

World Organisation for Animal Health

Australian Aid

SEACFMD

SEACFMD Laboratory Network Meeting

Laboratory capacity building (PVS)

WOAH SRR SEA

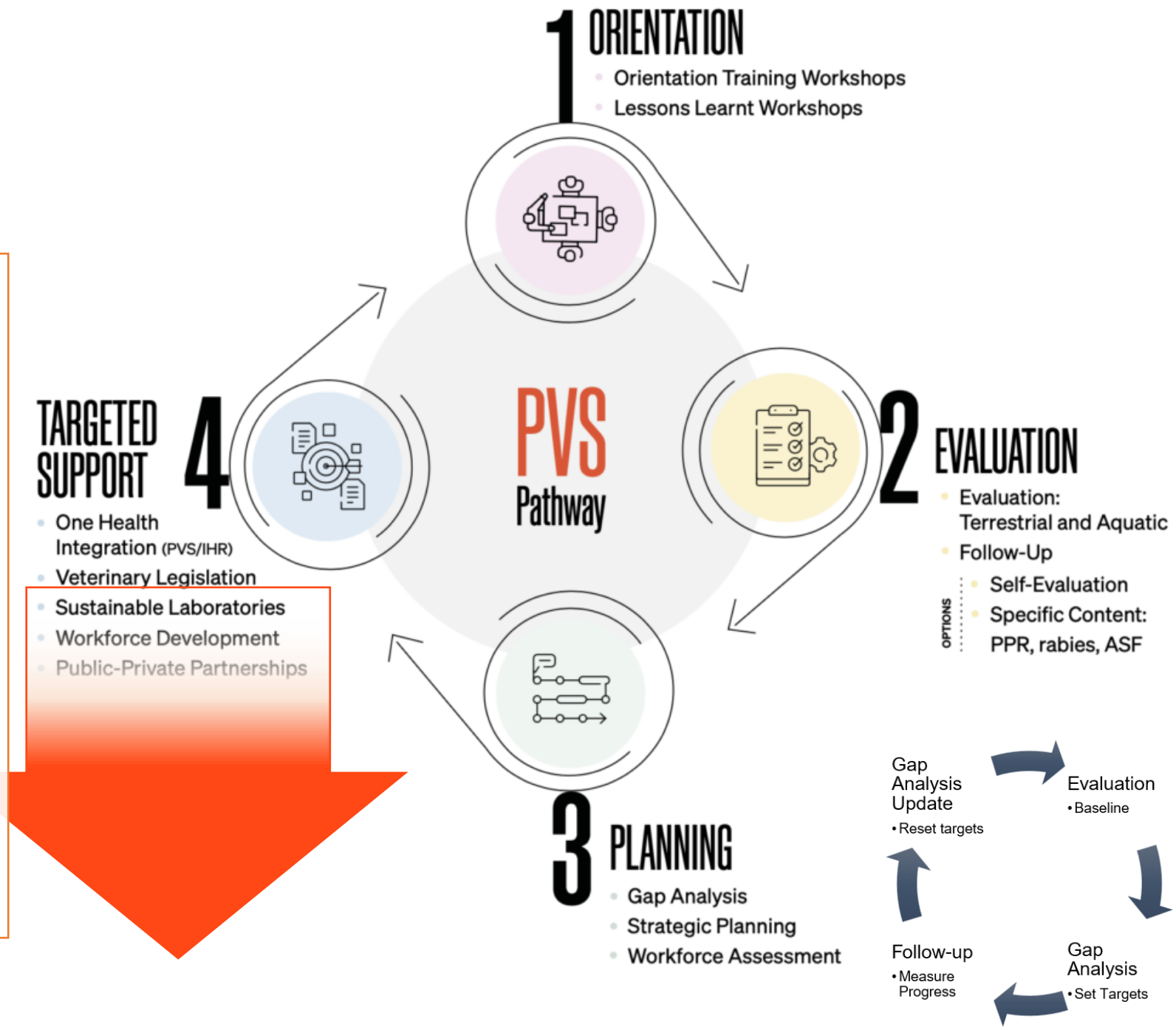
Acknowledgement :
Jennifer Lesley, Valentyna Sharanda, Maho Urabe, Bolortuya Purevsuren, Karma Rinzin and Ashish Sutar

10-11 November 2026
Manila, The Philippines

PVS tool

PVS benefits to Vet. Services

- Provides a **series of sequential capacity building activities** for the systematic strengthening of Veterinary Services and Aquatic Animal Health Services.
- Encourages **continuous learning and improvement** within national Veterinary Services throughout its four stages
- Support national Veterinary Services' capacity to **comply with WOAH international standards**



Globally, the current annual budget allocated to Veterinary Services represents **0.05% of total national GDP** on average and roughly **1% of national agriculture GDP**.

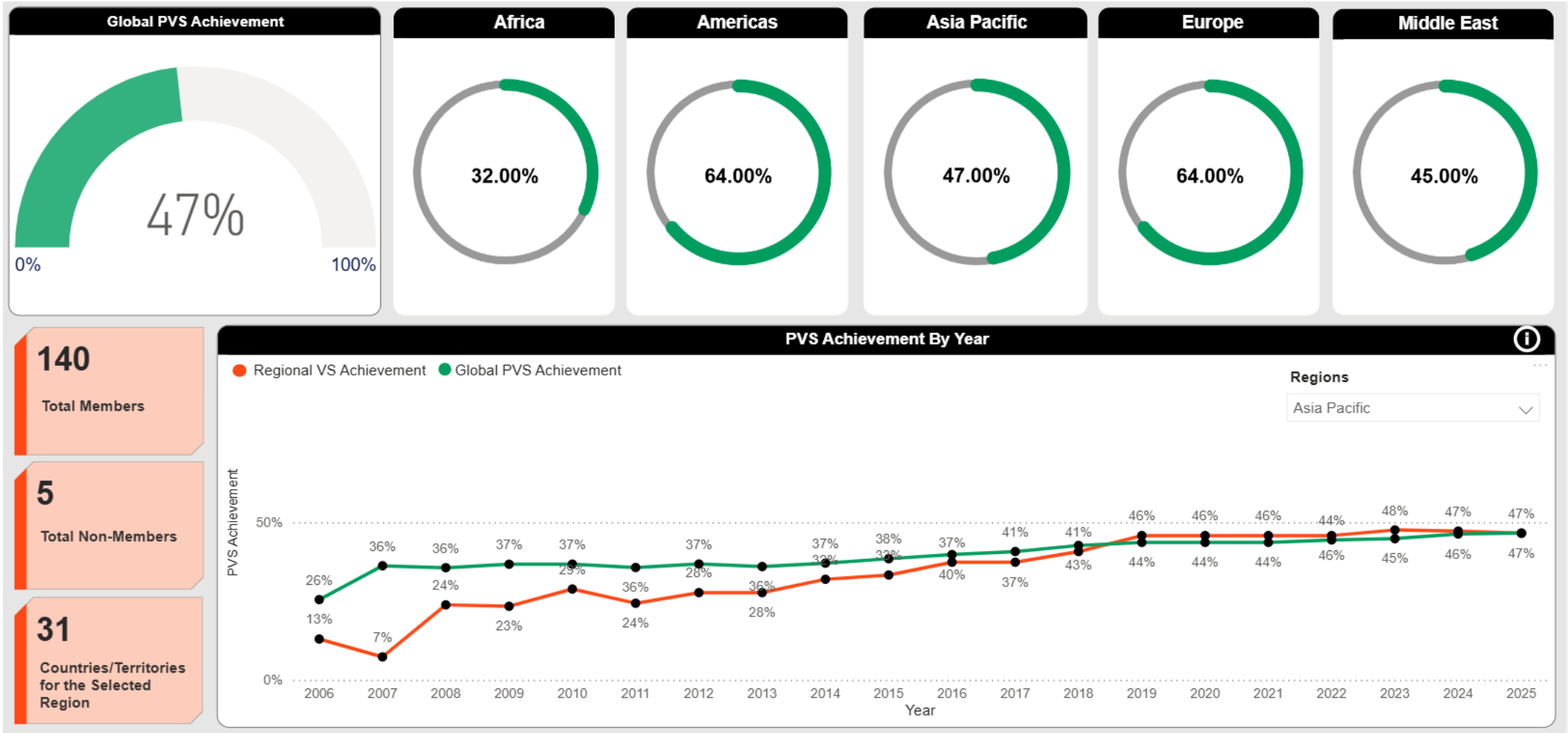
Based on Veterinary Services optimized costing exercises* in 91 Members, the **total annual cost of the Veterinary Services amounts to US$ 4.9 billion**.

*conducted using the PVS Gap Analysis

N=91 WOAH Members: Africa 45, Americas 13, Asia Pacific 19, Europe 9, Middle East 5

In Asia Pacific, overall capacity of the veterinary services has increased over time and is in line with the global benchmark.

However, when you dig into the capacity of the national veterinary laboratory system, different trends emerge.



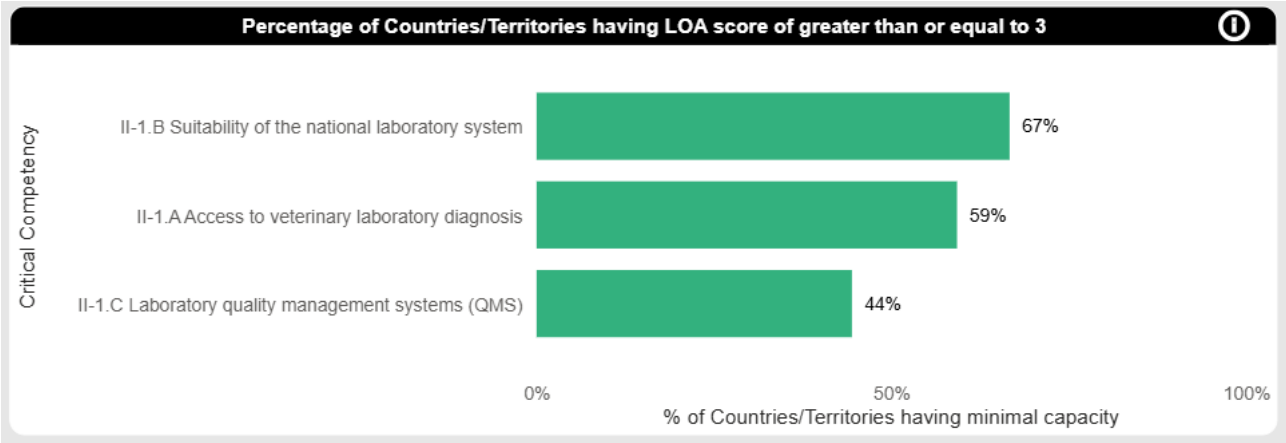
Out of 31 Members in the Asia Pacific Region that have had 1 Evaluation to measure capacity

Source: Members PVS Achievement, Customisable Cohort Analysis, PVS Pathway Information System

67% of Members in the Asia Pacific region have access to and use a laboratory to obtain a correct diagnosis for animal diseases and zoonoses present in the country, and for animal feed safety and veterinary AMR surveillance.

59% of Members in the Asia Pacific region have national laboratory systems that generally meets the needs of the VS. Their resources and organisation are managed effectively and efficiently, but funding is insufficient for a sustainable system, and limits throughput. Some laboratory biosafety and biosecurity measures are in place.

44% of Members in the Asia Pacific region have most major laboratories servicing the public sector VS are using formal QMS. There is occasional use of multi-laboratory proficiency testing programmes.

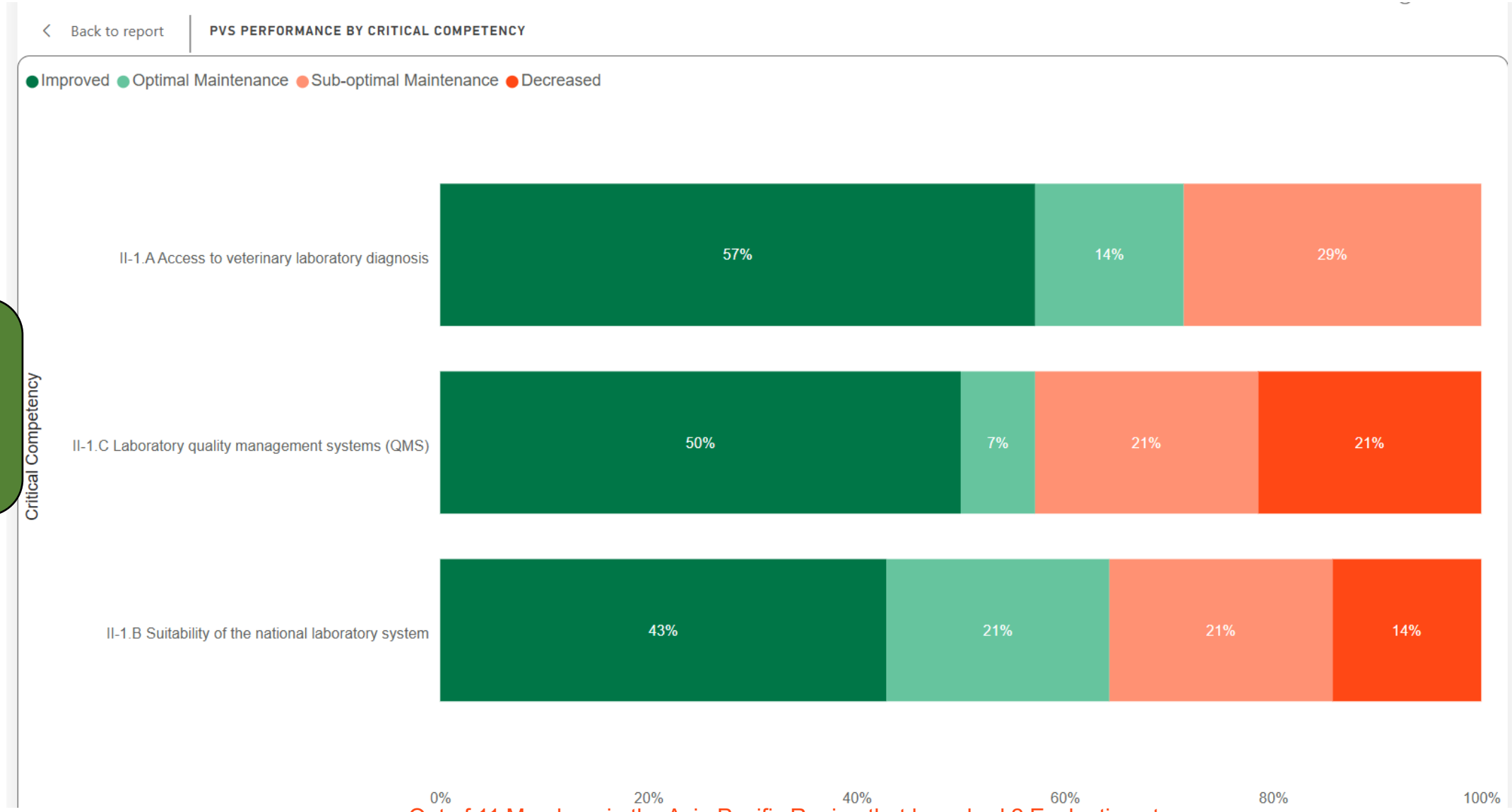


In Asia Pacific, among the Members that have already done PVS Evaluation

Official Use Only

In Asia Pacific, laboratory capacity areas show improvements over time, but quality management systems lag behind

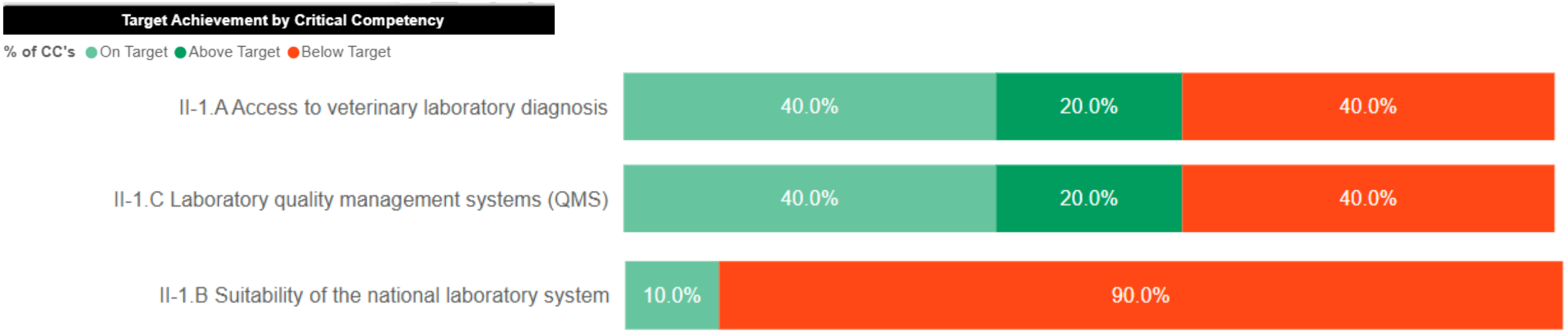
Improvement



Out of 11 Members in the Asia Pacific Region that have had 2 Evaluations to measure progress

Source: Members PVS Performance, Customisable Cohort Analysis, PVS Pathway Information System

The laboratory capacity areas demonstrate positive progress over time, while still facing a number of challenges



Targets set by Member

- Only 10% of Members met their target set to improve how well the national laboratory system meets the needs of the VS
- Management of resources and organisation may face challenges in effectiveness and efficiency
- Funding may be insufficient and throughput may therefore suffer, thus challenging the sustainability of the system
- Biosafety and biosecurity implementation may be lagging behind

Out of 10 Members in the Asia Pacific Region that have had Gap Analysis followed by Follow-up Evaluation

Source: Members PVS Performance, Customisable Cohort Analysis, PVS Pathway Information System

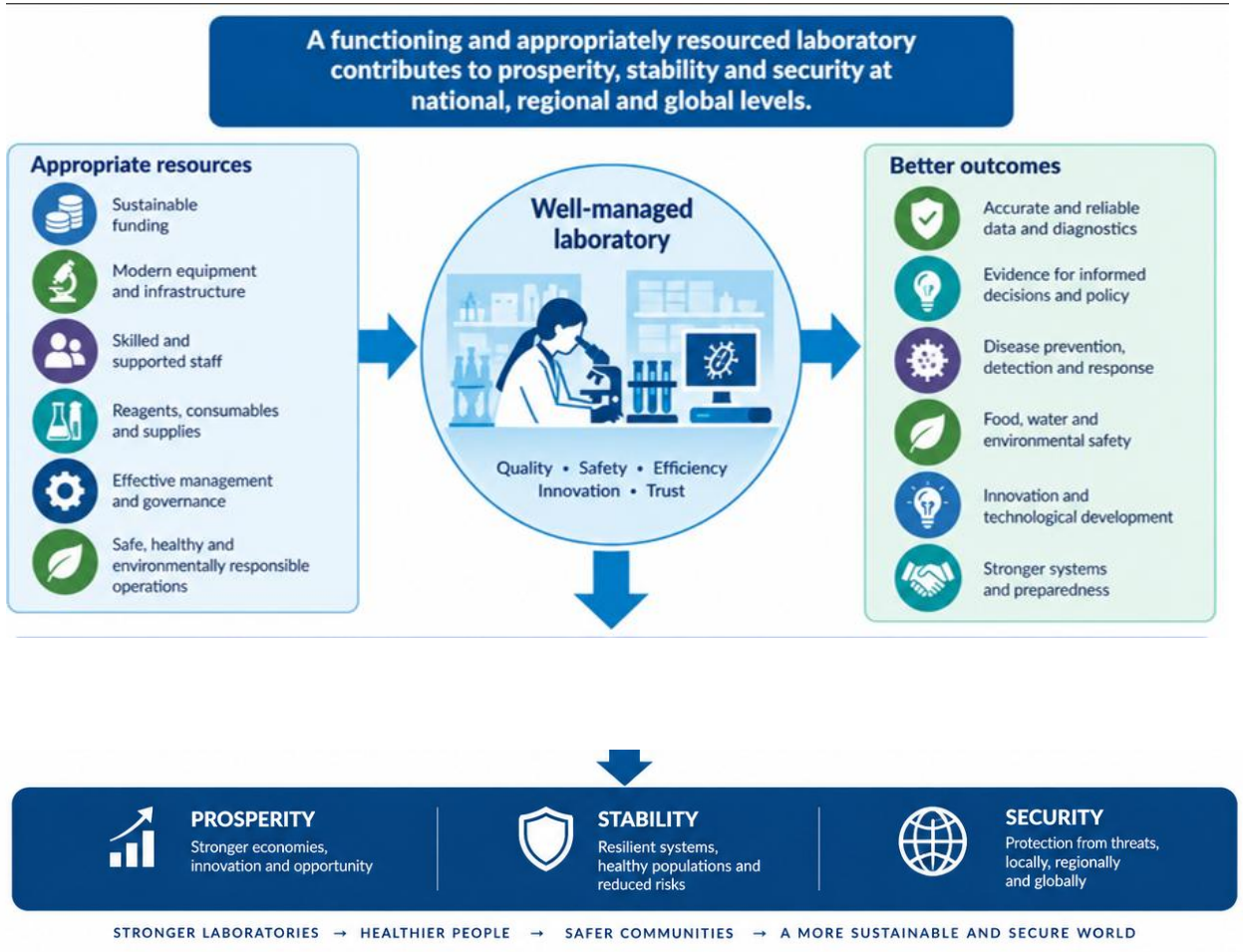
What is a sustainable laboratory network?

A system of laboratories that together continuously deliver specialised services in a manner which:

- Is efficient, timely, accurate, consistent, secure, and safe,
- Is in line with international standards and best practices,
- Is provided at an acceptable cost,
- Responds to clients' needs across sectors (public and/or private), and
- Benefits One Health goals and the overall One Health system.

This system is made up of specialised facilities where the combination of qualified staff, infrastructure, and scientific methods are used to convert financial, human, and material resources into durable outputs, such as reliable test results, health information for the public good, and valuable data.

Ad hoc Group on Sustainable Laboratories



What are the benefits of sustainable laboratories?

Improved biosecurity

by containing pathogens and preventing unauthorised access to reduce the risk of release that might threaten neighbouring human, animal or environmental health

Improved biosafety

by preventing exposure to biological materials

Higher quality of services

by ensuring confidence in laboratory test results to help take sound decisions to prevent disease spread and supporting the provision of accurate and timely data that responds to client demand

Preparedness

by learning from past events and planning responses during "peacetime"

Ensured business continuity

by managing resources and expertise ahead of potential emergencies

There is a lot of work to do!

- Heavy investment in laboratory capacity building and improving performance in the short term has meant that the sustainability of those hard-earned gains in the long term has suffered.
- Traditionally, the most common approaches to laboratory capacity building have focused on technical and scientific strengthening like training, provision of consumables, and capital investments like new laboratory construction and equipment provision.
- They concurrently dismissed underlying strategic, management, and financial conditions, thus failing to address persistent challenges to sustainability.
- Given the lack of data and indicators, it is hard to understand which groups are in most need of support, and which areas require or lack investment.



Laboratory Equipment Management and Sustainability

https://www.woah.org/en/what-we-offer/emergency-preparedness/sustainable-laboratories/



Sustainable Laboratories

Over the course of history, disease diagnosis provided by health laboratories has emerged as a pillar of pandemic preparedness. Thanks to their experience in dealing with large-scale epidemics in animal populations, providing expertise on disease origin and

WOAH
World Organisation for Animal Health

WOAH envisions a world where laboratories ensure that Veterinary Services have access to quality diagnosis through a sustainable network of laboratories, capable of accurate'y identifying and reporting infections and other hazards.

THE VISION

A sustainable network of laboratories, ensuring Veterinary Services have access to quality diagnosis, and capable of accurately identifying and reporting infections and other hazards.

SUSTAINABLE NETWORK OF LABORATORIES

- Quality systems
- Trained personnel
- Adequate infrastructure
- Long-term sustainability

BETTER DIAGNOSIS AND REPORTING

- ✓ Accurate detection of infections and other hazards
- ✓ Timely and reliable reporting
- ✓ Stronger Veterinary Services and safer animal and public health

HOW WOAH'S SUSTAINABLE LABORATORIES TARGETED SUPPORT MAKES IT HAPPEN

1. DATA-GATHERING
Collects information from countries and laboratories (e.g. capacity assessments, performance, needs, challenges, good practices).

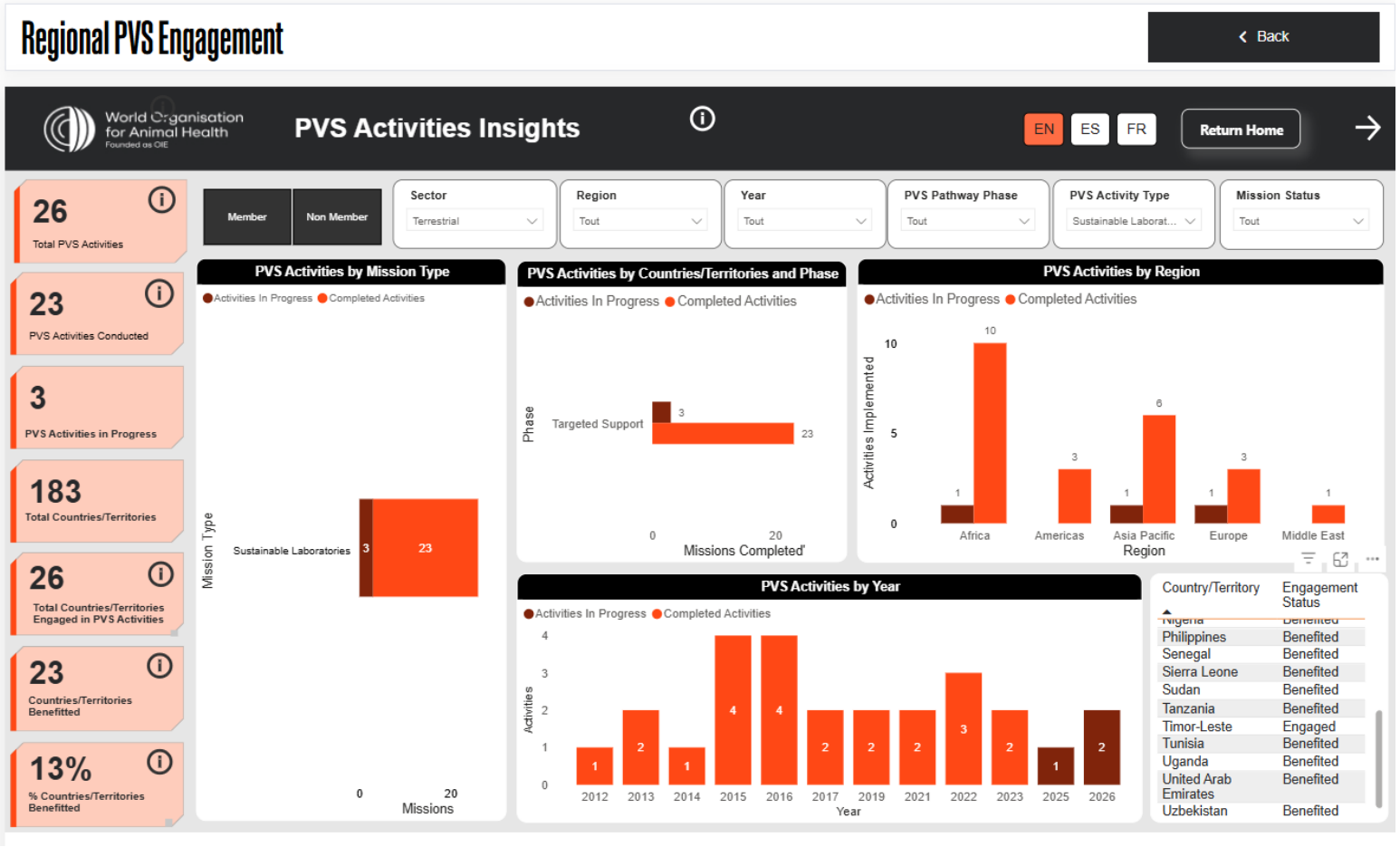
2. ANALYSIS
Examines the data to identify trends, gaps, priorities and opportunities for a sustainable laboratory network.

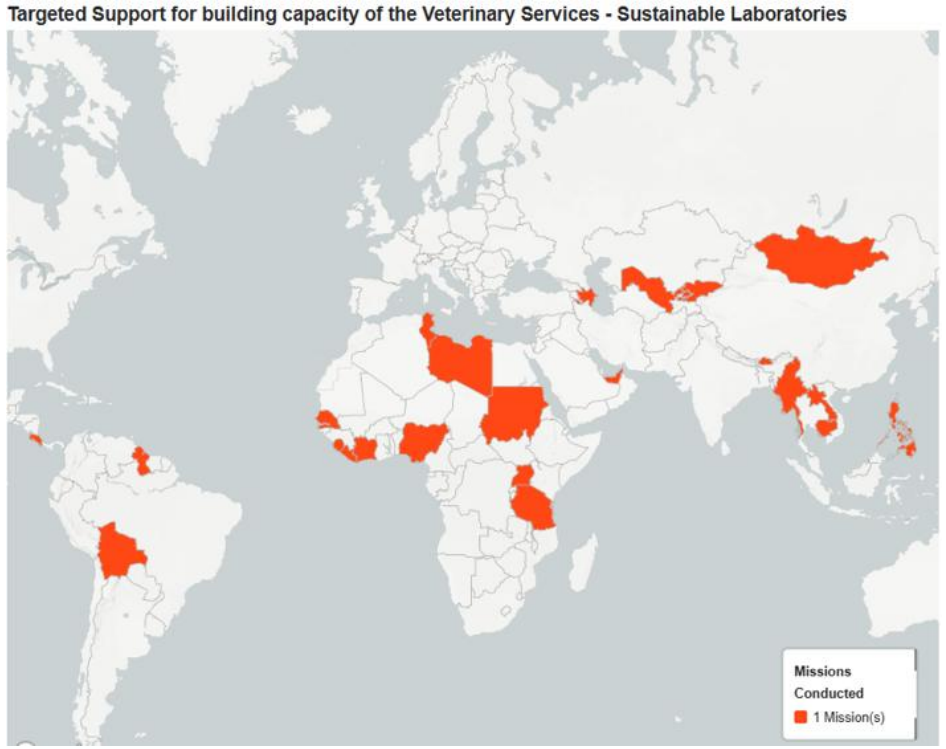
3. RECOMMENDATIONS
Provides evidence-based recommendations to strengthen sustainability (e.g. technical assistance, capacity building, policy support, investment needs).

4. TARGETED SUPPORT
Guides WOAH's support to countries and partners to implement the recommended actions and build long-term resilience.

Sustainable laboratories today. Safer animals, healthier people tomorrow.

PVS IS : Global and Regional State of Play for PVS Sustainable Laboratoires missions





- ***23 missions implemented globally***

Regional State of Play for PVS Sustainable Laboratories missions - Asia

Home / Mission Management

Mission Management

Add New Mission + | Back

Filters

Region: Asia Pacif... | Select 1 or more countries | All Years

All Languages | All Mission Types: Sustainable Laboratori... | All Mission Status

Advanced Filters

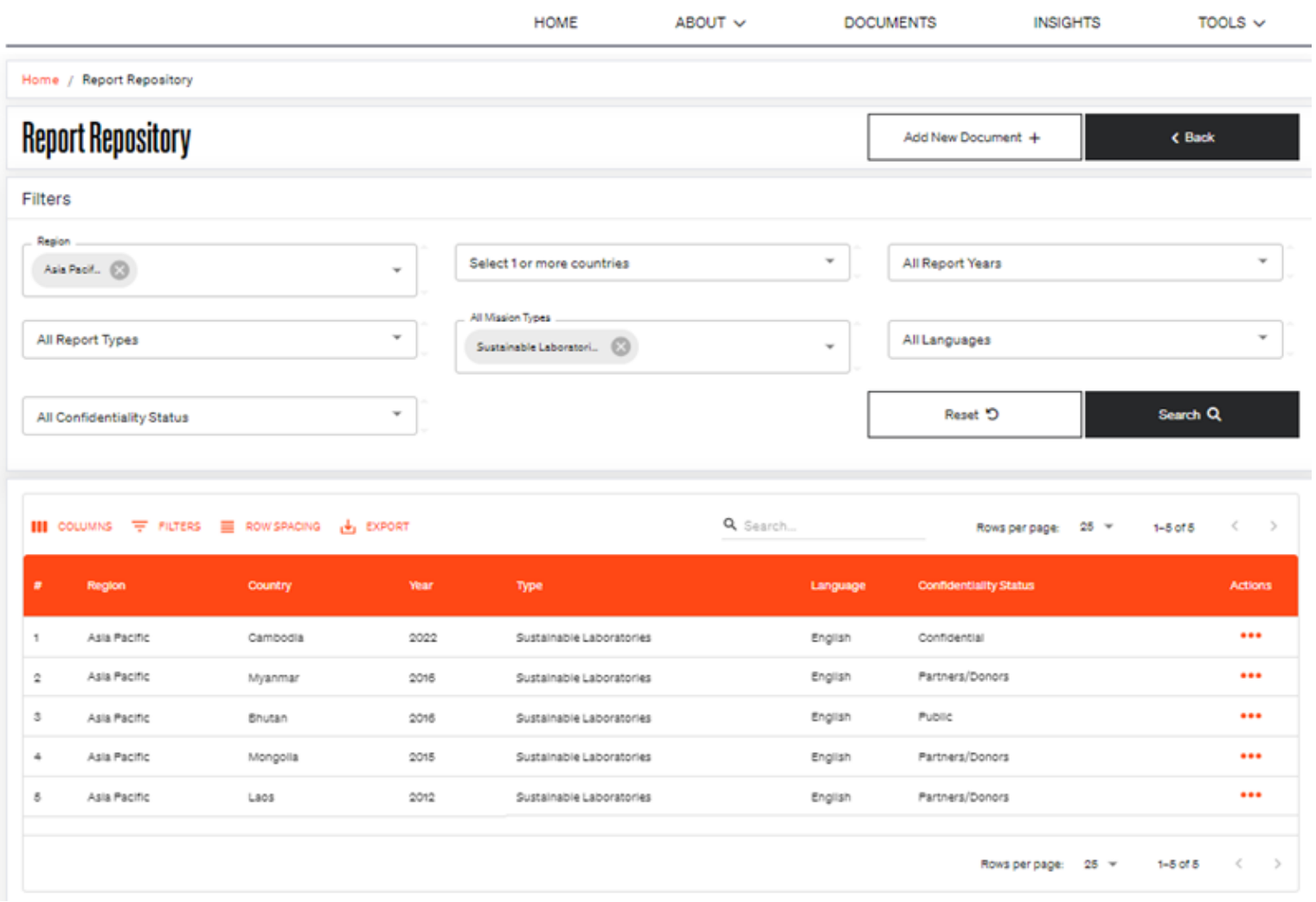
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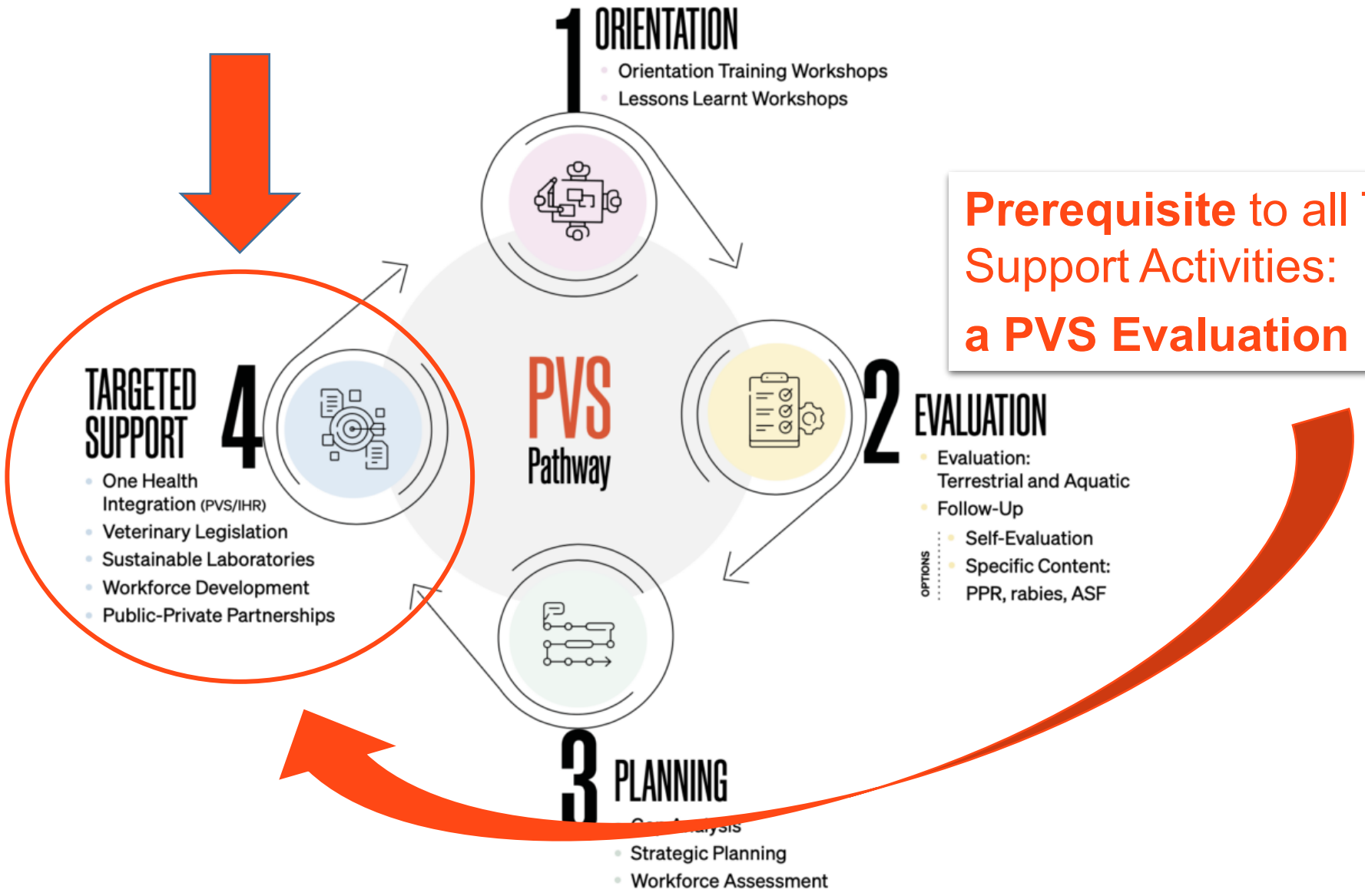
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#	Code	Region	Country	Language	Type	Sequence	Specific Content	Start Date	End Date	Start Year	Request Year	Status
1	PVS/10/359	Asia Pacific	Philippines	English	Sustainable Laboratories	N/A		02 Oct 23	13 Oct 23	2023	2021	Active
2	PVS/10/566	Asia Pacific	Cambodia	English	Sustainable Laboratories	N/A		12 Sep 22	23 Sep 22	2022	2021	Active
3	PVS/10/262	Asia Pacific	Myanmar	English	Sustainable Laboratories	N/A		25 Mar 16	07 Apr 16	2016	2014	In-Act
4	PVS/10/278	Asia Pacific	Bhutan	English	Sustainable Laboratories	N/A		11 Jan 16	22 Jan 16	2016	2014	In-Act
5	PVS/10/257	Asia Pacific	Mongolia	English	Sustainable Laboratories	N/A		19 Jan 15	30 Jan 15	2015	2014	In-Act
6	PVS/10/381	Asia Pacific	Laos	English	Sustainable Laboratories	N/A		27 Oct 12	06 Nov 12	2012	2012	In-Act
7	PVS/TLS/004	Asia Pacific	Timor-Leste	English	Sustainable Laboratories					0	2024	Active
8	PVS/10/356	Asia Pacific	Thailand	English	Sustainable Laboratories	N/A					2021	In-Act
9	PVS/10/405	Asia Pacific	Iran	English	Sustainable Laboratories	N/A					2013	In-Act



Laboratory reports status





Prerequisite to all Targeted Support Activities:

a PVS Evaluation

Sustainable Laboratories Mission

Support leadership • Build capacity • Strengthen sustainability

Why?

To help Laboratory and Veterinary Services' leadership provide laboratory services when and where they are needed, and to empower veterinary and laboratory personnel to improve the sustainability of services through a better understanding of laboratory functions in their country/territory.



What happens?

Experts and Members work together

Experts work collaboratively with Members during a Sustainable Laboratories Mission.

Assess and evaluate

They assess the laboratory network's sustainability requirements and identify gaps and needs.

Identify critical actions and strategies

They highlight key actions and recommend strategies for sustainable improvements.

What actions are taken?

Ensure services are available when and where needed

Improve access, logistics and coordination.

Strengthen laboratory and veterinary leadership

Build management, governance and oversight capacity.

Empower staff

Provide training, tools and support for laboratory and veterinary personnel.

Improve sustainability

Enhance resources, infrastructure, processes and collaboration across the laboratory network.

The result

A stronger, more sustainable laboratory network

- Meets national needs
- Supports effective Veterinary Services
- Improves animal, human and environmental health
- Builds resilience and preparedness

Benefits for the Laboratory and Veterinary Services

- Better decision-making and governance
- Improved service delivery and quality
- Enhanced workforce capacity
- Greater efficiency and cost-effectiveness
- Long-term sustainability
- Healthier animals, people and environment

PVS Evaluation report

Most of the analyses are done according to the national disease or food safety official programmes, very few demands come from practitioners'' initiative. Quite a number of the analyses rely on rapid tests.¶

Strengths:¶

- Good new equipment provided by external funding;¶
- The facilities of the laboratories visited are clean;¶
- There is a plan to modernise the laboratory network on the sustainable basis;¶
- The old techniques maintained in the laboratories are well known by the staff;¶
- Personnel is trained on the use of new techniques.¶

Weaknesses:¶

- The number of certain tests remains low, probably inadequate to maintain adequate skills the staf;¶
- No capacity for anatomic-pathology or chromatography around the country;¶
- Sampling kits, methods and transportation induce doubts on quality of sampling; ¶
- Old methods and equipment;¶
- Limited capacity in food safety;¶
- The use of old methods poses biosecurity risks when manipulating dangerous pathogens (anthrax, rabies…).¶

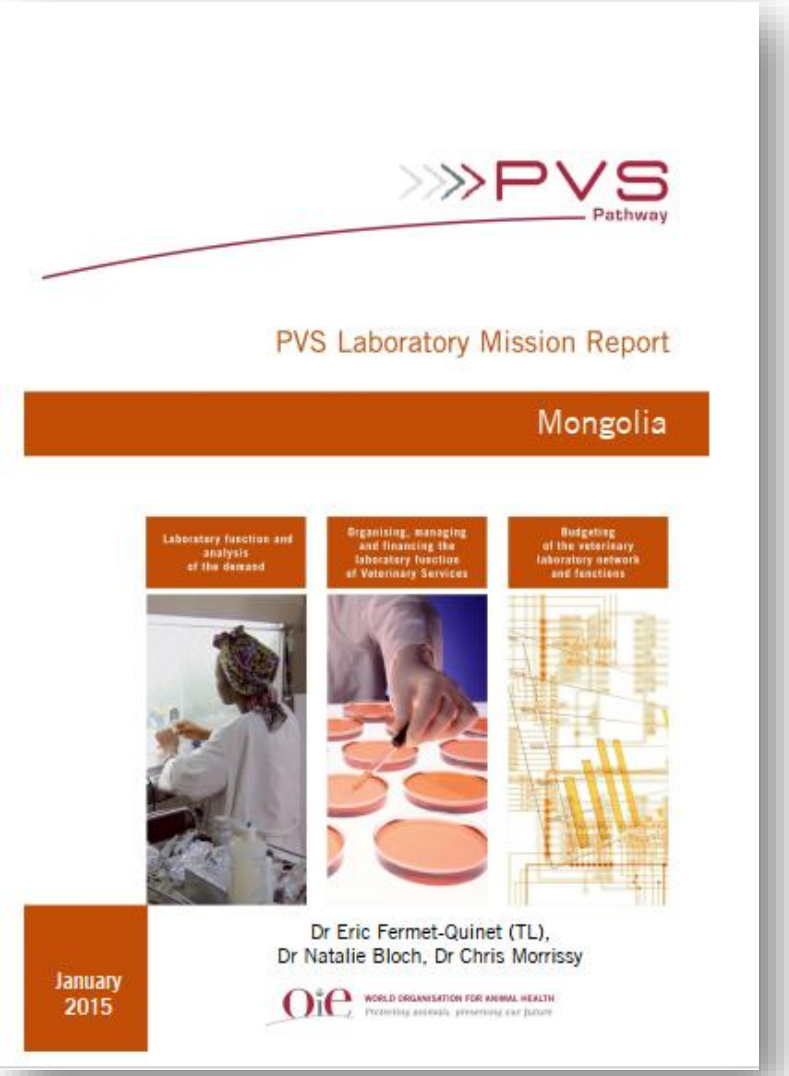
Recommendations:¶

- Define more clearly the role of the different laboratories;¶
- Reorganize the laboratory network, possibly with a support of an OIE PVS Pathway Laboratory mission in order to determine a strategy for sustainable and effective laboratory network;¶
- Ensure capacity of anatomic-pathology and biochemistry in central veterinary laboratories (see residue testing II-10);¶
- Train field veterinarians for necropsy and taking adequate samples;¶
- Reorganize the sampling methods and use modern kits and labelling methods of samples for national programmes;¶
- Implement a laboratory information system, which should ideally be connected with the RADIS/NADIS databases.¶

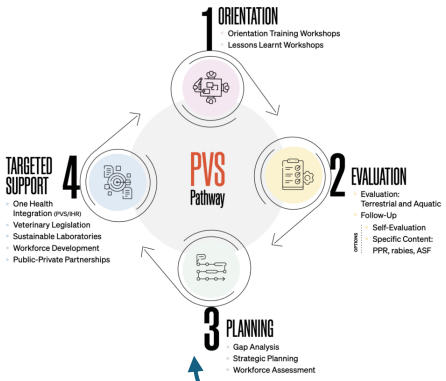






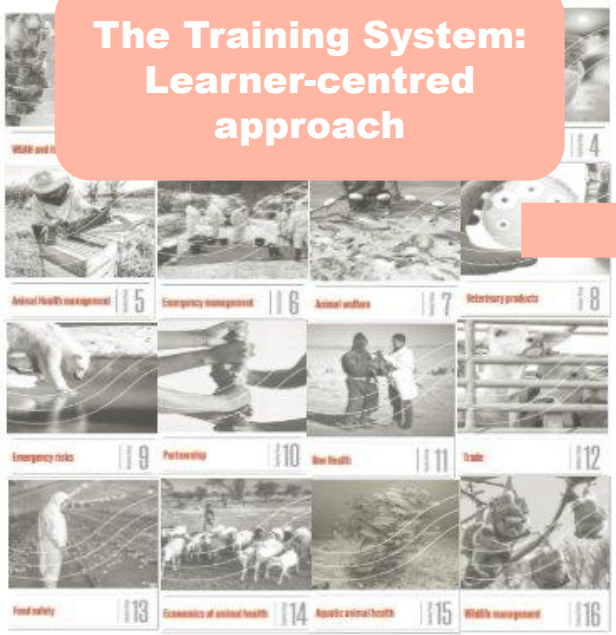


WOAH's Capacity Building Framework



PVS Monitoring Cycle: Evaluation and Planning

The Training System: Learner-centred approach



Government

Health System

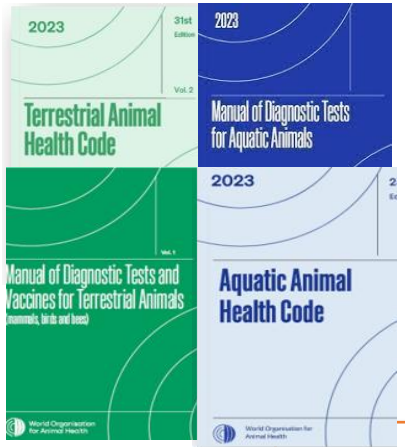
Individual

Level of Intervention

Targeted Support for capacity building

- **Legislation**
- **Public-Private Partnerships**
- **Workforce Development**
- **Sustainable Laboratories**
- **One Health Integration**

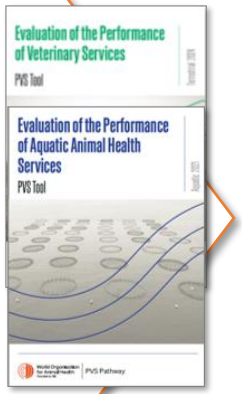
Why individual competencies are important to improve Veterinary Services?



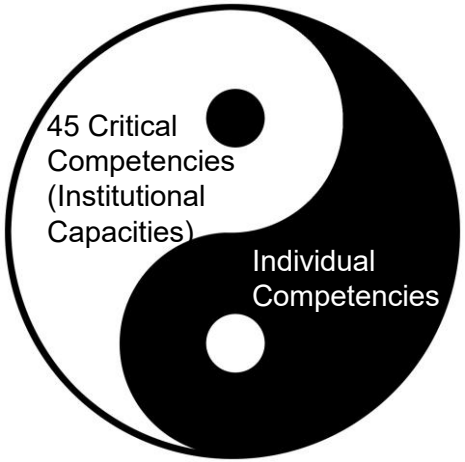
WOAH Manuals and Codes

Section 3 of *Codes*

Quality of Veterinary Services / Aquatic Animal Health Services



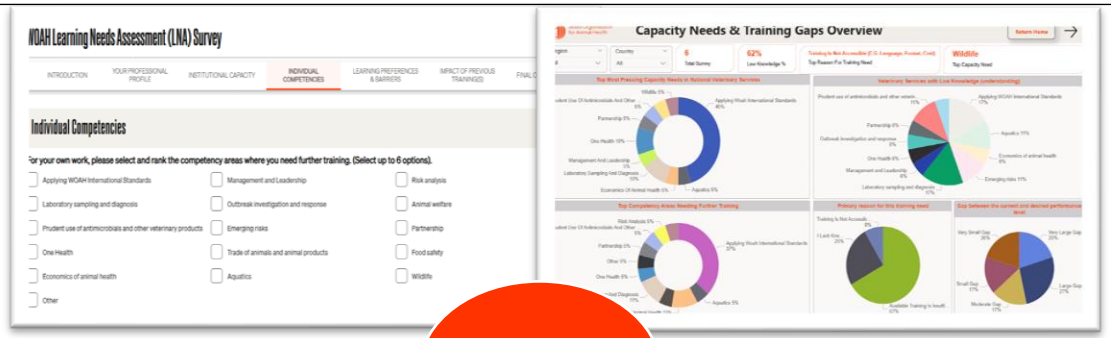
PVS Pathway

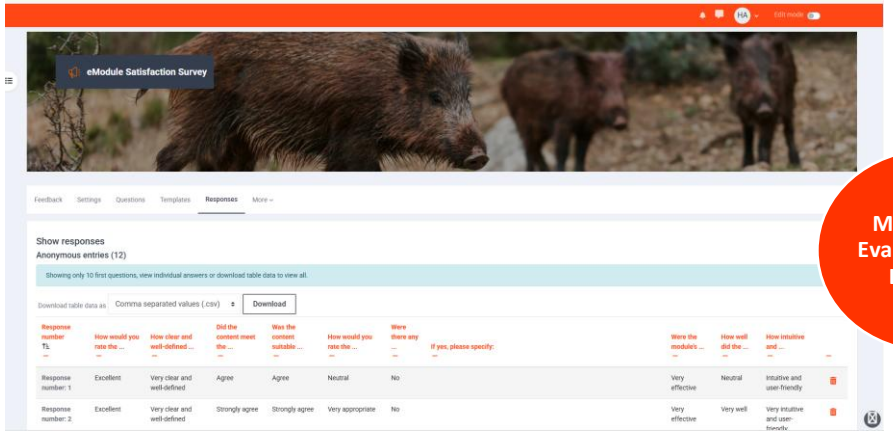


Competency Based Training Framework 8/16



Training Cycle

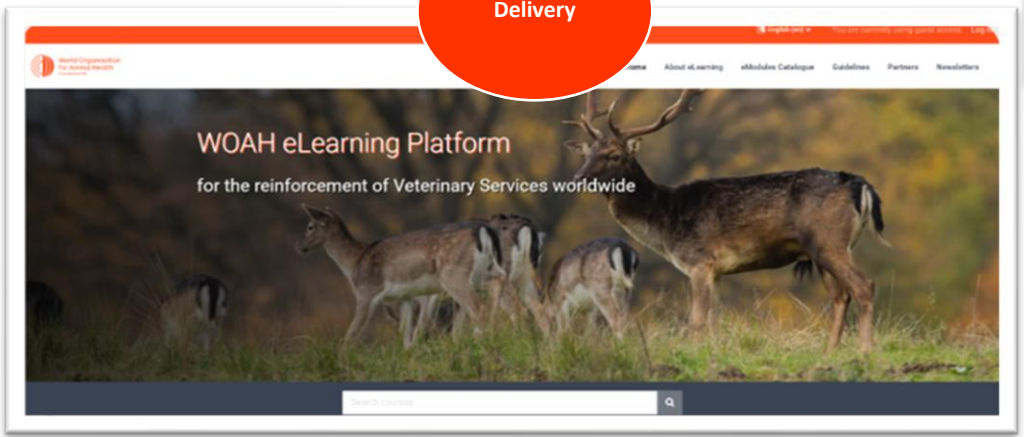












The role of laboratories in outbreak investigation

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The Role of Laboratories in Outbreak Investigation

This module examines the critical role of laboratories throughout the outbreak investigation process. Learners will explore the key stages of outbreak investigations, the functions of multidisciplinary response teams, and how laboratory diagnostics, surveillance, data interpretation, and cross-sector collaboration contribute to timely and effective outbreak detection and response.

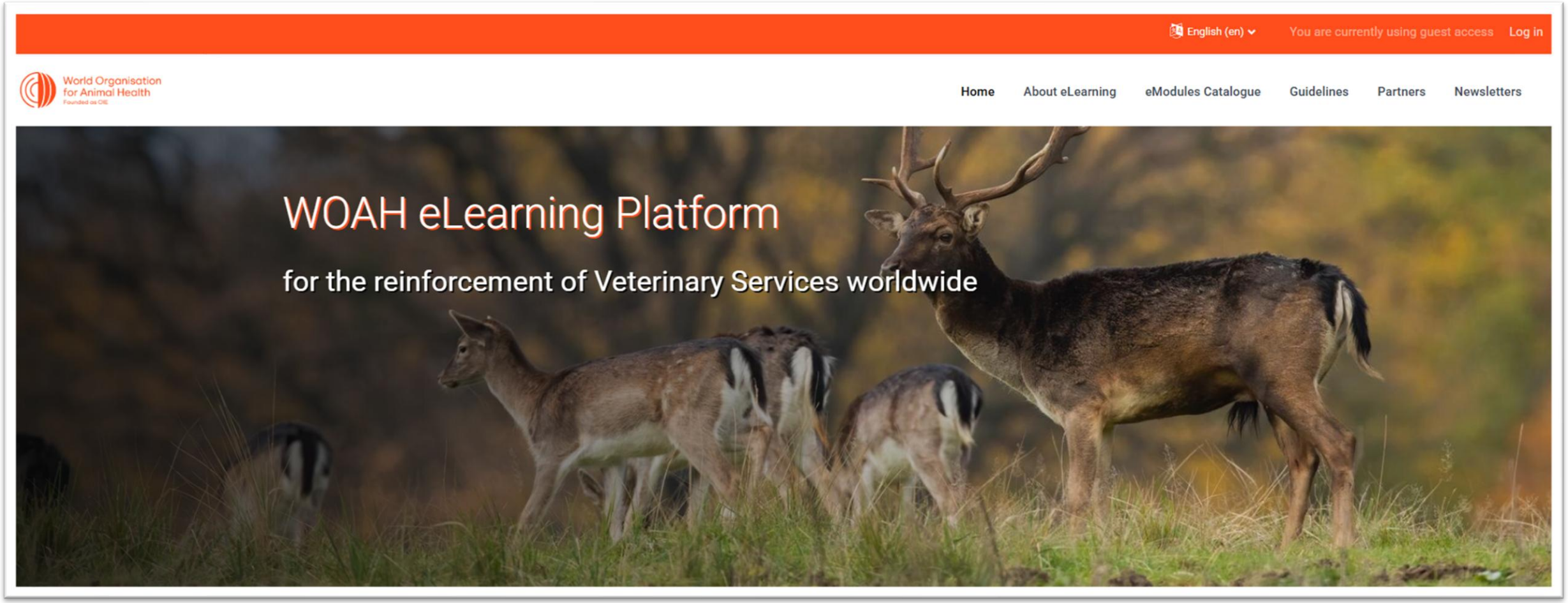
Duration: 2 hours
Enrollment method: self-enrolment
Level: Expert



The Role of Laboratories in Animal and Public Health Surveillance

This module introduces the role of laboratories in animal and public health surveillance. Learners will explore surveillance concepts, approaches and cycles, laboratory contributions, diagnostic strategies, and the use of surveillance data for evidence-based decision-making, in line with GLLP core competencies and a One Health approach.

Duration: 3 hours
Enrollment method: self-enrolment
Level: Expert



WOAH's Competency-Based Training System: Your journey to stronger Veterinary Services Starts **HERE**!

SCAN ME!

Capacity Building: Diagnosis, Surveillance and Quality Assurance



TADs diagnosis training

2025: 5 Members
Malaysia · Mongolia · Myanmar · Philippines · Thailand
2026: * Members
Indonesia · Lao PDR · Malaysia · Mongolia · Myanmar · Philippines · Thailand · Viet Nam

Diagnostic preparedness

SAT1 diagnostic primers and probes provided to six Member Countries through the Pak Chong FMD Diagnostic Laboratory.



Surveillance training

Training on animal disease surveillance to strengthen early detection and response.

12-13 November, Manila

Proficiency testing

Regional FMD PT support in 2024–2025 through Pak Chong; international PT support planned for 2027, with WRLFMD supporting six laboratories.

Next step | 2027

FMD diagnostic training planned in collaboration with FAO RAP and the REG.

Support Sample shipment to Regional/WRLFMD

WOAH Veterinary Laboratory Focal Points Seminar/Collaborating Centres

Geelong, Australia • 19–22 October 2026 • WOAH and regional partners

19–21 October | WOAH Veterinary Laboratory Focal Points Seminar

Regional seminar bringing together laboratory focal points across Asia and the Pacific. Focus: WOAH standards, quality management, diagnostic harmonisation, laboratory networks and capacity building.

22 October | 5th Regional Meeting for Collabrating Centres

Hybrid meeting reviewing the WOAH Reference Centre Programme, newly designated Centres, shared experiences, regional collaboration and WOAH's coordination role.

PARTICIPANTS:

WOAH Laboratory focal points from Asia and the Pacific regiona

WOAH Collaborating Centres /reference laboratories



Topics Discussed :

WOAH standards

Member expertise and consultation to help ensure standards are practical and applicable.

Laboratory networks

Move from connections to practical collaboration: share information and samples, harmonise methods, conduct PT and joint research.

Quality assurance

Quality management, test validity, national quality control, proficiency testing and inter-laboratory comparisons.

Capacity development

Training, technical exchange, mentorship, sustainable laboratory systems and regional support.

Summary

- Sustainable laboratory systems are essential to the effective functioning of Veterinary Services and their contribution to animal health including FMD Control.
- The PVS Pathway provides Members with an evidence-based mechanism to identify gaps, establish priorities, mobilise resources and measure progress.
- The challenge ahead is to translate the findings and recommendations into concrete national actions and sustained investments.

From individual laboratories to sustainable laboratory network and

From technical capacity to system sustainability.....

Thank you