

Role of the OIE Reference labs for diagnostics, proficiency tests and twinning programmes

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OIE 3rd Regional Webinar on:
OIE international standards and tools to facilitate international movement of (competition) horses, procedures supporting the publication of self-declarations of animal health status and the official recognition of African horse sickness (AHS) free status

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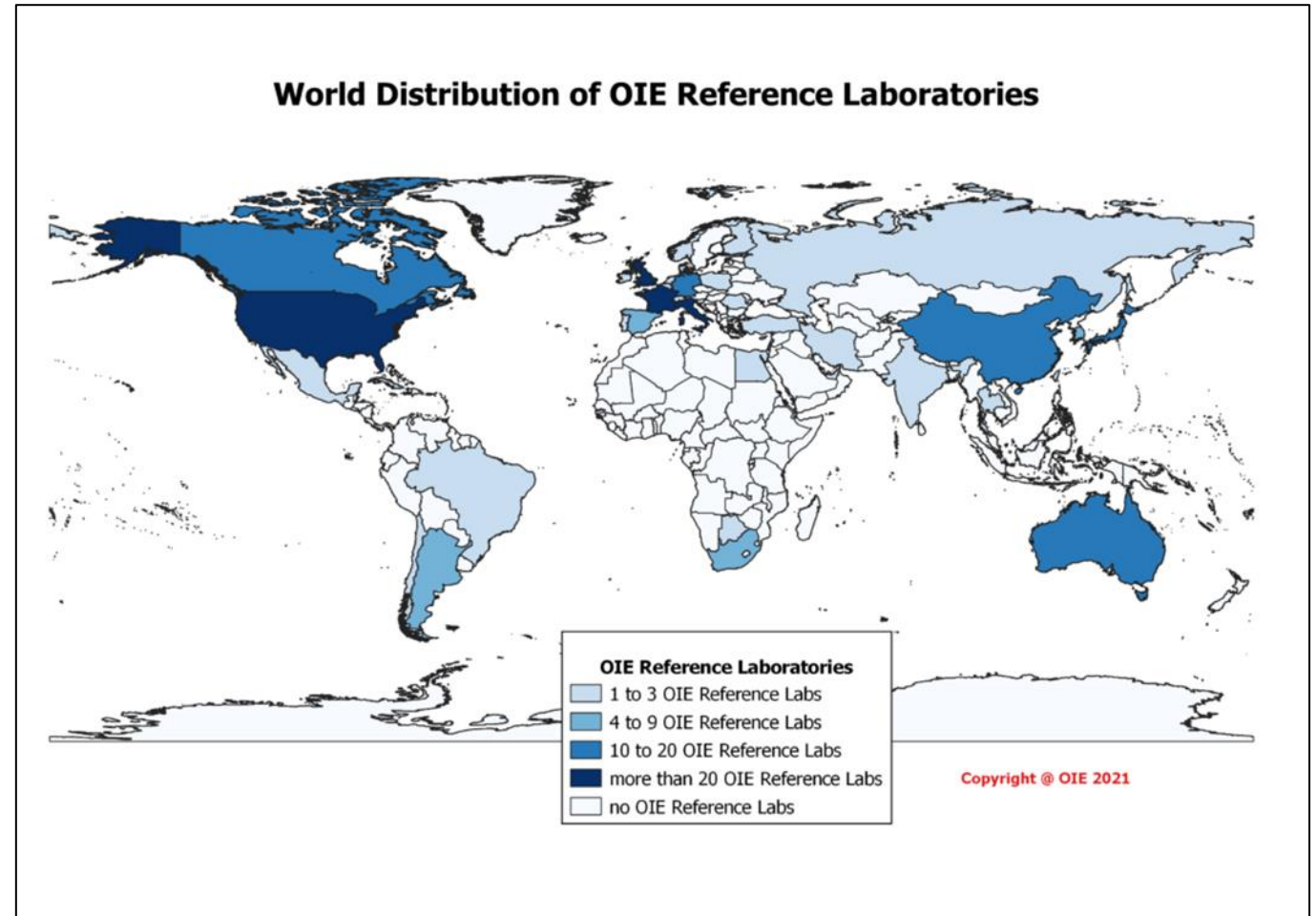
Overview of Reference Centres

- An OIE Reference Centre is designated either as:
 - OIE Reference Laboratory, the principal mandate of which is to function as a world reference centre of expertise on designated pathogens or diseases
 - OIE Collaborating Centre, the principal mandate of which is to function as a world centre of research, expertise, standardisation of techniques and dissemination of knowledge on a specialty within a focus area relating to the management of general questions on animal health issues

329 Reference Centres	
264 Reference Laboratories	65 Collaborating Centres

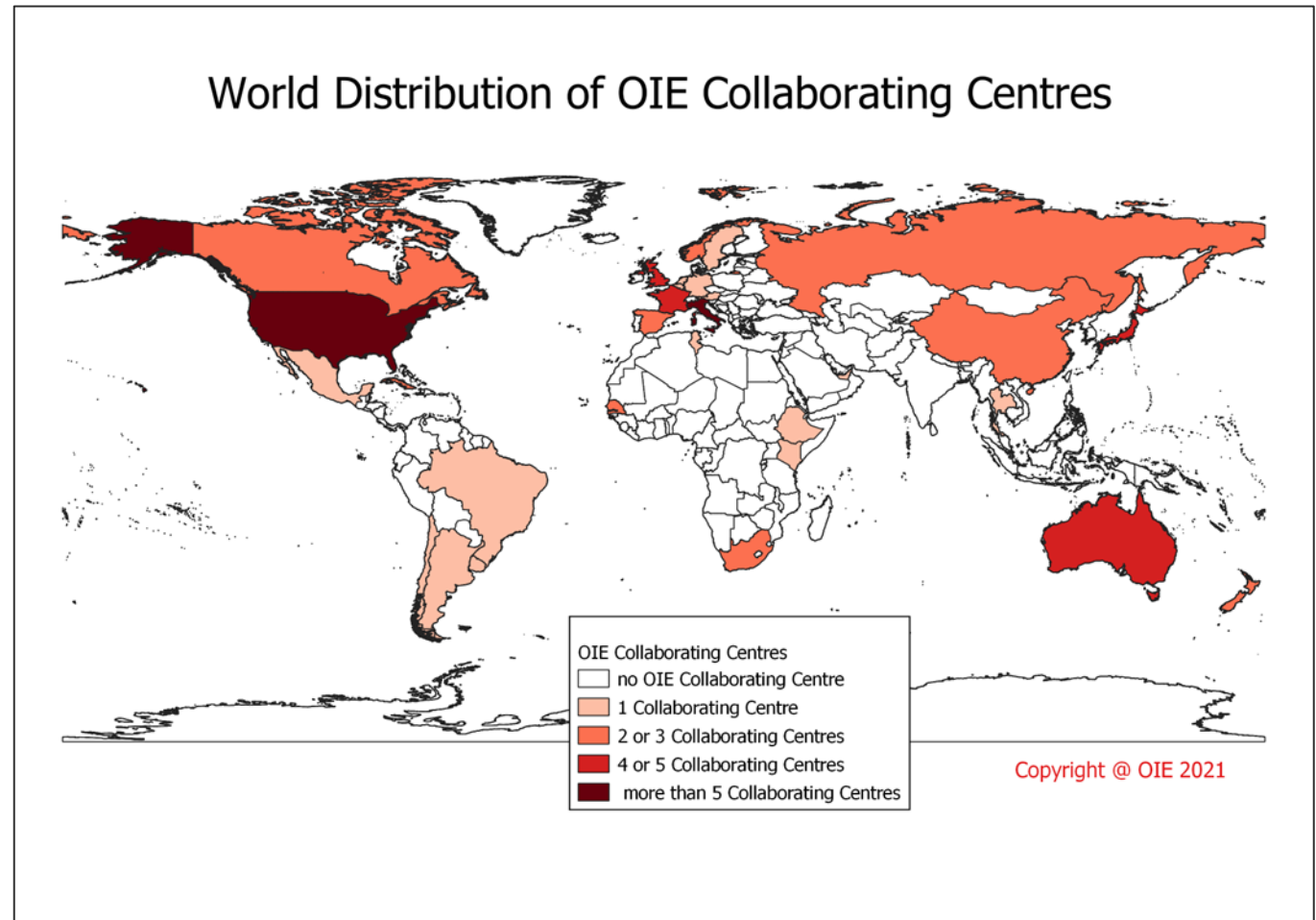
Global distribution of OIE Reference Laboratories

- OIE Reference Laboratories are designated to pursue all the scientific and technical problems relating to a named disease.
- The Expert should be a leading and active researcher to provide scientific and technical assistance and expert advice on topics linked to diagnosis and control of the disease
- In 2021, there were 264 OIE Reference Laboratories covering 109 diseases or topics in 37 countries
- <https://www.oie.int/en/what-we-offer/expertise-network/reference-laboratories/>



Global distribution of OIE Collaborating Centres

- Collaborating Centres are designated for a specific sphere of competence (focus area) relating to the management of general questions on animal health issues
- In 2021, there were 65 Collaborating Centres in 31 countries
- <https://www.oie.int/en/what-we-offer/expertise-network/collaborating-centres/>



Regional distribution of Reference Centres

FIGURES FROM END MAY 2021			
Region	Reference Laboratories	Collaborating Centres	Total
Africa	12	7	19
Americas	57	19	76
Asia, Far East & Oceania	58	12	70
Europe	131	26	157
Middle East	7	1	8

List of Reference Laboratories for Equine diseases

- African Horse Sickness (UK, Spain, South Africa)
- Contagious equine metritis (France, UK, USA)
- Dourine (France)
- Equine infectious anaemia (China, USA, Italy)
- Equine influenza (Japan, USA, Ireland)
- Equine piroplasmiasis (Japan)
- Equine rhinopneumonitis (Ireland, USA)
- Equine viral arteritis (UK, USA)
- Glanders (France, Germany, UAE)

Role of Reference laboratories as part of their Terms of reference

Expert Centres for animal diseases

- Under the responsibility of an expert:
 - To use, promote and disseminate **diagnostic methods** validated according to OIE Standards
 - To recommend the prescribed and **alternative tests or vaccines** as OIE Standards
 - 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 diseases
 - To develop, standardise and validate according to OIE Standards **new procedures for diagnosis** and control of the designated pathogens or diseases
 - To provide **diagnostic testing facilities**, and, where appropriate, scientific and technical advice on disease control measures to OIE Member Countries
 - To carry out and/or **coordinate scientific and technical studies** in collaboration with other laboratories, centres or organisations

Role of Reference laboratories as part of their Terms of reference

- To collect, process, analyse, publish and **disseminate epizootiological data** relevant to the designated pathogens or diseases
- To provide scientific and technical **training** for personnel from OIE Member Countries
- To maintain a system of **quality assurance, biosafety and biosecurity** relevant for the pathogen and the disease concerned
- To organise and participate in **scientific meetings** on behalf of the OIE
- 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
- To organise **inter-laboratory proficiency testing** with laboratories other than OIE Reference Laboratories for the same pathogens and diseases to ensure equivalence of results
- To place expert **consultants** at the disposal of the OIE

→List of new Reference Laboratories adopted by resolution annually by the World Assembly of Delegates.



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Terms of reference of Collaborating Centres

Centres of excellence on horizontal topics

- Provide services to the OIE in particular within region, in support of **implementing OIE policies**
- Contribute to the **development of procedures** to update and promote OIE international standards and guidelines
- Carry out and/or coordinate **scientific and technical studies**
- Collect, process and analyse, **publish** and disseminate data
- Provide scientific and technical **training**
- Organise and host **scientific meetings** in collaboration with the OIE
- Maintain existing **expertise** in particular within its **region**
- Establish and maintain a **network** with other Centres
- Place expert **consultants** at the disposal of OIE

→ List of new Collaborating Centres adopted by resolution annually by the World Assembly of Delegates. Also the Regional commission needs to approve.

→ Designated for five year term and approved with a five year work plan. Review at the end of the term for renewal.



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OIE CCs Focus areas and mapping exercise

- **Laboratory expertise**
 - Biorisk management, quality management, biobanking, genomics and bioinformatics, LIST, validation procedures
- **Training and education**
 - Undergraduate/post graduate education and training, veterinary services capacity building
- **Animal Health Management**
 - Disease control, risk assessment and preparedness, emerging diseases, zoonotic diseases, epidemiology, modelling, surveillance, biothreat reduction
- **Animal Production**
 - Animal welfare, animal production food safety, safety of animal feed
- **Veterinary Products**
 - Vaccines, diagnostics (kits) and drugs
- **Wild life health and biodiversity**
 - Wildlife health, climate change and biodiversity, drivers for emerging risks

→ **Mapping exercise** done by the Commission to align the existing/new Centres according to above criteria

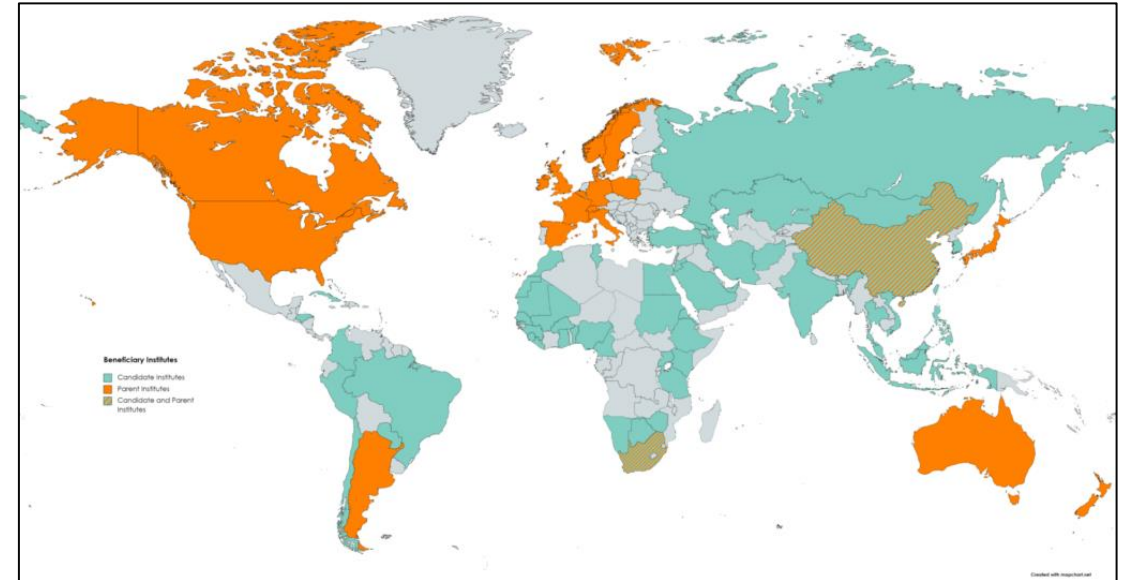
RCs - Implementation of Standard Operating procedures

- In-depth review of all annual reports submitted by Reference labs and Collaborating Centres
 - To ensure that each laboratory/Centre is fulfilling the ToR to the benefit of OIE Members
 - Important criteria – Performance related to international activities including diagnostic and training activities
 - Labs/Centres showing low level of activity asked for explanation and feedback
 - Delegates in copy of the correspondences
 - Delisting procedures initiated for those not complying

The Commission reviews every year the Labs/Centres where the activities are minimum, nationally driven without international collaboration, quite narrowly focused and not covering a broad range of activities as described in the ToR.

OIE Laboratory twinning programme

- The OIE Laboratory Twinning Programme has been in place since 2006 and directly supports OIE's strategy to improve global capacity for disease prevention, detection, and control, through capacity building and networking.
 - Enables the OIE to use its network of Reference Laboratories and Collaborating Centres (referred as Parent institutes) to assist "Candidate" institutes wishing to improve their capacity and scientific expertise
 - The aim is to strengthen national and regional laboratories capabilities, and for some of the Candidate Institutes to become OIE Reference Laboratories and Collaborating Centres for the benefit of their country and region.
 - Provide mutual benefits for Parent and Candidate Institutes, including the creation of joint research opportunities, establishment of research networks and sustainable capacity building
 - Now more countries have access to high quality diagnostic testing and improved technical capability, thus facilitating early disease detection and its rapid control



OIE Laboratory twinning programme

	Disease	Parent	Candidate	End year
PROJECTS COMPLETED				
1	African horse sickness	UK	Morocco	2012
2	Equine influenza	Ireland	China	2015
3	Equine influenza	UK	India	2016
4	Equine piroplasmosis	Japan	India	2012
5	Glanders	Germany	India	2016



THANK YOU



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