Did your laboratory provide expert advice in technical consultancies on the request of an OIE Member Country?

Yes

Name of the OIE Member Country receiving a technical consultancy	Purpose	How the advice was provided
BRAZIL	Diagnostic assistance and epidemiological support	Remote assistance
CROATIA	Diagnostic assistance	Remote assistance
NAMIBIA	Surveillance and diagnostic assistance	In loco and remote assistance
TUNISIA	Support on typing and sequencing BTV strains, on interpreting diagnostic results, on confirming preliminary findings and drawing national surveillance plans.	Remote assistance
UNITED ARAB EMIRATES	Diagnostic assistance and epidemiological support	Remote assistance

ToR 5: To carry out and/or coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations

10. Did your laboratory participate in international scientific studies in collaboration with OIE Member Countries other than the own?

Yes

Title of the study	Duration	Purpose of the study	Partners (Institutions)	OIE Member Countries involved other than your country
Can we predict emergence and spread of Culicoides-borne arboviruses in Europe according to genetic drivers of vector competence and virome diversity?(Acronym: CuliOme). ANIHWA call2	3 years	Study to compare vector competence of different BTV strains/serotypes	Pirbright Institute, European Bioinformatics Institute, CIRAD	FRANCE UNITED KINGDOM
PALE-Blu "Understanding pathogen, livestock, environment interactions involving bluetongue virus; Project ID: 727393. 2017-2020	42 months	A network of experts BTV European Institute, with partners in endemic region of Africa the Middle East and Turkey, to increase the accuracy of BTV-strain distribution maps, to identify pathways and mechanisms for spread into and within Europe, as well as appropriate prevention strategies. These studies will provide a better understanding of incursion risks for different BTV strains, supporting effective control strategies.	The Pirbright Institute, Agence Nationale De Securite Sanitaire De L'alimentation, De L'environnement Et Du Travail, Centre De Cooperation International En Recherche Agronomique Pour Le Developpement , Friedrich Loeffler Institut, Environmental Research Group Oxford Limited, Universite Libre De Bruxelles, Instituto Nacional De Investigacion Y Tecnologia Agraria Y Alimentaria, Stichting Dienst Landbouwkundig Onderzoek, University Of Glasgow, Kimron Veterinary Institute, Universidad Complutense De Madrid, Statens Veterinaermedicinska Anstalt, Kafkas Universitesi, Institut Agronomique Et Veterinaire Hassan li, The University Of Nottingham, International Livestock Research Institute, Institut Senegalais De Recherches Agricoles	BELGIUM FRANCE GERMANY ISRAEL KENYA MOROCCO SENEGAL SPAIN SWEDEN TUNISIA UNITED KINGDOM
Med-Vet ET-1 JRP (MAD-VIR) "Metagenomic Array Detection of emerging Virus in EU	2 years	To further develop and harmonize a non-NGS-based metagenomics method for detection of viral FBZ agents and emerging threats	SSI, Denmark; ANSES, France; PIWET, Poland; APHA, UK; NCE, Hungary; VRI, Czech Republic; Surrey Univ., UK; IZSLER, Italy; INIA, Spain;	CZECH REPUBLIC DENMARK FRANCE HUNGARY POLAND SPAIN UNITED KINGDOM

OIE twinning contract on the establishment of OIE collaborating centre on camel diseases in Abu Dhabi-UAE	5 years	The network should build up processes and tools to facilitate the diagnosis and control of the most important diseases of camelids, share information and standardize and validate diagnostic tests in line with OIE standards and guidelines.	IZSLER,IZSSi, Italian Ministry of Health, ADFQA, OIE	FRANCE ITALY UNITED ARAB EMIRATES
OIE Twinning contract for Bluetongue between Istituto Zooprofilattico Sperimentale dell' Abruzzo e del Molise and Istituto Biologico of San Paolo	2 years	To enhance capacity and improve scientific capabilities in relation to diagnosis and surveillance of Bluetongue.	Instituto Biológico of São Paulo	BRAZIL
Partnership for Research and Innovation in the Mediterranean Area (PRIMA) European Commission Project "A novel integrated and sustainable approach to monitor and control Bluetongue spread in the Mediterranean Basin" (BlueMed)	3 years	Setting up a comprehensive and flexible operating model capable to detect new incursions or circulation of BTV strains and prevent and/or control their spread in the Mediterranean region. To refine current diagnostic systems and explore the basis for improved control strategies.	National School of Veterinary Medicine of Sidi Thabet (ENMV)/ National Institute of Veterinary Research of Tunisia (IRVT) Tunisia, National Research Centre (NRC) Egypt, ANSES France	EGYPT FRANCE TUNISIA
Host determinants of disease outcomes in arboviral infections"	5 years	To study the pathogenesis of the initial phases of BTV infection	MRC-University of Glasgow Centre for Virus, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria Research, Glasgow, United Kingdom	SPAIN UNITED KINGDOM

ToR 6: To collect, process, analyse, publish and disseminate epizootiological data relevant to the designated pathogens or diseases

11. Did your Laboratory collect epizootiological data relevant to international disease control?

Yes

If the answer is yes, please provide details of the data collected:
Confirmation of the circulation and information on the genome characteristic of BTV-4 in Tunisia Confirmation of the circulation and information on the genome characteristic of BTV-2 in Tunisia

12. Did your laboratory disseminate epizootiological data that had been processed and analysed?

Yes

If the answer is yes, please provide details of the data collected:
Meeting "Pale-Blu project":oral presentation "Analyses of BTV strains circulating in Europe and adjoining/'source' regions: diagnostic tools for novel BTV identification and typing"

**13. What method of dissemination of information is most often used by your laboratory?
(Indicate in the appropriate box the number by category)**

a) Articles published in peer-reviewed journals: 7

1. Cappai S, Rolesu S, Loi F, Liciardi M, Leone A, Marcacci M, Teodori L, Mangone I, Sghaier S, Portanti O, Savini G, Lorusso A. Western Bluetongue virus serotype 3 in Sardinia, diagnosis and characterization. *Transbound Emerg Dis.* 2019 May;66(3):1426-1431. doi: 10.1111/tbed.13156. Epub 2019 Mar 19. PMID: 30806040
2. Curini V, Marcacci M, Tonelli A, Di Teodoro G, Di Domenico M, D'Alterio N, Portanti O, Ancora M, Savini G, Panfili M, Camma' C, Lorusso A. Molecular typing of Bluetongue virus using the nCounter® analysis system platform. *J Virol Methods.* 2019 Jul;269:64-69. doi: 10.1016/j.jviromet.2019.04.002. Epub 2019 Apr 2. PMID: 30951789
3. Di Teodoro G, Bortolami A, Teodori L, Leone A, D'Alterio N, Malatesta D, Rosamilia A, Colaianni ML, Petrini A, Terregino C, Savini G, Bonfante F, Lorusso A. Replication kinetics and cellular tropism of emerging reoviruses in sheep and swine respiratory ex vivo organ cultures. *Vet Microbiol.* 2019 Jul;234:119-127. doi: 10.1016/j.vetmic.2019.06.001. Epub 2019 Jun 4. PMID: 31213267
4. Federici V, Goffredo M, Mancini G, Quaglia M, Santilli A, Di Nicola F, De Ascentis M, Cabras P, Volpicelli C, De Liberato C, Satta G, Federico G, Leone A, Piscicella M, Portanti O, Pizzurro F, Teodori L, Savini G. 2019. Vector Competence of Italian Populations of Culicoides for Some Bluetongue Virus Strains Responsible for Recent Northern African and European Outbreaks. 2019 Oct 12; 11(10). pii: E941. doi: 10.3390/v11100941.
5. Maclachlan NJ, Zientara S, Wilson WC, Richt JA, Savini G. Bluetongue and epizootic hemorrhagic disease viruses: recent developments with these globally re-emerging arboviral infections of ruminants. *Curr Opin Virol.* 2019 Feb;34:56-62. doi: 10.1016/j.coviro.2018.12.005. Epub 2019 Jan 14. Review. PMID: 30654271
6. Puggioni G, Pintus D, Meloni G, Rocchigiani AM, Manunta D, Savini G, Oggiano A, Ligios C. Persistence of Bluetongue virus serotype 1 virulence in sheep blood refrigerated for 10 years. *Vet Ital.* 2018 Dec 31;54(4):349-353. doi: 10.12834/VetIt.1344.7401.3. PMID: 30681135
7. Spedicato M, Carmine I, Teodori L, Leone A, Casaccia C, Di Gennaro A, Di Francesco G, Marruchella G, Portanti O, Marini V, Piscicella M, Lorusso A, Savini G. Transplacental transmission of the Italian Bluetongue virus serotype 2 in sheep. *Vet Ital.* 2019 Jun 30;55(2):131-141. doi: 10.12834/VetIt.1913.10140.1 PMID: 31274174

b) International conferences: 11

1. Meeting "Pale-Blu project". Bruxelles, Belgium, February 2019.
2. Annual Scientific Meeting "One Health EJP Satellite Workshop 2019". Dublin, Ireland, May 2019.
3. Workshop "ANIHWA Era-Net PROJECT Epidemiological models for control of arboviral disease for Europe - ARBONET". Teramo, Italy, May 2019
4. Meeting ERFAN. Windhoek, Namibia, September 2019
5. Final Meeting "Culiome project". Giulianova, Teramo, Italy, September 2019
6. Annual Meeting "Pale-Blu project". Giulianova, Teramo, Italy, September 2019
7. Workshop "Vector Borne Disease Operational Readiness". Sofia, Bulgaria, October 2019
8. Annual Steering Committee "OIE twinning contract on the establishment of OIE collaborating centre on camel diseases in Abu Dhabi-UAE". Cagliari, Italy, September 2019
9. 100° CRWAD CONGRESS. Chicago, USA. November 2019.
10. Second meeting ERFAN. Tunisi, Tunisia, November 2019
11. EU Bluetongue Reference Laboratories Workshop 2019. Madrid, Spain, November 2019

c) National conferences: 6

1. Malattie animali emergenti e transfrontaliere, una minaccia per l'Europa. Agrigento, Italy, May 2019
2. I risultati della ricerca corrente condotta dall'Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale". Anno 2018. Teramo, Italy, June 2019
3. S.I.Di.L.V. (XIX), Matera, Italy, October 2019
4. Giornata di studio Bluetongue, Teramo, Italy, November 2019
5. Zoonosi e malattie emergenti trasmesse da vettori. Avezzano, Italy, December 2019
6. Nuove tendenze nelle tecniche di laboratorio utilizzate in IZSAM. Teramo, Italy, December 2019

d) Other:

(Provide website address or link to appropriate information) 1

A public web site (www.izs.it) disseminating information and data on Bluetongue is continuously updated in order to have:

- the latest on the Italian and European Regulations issued by the Italian Ministry of Health;
- the current and past epidemiological situations in Italy;
- weekly updated maps on entomological and serological surveillance activities (bluetongue national information system);
- the current epidemiological situations in the Mediterranean Basin;
- rules and regulations
- an scientific documents on-line.

ToR 7: To provide scientific and technical training for personnel from OIE Member Countries

To recommend the prescribed and alternative tests or vaccines as OIE Standards

14. Did your laboratory provide scientific and technical training to laboratory personnel from other OIE Member Countries?

Yes

a) Technical visits: 1

b) Seminars: 0

c) Hands-on training courses: 3

d) Internships (>1 month): 5

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
a	Germany	1
c	Italy	3
d	Brazil	2
d	Mozambique	1
d	Croatia	1
d	United Kingdom	1

ToR 8: To maintain a system of quality assurance, biosafety and biosecurity relevant for the pathogen and the disease concerned

15. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)
ISO 17025	ACCREDIA IZSAM_Italy.pdf

16. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
VNT	ACCREDIA
c-ELISA	ACCREDIA
Genotype specific Real-time RT-PCR	ACCREDIA
BTV isolation	ACCREDIA

17. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

(See Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Chapter 1.1.4)

ToR 9: To organise and participate in scientific meetings on behalf of the OIE

18. Did your laboratory organise scientific meetings on behalf of the OIE?

Yes

National/ International	Title of event	Co-organiser	Date (mm/yy)	Location	No. Participants
National	I risultati della ricerca corrente condotta dall'Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale". Anno 2018	Italian Ministry of Health	06/19	Teramo (Italy)	80
National	Rafforzare la formazione in entomologia di sanità pubblica degli operatori del SSN: identificazione, metodiche di sorveglianza e di controllo	Italian Ministry of Health	09/19 and 10/19	Teramo (Italy)	80
National	BT National Meeting	Italian Ministry of Health	11/19	Teramo (Italy)	80
International	Final Meeting "Culiome project" and annual meeting "Pale-BLU project"	Project partner	09/19	Giulianova, Teramo (Italy)	80
International	Meetings ERFAN project	Project partner	09/19 and 11/19	Windhoek (Namibia) and Tunis (Tunisia)	80

19. Did your laboratory participate in scientific meetings on behalf of the OIE?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
Meeting "Pale-Blu project".	02/19	Bruxelles (Belgium)	Speaker	Analyses of BTV strains circulating in Europe and adjoining/'source' regions: diagnostic tools for novel BTV identification and typing
Annual meeting "Pale-BLU project"	09/19	Giulianova, Teramo (Italy)	Speaker	Bluetongue in Italy: we can't let our guard down?
BT National Meeting	11/19	Teramo (Italy)	Speaker	Bluetongue in Italia: la tempesta dopo la quiete?; Kit commerciali e diagnosi di BTV: uno studio comparativo; BTV e ricerca, una miniera d'oro
EU Bluetongue Reference Laboratories Workshop 2019	11/19	Madrid (Spain)	Speaker	BTV situation in Italy
Workshop "Zoonosi e malattie emergenti trasmesse da vettori"	12/19	Avezzano (Italy)	Speaker	La sorveglianza entomologica
Workshop "Nuove tendenze nelle tecniche di laboratorio utilizzate in IZSAM"	12/19	Teramo (Italy)	Speaker	Diagnostica molecolare integrata: una sfida per il futuro dell'IZSAM; Interpretazione dei dati NGS nell'ambito delle malattie infettive a eziologia virale e virus discovery

ToR 10: To establish and maintain a network with other OIE Reference Laboratories designated for the same pathogen or disease and organise regular inter-laboratory proficiency testing to ensure comparability of results

20. Did your laboratory exchange information with other OIE Reference Laboratories designated for the same pathogen or disease?

Yes

21. Was your laboratory involved in maintaining a network with OIE Reference Laboratories designated for the same pathogen or disease by organising or participating in proficiency tests?

Yes

Purpose of the proficiency tests: ¹	Role of your Reference Laboratory (organiser/ participant)	No. participants	Participating OIE Ref. Labs/ organising OIE Ref. Lab.
Detection of BTV and serotyping in blood samples (Real Time RT-PCR)	Participant	50	5/1
Detection of BTV antibody in serum samples (c-ELISA)	Participant	50	5/1

¹ validation of a diagnostic protocol: specify the test; quality control of vaccines: specify the vaccine type, etc.

22. Did your laboratory collaborate with other OIE Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

Title of the project or contract	Scope	Name(s) of relevant OIE Reference Laboratories
OIE Bluetongue reference laboratories network (OIE- BTNet)	Sharing reagents, updating, revising and validating the protocols of old procedures and adding new diagnostic procedures	OVI-Onderstepoort Veterinary Institute, CSIRO Australian Animal Health Laboratory (AAHL), Pirbright Institute, APHIS USDA
Can we predict emergence and spread of Culicoides-borne arboviruses in Europe according to genetic drivers of vector competence and virome diversity?(Acronym: CuliOme). ANIHWA call2	Study to compare vector competence of different BTV strains/serotypes	Pirbright Institute
Understanding pathogen, livestock, environment interactions involving bluetongue virus_Pale Blu	A network of experts BTV European Institute,with partners in endemic region of Africa the Middle East and Turkey, to increase the accuracy of BTV-strain distribution maps, to identify pathways and mechanisms for spread into and within Europe, as well as appropriate prevention strategies. These studies will provide a better understanding of incursion risks for different BTV strains, supporting effective control strategies	Pirbright Institute
OIE Bluetongue reference laboratories network (OIE- BTNet)	Revising the OIE Terrestrial Manual, ninth edition: Chapter on bluetongue	OVI-Onderstepoort Veterinary Institute, CSIRO Australian Animal Health Laboratory (AAHL), Pirbright Institute, APHIS USDA

ToR 11: To organise inter-laboratory proficiency testing with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results

23. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than OIE Reference Laboratories for the same disease?

Yes

Note: See Interlaboratory test comparisons in: Laboratory Proficiency Testing at: <http://www.oie.int/en/our-scientific-expertise/reference-laboratories/proficiency-testing> see point 1.3

Purpose for inter-laboratory test comparisons ¹	No. participating laboratories	Region(s) of participating OIE Member Countries
Detection of BTV and serotyping in blood samples (Real Time RT-PCR)	19	<input checked="" type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East
Detection of BTV antibody in serum samples (c-ELISA)	34	<input type="checkbox"/> Africa <input type="checkbox"/> Americas <input type="checkbox"/> Asia and Pacific <input checked="" type="checkbox"/> Europe <input type="checkbox"/> Middle East

ToR 12: To place expert consultants at the disposal of the OIE

24. Did your laboratory place expert consultants at the disposal of the OIE?

Yes

Kind of consultancy	Location	Subject (facultative)
ad hoc Group	Italian Ministry of Health (Rome)	to revise and re-draw the National surveillance plan
ad hoc Group	Italian Ministry of Health (Rome)	International agreement between Italy and European countries: advises on animal trade

25. Additional comments regarding your report: