

World Organisation for Animal Health

Australian Aid

SEACFMD

SEACFMD Laboratory Network Meeting

Report of the 4th Regional Expert Group (REG) Meeting on FMD Diagnosis

Secretariat (WOAHSRRSEA/ FAORAP)

10-11 November 2023
Manila, The Philippines



- World Reference Laboratory,
- Australian Centre for Disease Preparedness
- Lanzhou Veterinary Research Institute, China
- Pakchong Laboratory for FMD diagnosis, Thailand
- National Institute of Animal Health, Japan
- Observer:
  - Malaysia
  - The Philippines

4th REG Meeting on FMD Diagnosis

Meeting report | 9 November 2026 · Manila, Philippines

WHY THE REG WAS REACTIVATED

Evolving FMD epidemiology, including the spread of SAT1, highlighted the need for stronger regional diagnostic preparedness and coordinated technical support.

MEETING OBJECTIVES

- Review and endorse the REG Terms of Reference and membership
- Discuss emerging diagnostic challenges, particularly SAT1
- Identify Member needs and collaboration opportunities
- Prioritise REG activities and responsible parties

REG DEVELOPMENT: FROM FOUNDATIONS TO REGIONAL ACTION

2017–18

Regional foundations

LabNet and Lab-TAG discussions identified diagnostic capacity needs.

2019

REG established

First and second meetings advanced molecular and serological diagnostic approaches.

2022

Technical review

Pilot testing highlighted variation in sequencing and lineage-specific PCR; harmonisation was recommended.

18 Jun 2026

Special REG session

SAT1 diagnostic challenges and regional preparedness priorities were reviewed.

9 Nov 2026

4th REG meeting

Update the REG framework and agree priority activities, responsibilities and milestones.

Regional diagnostic needs and partner support

Discussion ：Key gaps identified by REG and current support available to Members

PRIORITY GAPS IDENTIFIED

Vaccine effectiveness
Limited post-vaccination monitoring (PVM) and field evaluation.

Virus characterisation
Gaps in genotyping, sequencing and molecular epidemiology.

Diagnostic reagents
Access to serology, PVM and molecular detection reagents.

Sampling & identification
Need to improve outbreak sampling and virus identification.

Sample shipment
Financial and logistical barriers to reference laboratories.

REG priority actions and proposed timeline

Discussed action plan from the REG

WORKSTREAM	PRIORITY ACTION	LEAD / SUPPORT	TIMELINE
SAT1 diagnostic training	Virtual training for national FMD laboratories; follow with in-person SAT1 detection training and practical capacity development.	FAO / WRLFMD; Regional via Pak Chong	Q1–Q2 2027
Diagnostic reagents	Prepare and distribute SAT1 primers, probes and positive controls; circulate recommended diagnostic kits and contacts.	Pak Chong; FAO / WOAH	Ongoing; controls Q2 2027
Sample shipment & investigation	Facilitate Member-to-Pak Chong-to-Pirbright shipment pathway; train on outbreak investigation and sample collection, including swabs.	Pak Chong / FAO; regional and national labs	Ongoing; training Q1 2027
PVM	Conduct a PVM webinar, followed by virtual training to support interpretation and field evaluation of vaccine performance.	FAO / WRLFMD; WOAH	Dec 2026; Q3 2027
Pool 1 molecular diagnostics	Develop a workplan for lineage-specific RT-PCR for Pool 1, including required primers and probes.	WRLFMD / ACDP / ASEAN / Members	Q1 2027
Reference materials & guidance	Link control/reference sera from Pirbright with PT shipments; review existing FMD sample collection and transport manual.	WRLFMD; WOAH / FAO	Ongoing; 2027–2028
Regional coordination	Continue SEACFMD LabNet collaboration and use the network to share protocols, resources and technical updates.	WOAH / experts / LabNet	LabNet meeting completed

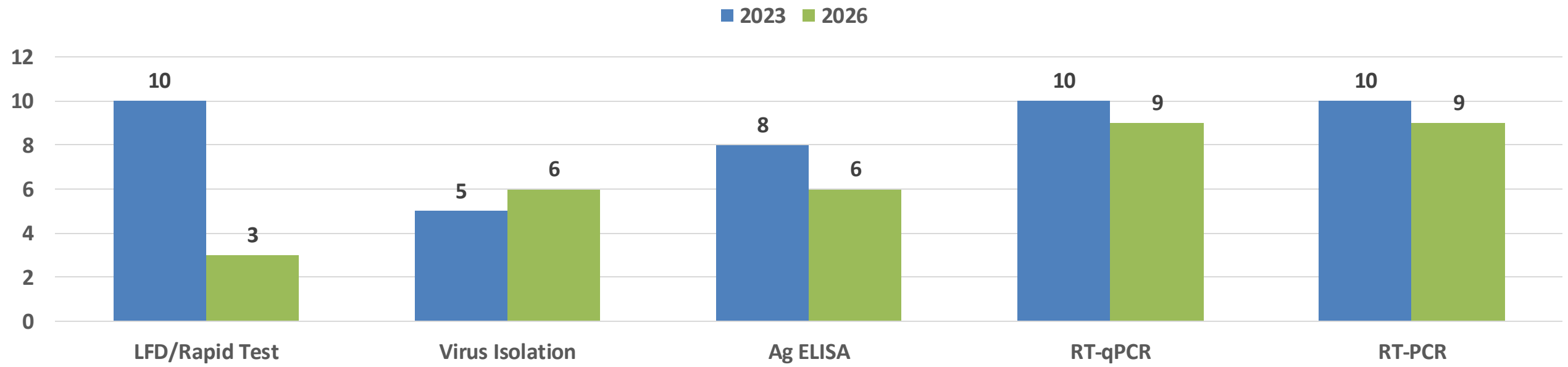
Report on Laboratory Capacity in SEACFMD Member Countries

Waroonsiri Charoenlarp
Bolortuya .P
WOAH SRR SEA

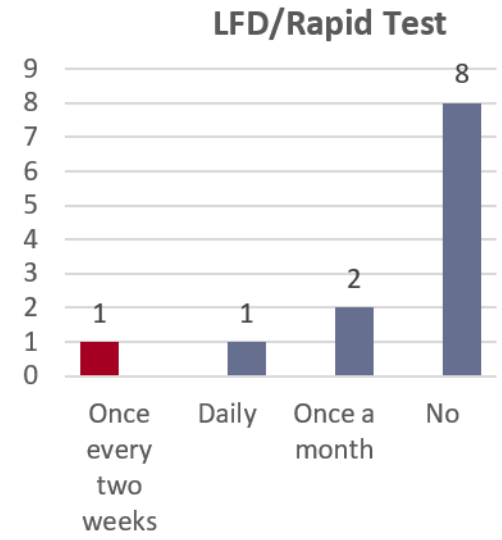
Key Topics

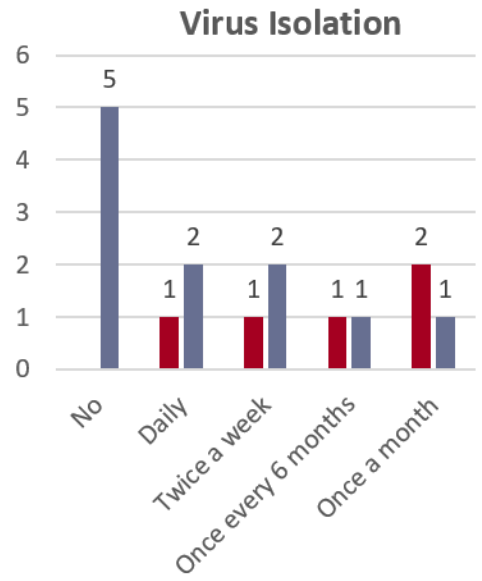
- **Diagnostic Capabilities:**
  - Availability and frequency of core tests (PCR, ELISA, Virus Isolation, Rapid tests).
- **Specialised Testing:**
  - Capacity for Post-Vaccination Monitoring (PVM), NSP testing, and vaccine matching.
- **Quality Management:**
  - Status of SOPs, internal/external quality controls (IQC/EQA), and international proficiency testing (PT).
- **Biosafety & Biosecurity:**
  - Facility biocontainment levels (BSL) and documented safety protocols.
- **Human Resources:**
  - Staff allocation, biosafety training, turnover risks, and overall outbreak readiness.
- **Resource Gaps:**
  - Shortages in equipment, reagents, and reliance on WOAH Reference Laboratory support.
- **Regional Collaboration:**
  - Future capacity-building needs and the ability to offer technical support to other SEACFMD members.

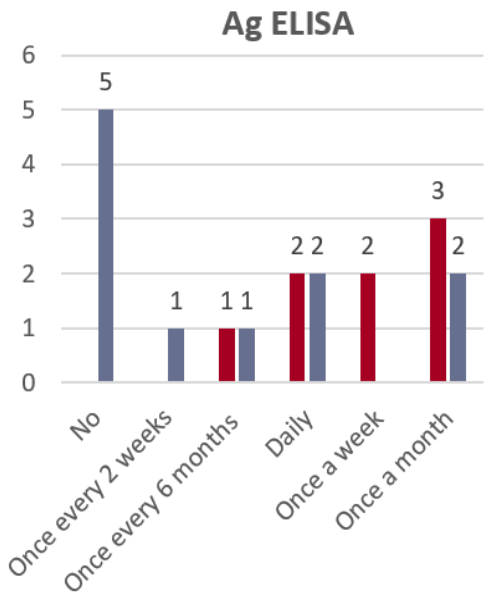
Diagnostic Tests

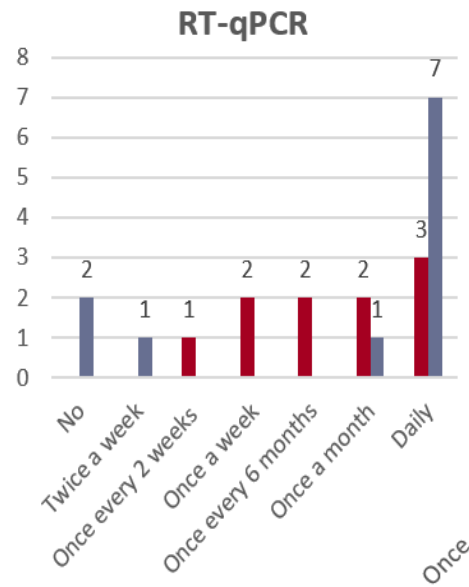


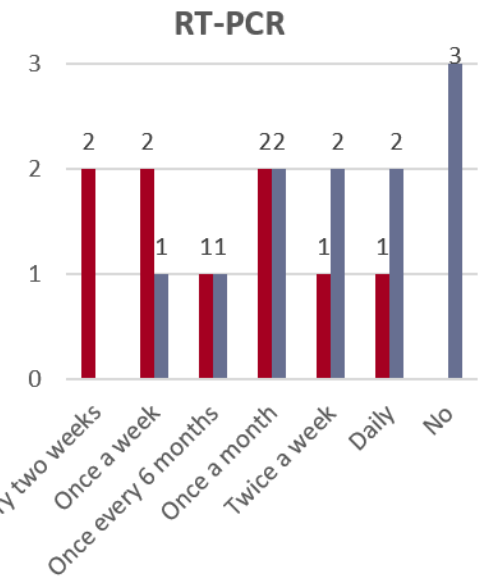
Frequency



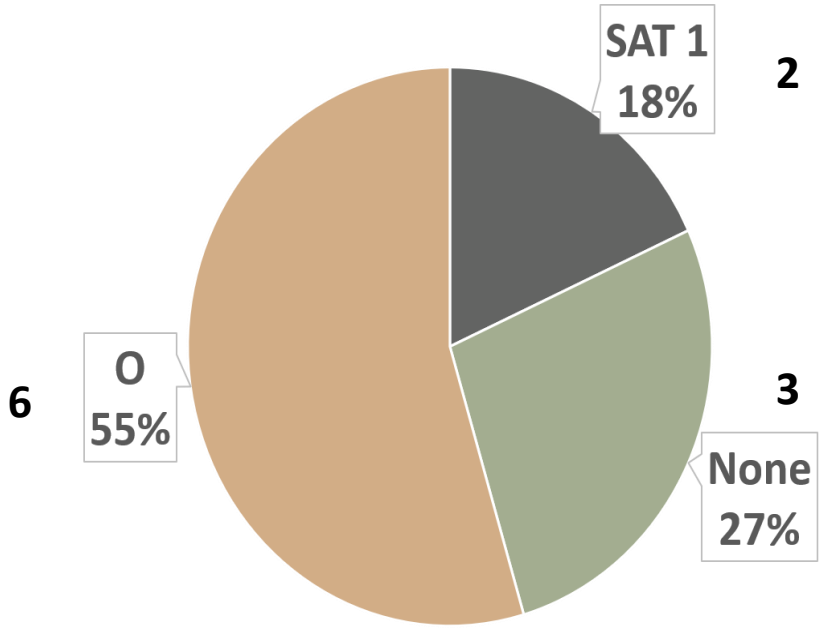




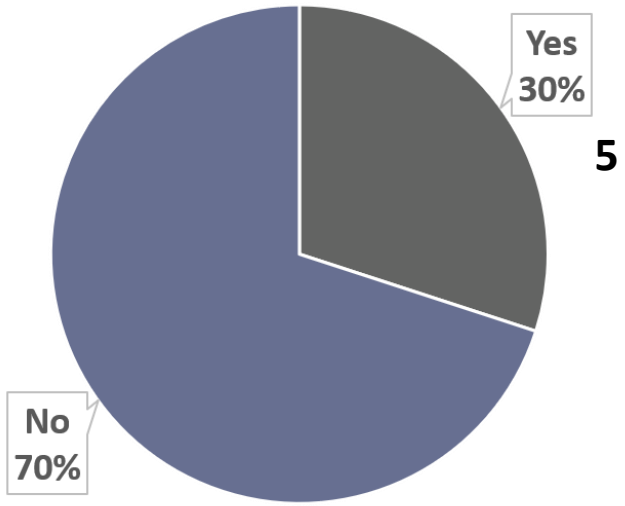




Which FMDV serotypes can your laboratory identify?



Does your laboratory conduct post-vaccination monitoring (PVM)?

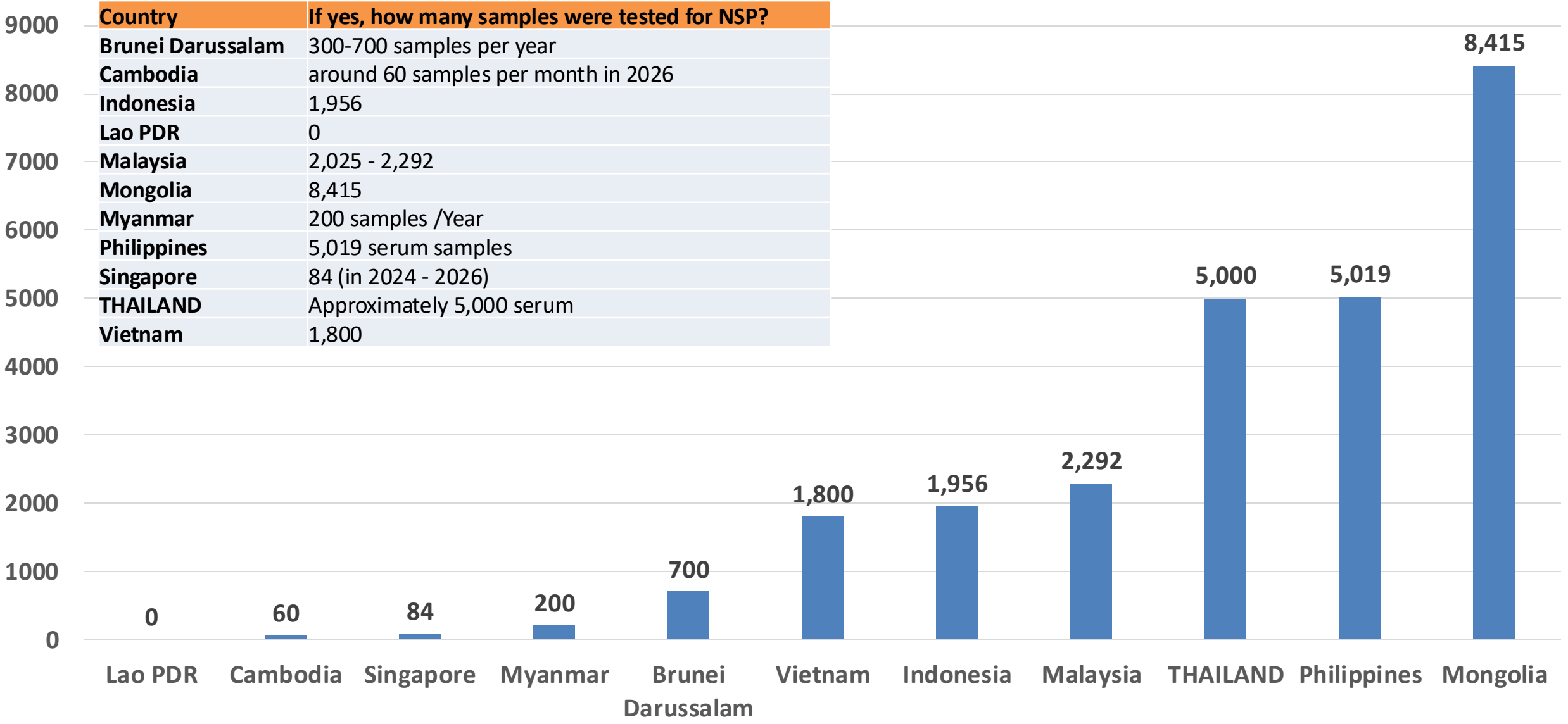


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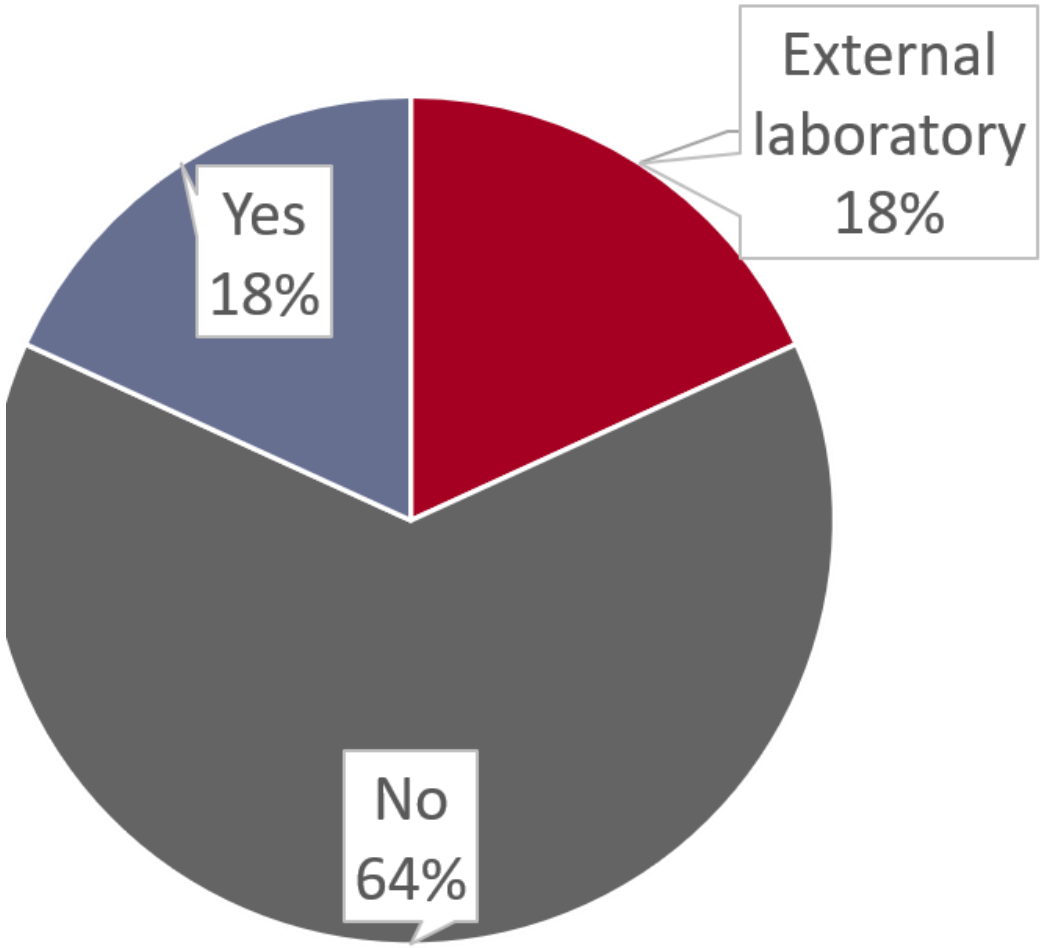
Country	If yes, how many samples were tested for PVM in 2025?
Myanmar	2,135
Mongolia	3,024
Indonesia	3,845
THAILAND	5,000
Malaysia	6,706

All 11 laboratories conduct NSP testing

Country	If yes, how many samples were tested for NSP?
Brunei Darussalam	300-700 samples per year
Cambodia	around 60 samples per month in 2026
Indonesia	1,956
Lao PDR	0
Malaysia	2,025 - 2,292
Mongolia	8,415
Myanmar	200 samples /Year
Philippines	5,019 serum samples
Singapore	84 (in 2024 - 2026)
THAILAND	Approximately 5,000 serum
Vietnam	1,800



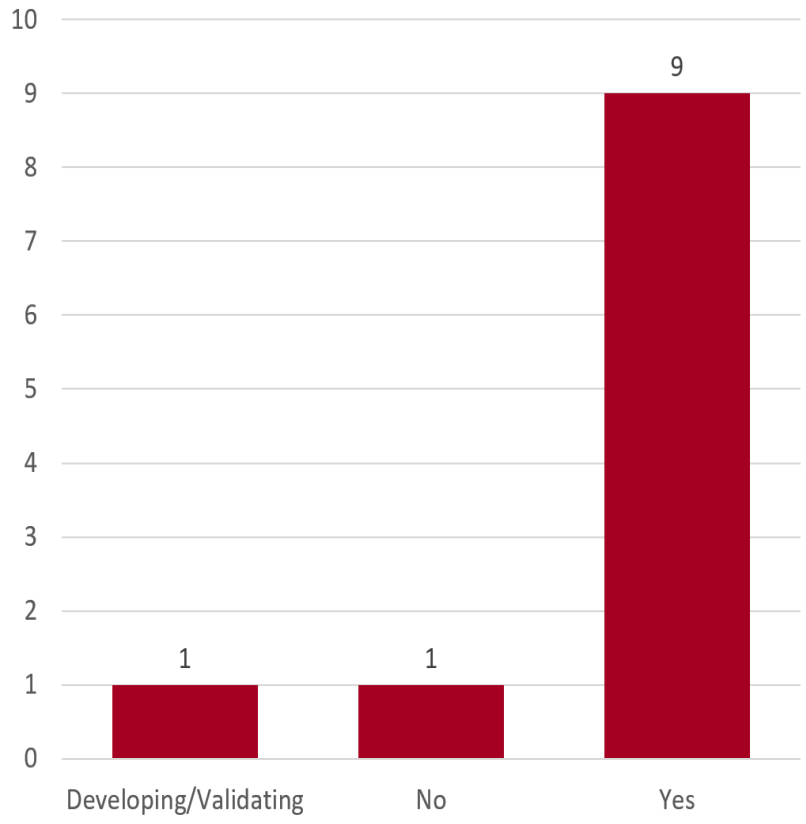
Does your laboratory conduct FMD vaccine matching?



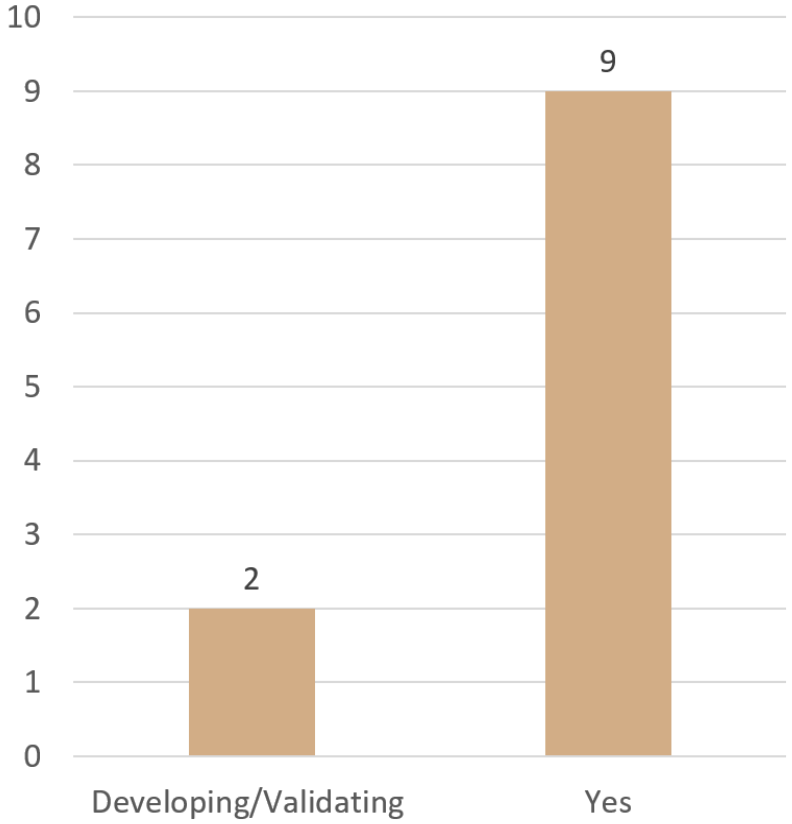
Country	If vaccine matching is conducted externally, please provide the details of the laboratory: Please write laboratory name and country.
Indonesia	Pirbright Institute, UK (WRLFMD)
Mongolia	APQA (Animal and Plant Quarantine Agency), Republic of Korea
Vietnam	The Pirbright Institute - UK

SOPs

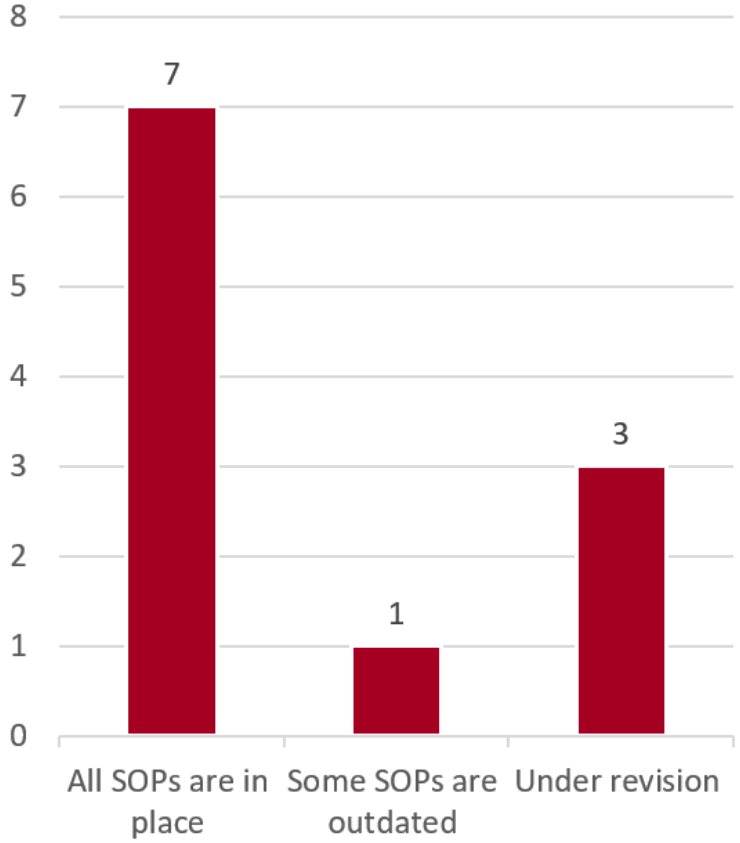
Sample collection



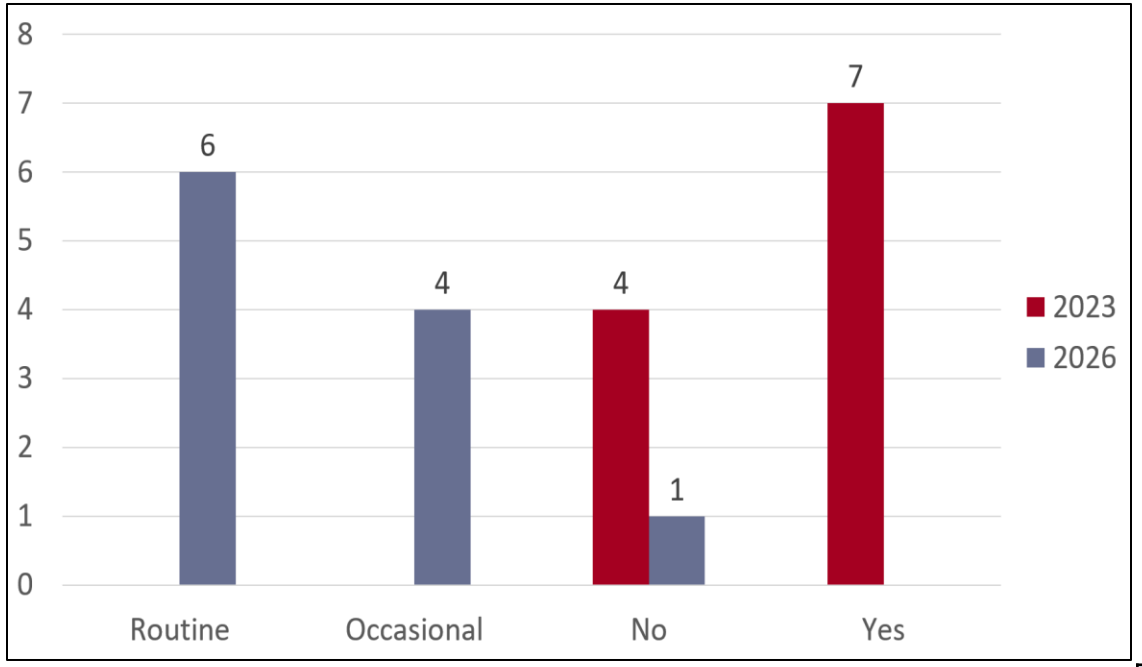
Packaging & Transport

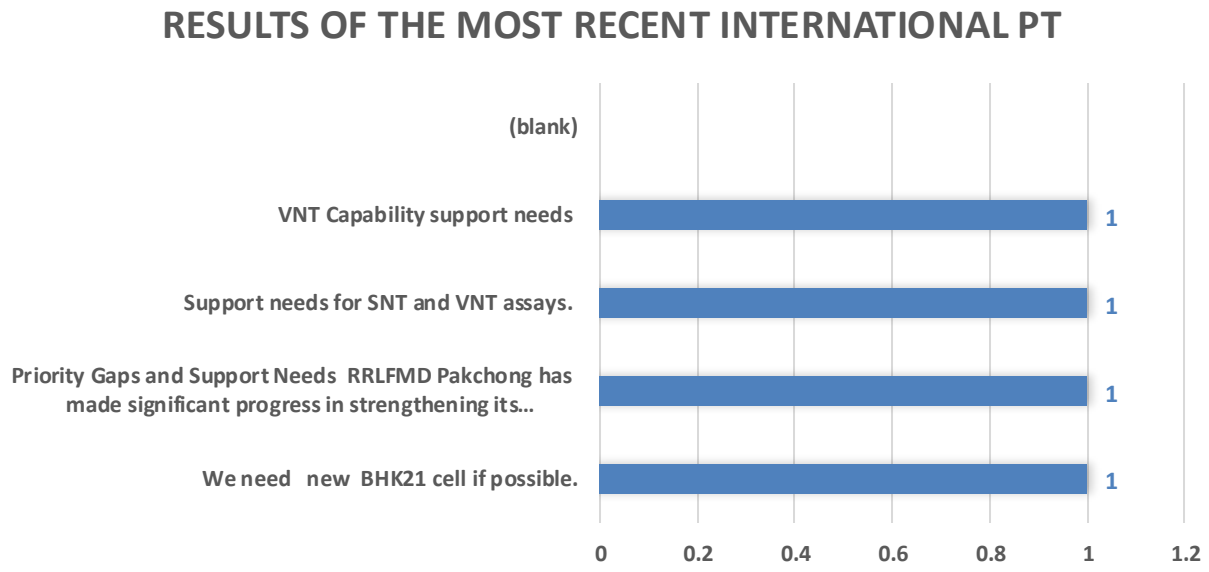


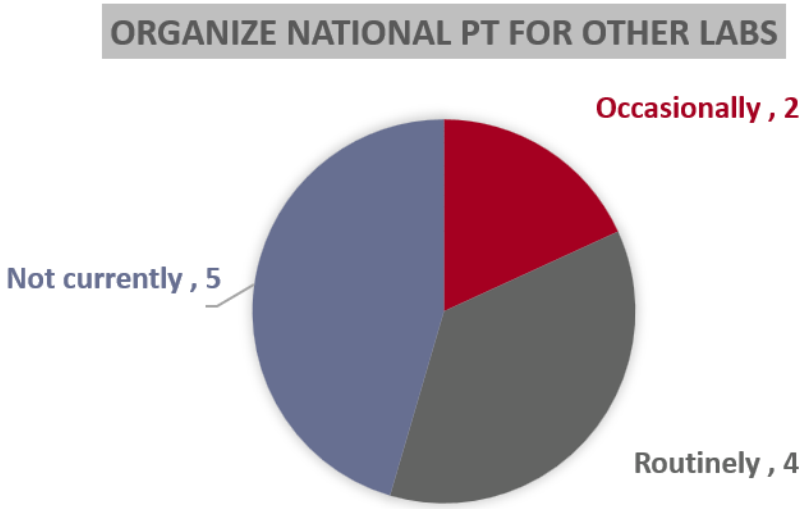
Diagnosis



PT Participation

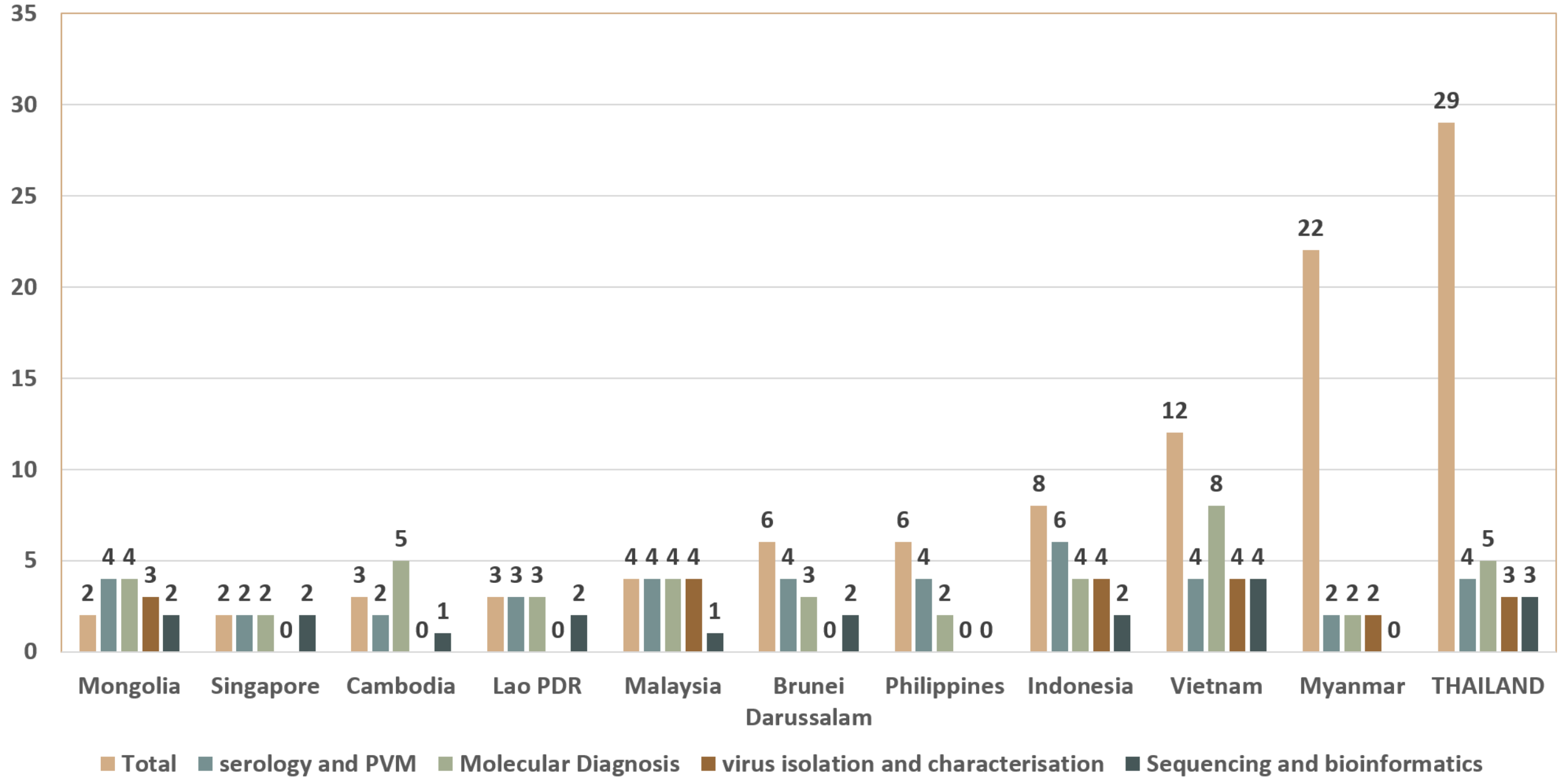




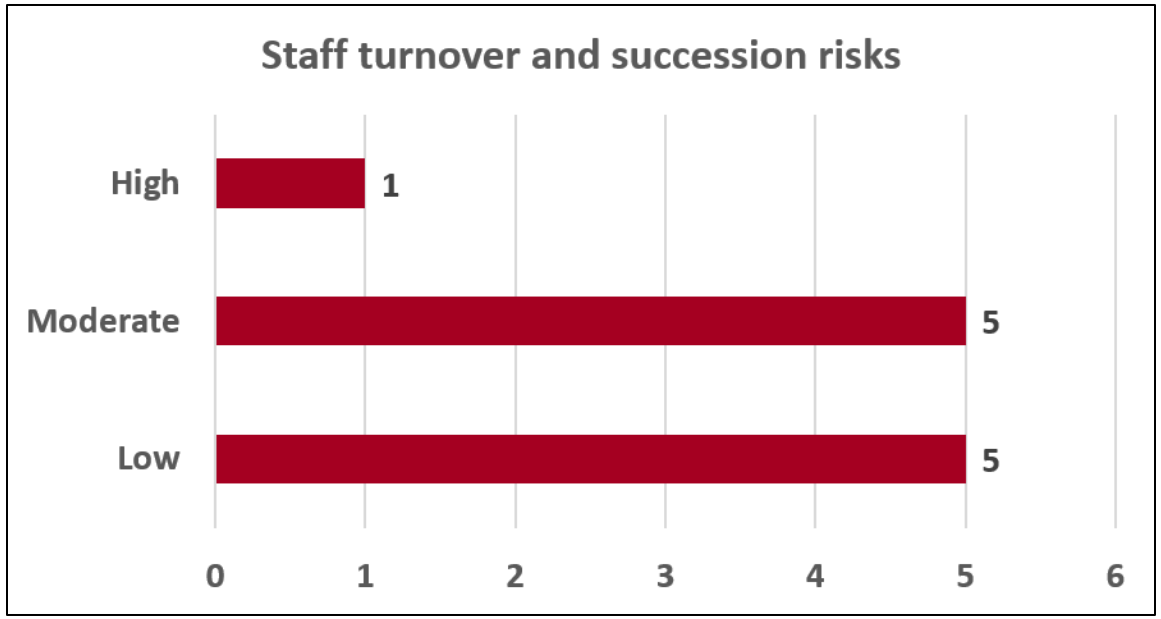


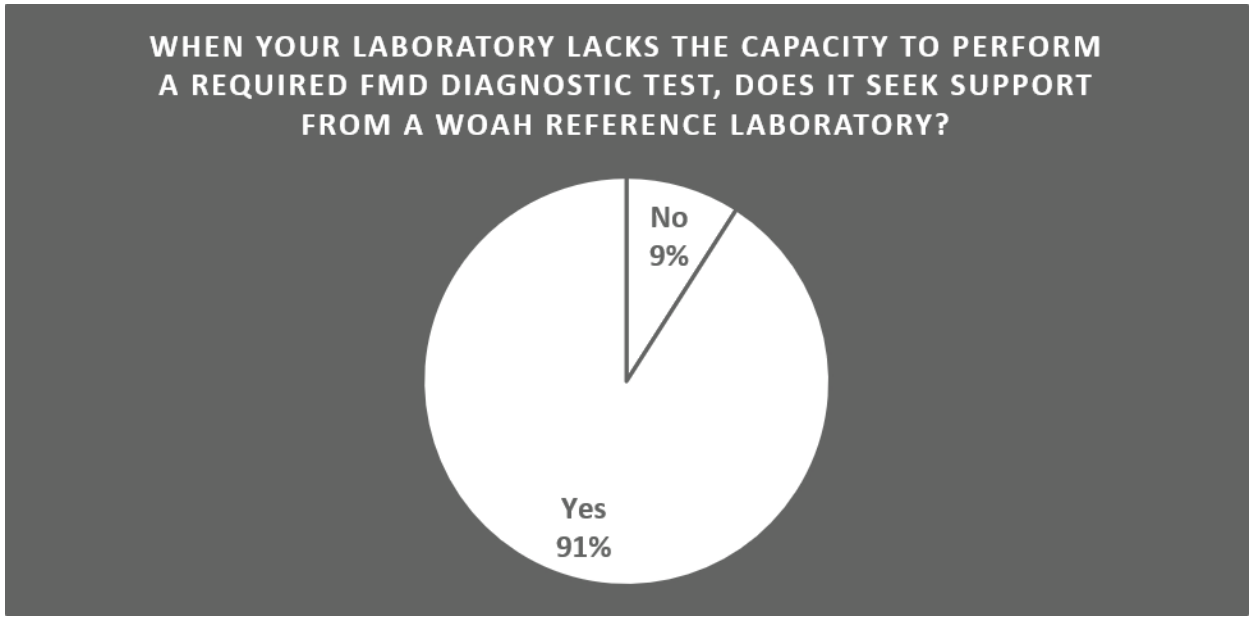
Country	International FMD PT provider	Frequency
Cambodia	Commonwealth Scientific and Industrial Research Organisation, Australia (CSIRO)	every year
Indonesia	Pirbright Institute (WRLFMD) (2023; 2024; 2025) ACDP (2026)	
Lao PDR	RRL	
Malaysia	Regional Reference Laboratory for FMD in South East Asia (RRLSEA),	once in two years
Mongolia	ARRIAH Russia, Pirbright England	
Philippines	FAO World Reference Laboratory for FMD- The Pirbright Institute-	occasional if there is funding only
Singapore	1. Pirbright (annually), 2. Pak Chong	annually annually, if available
THAILAND	WRL:UK	
Vietnam	1.Regional Reference Laboratory for FMD in South East Asia (RRLSEA) 2. Australian Centre for Disease Preparedness - CSIRO	6 years ago;

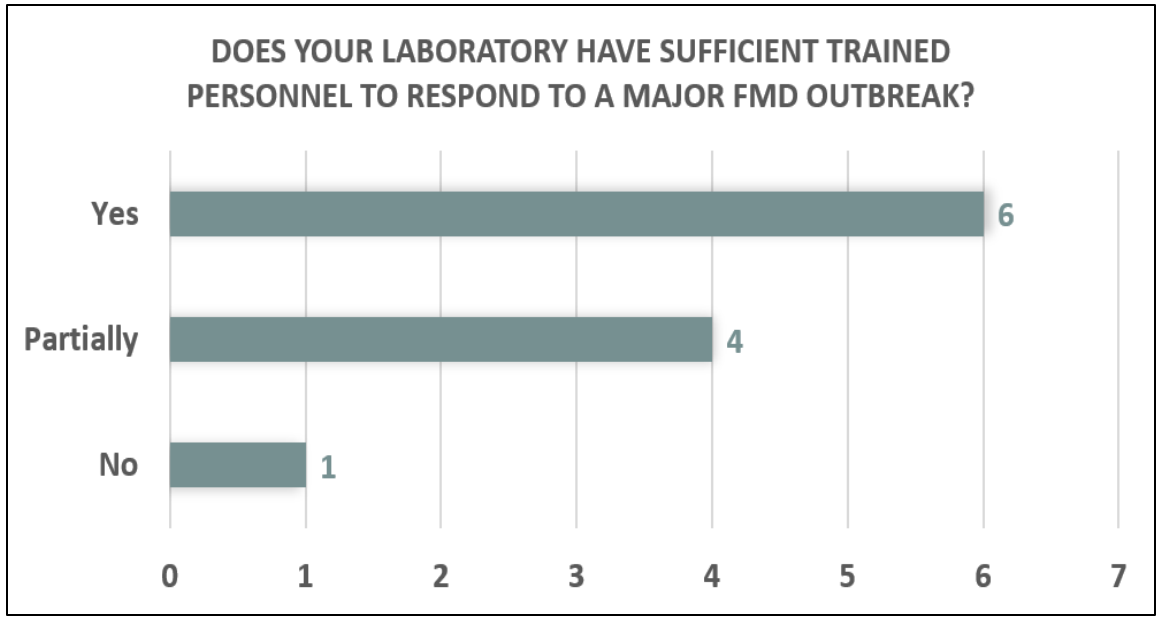
Number of FMD Lab staff

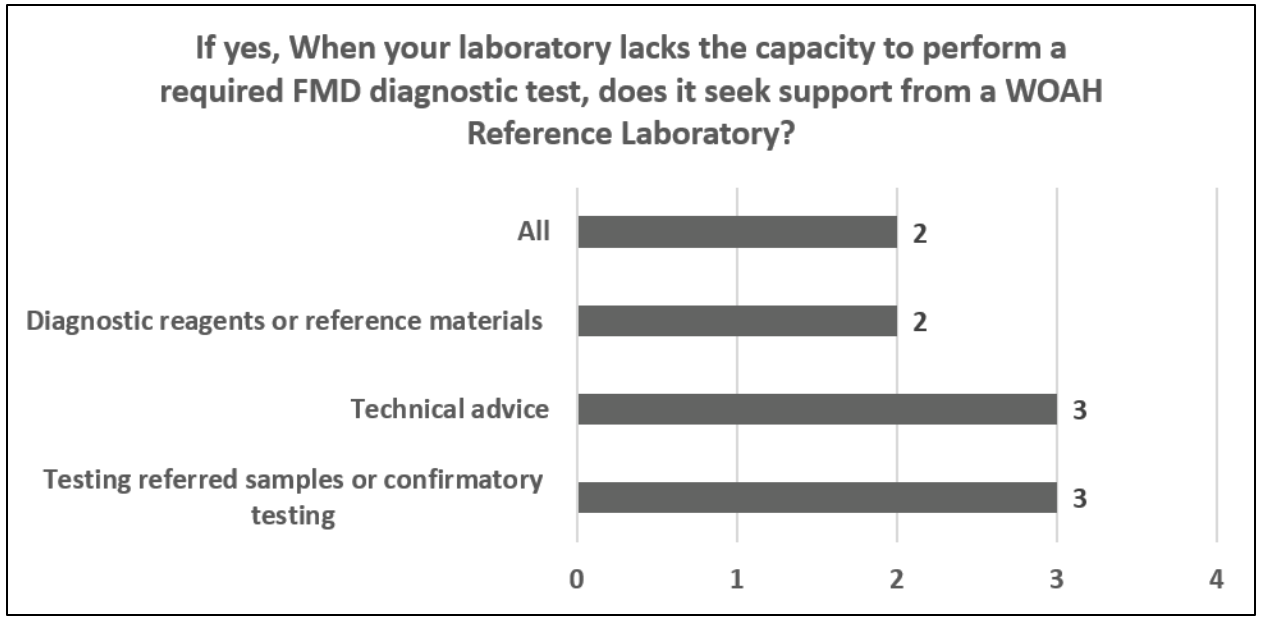


FMD Lab staff

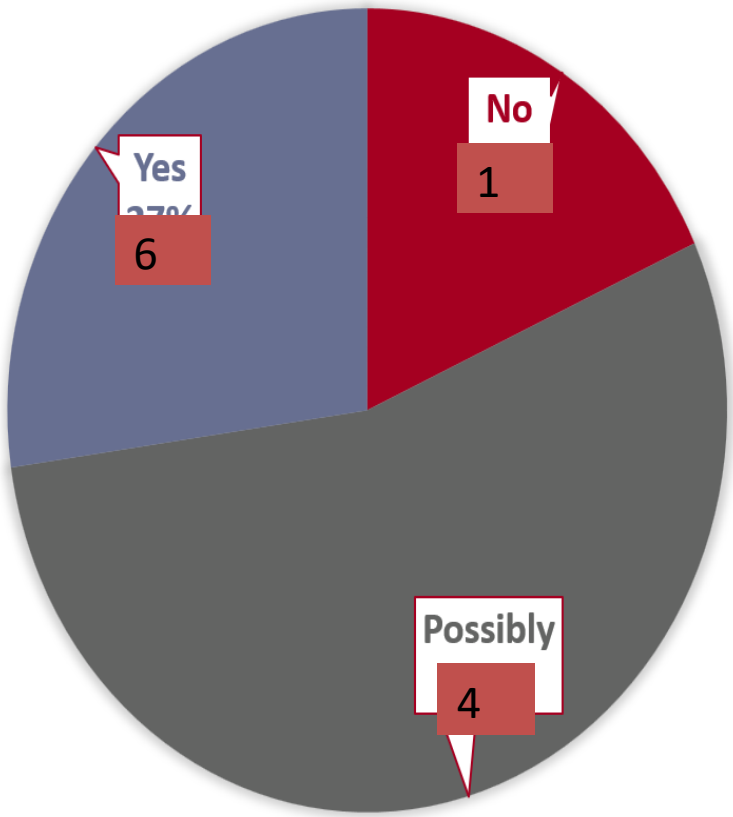








WOULD YOUR LABORATORY PROVIDE TECHNICAL SUPPORT TO OTHER MEMBERS?



Country	What types of technical support can your laboratory provide to other laboratories or SEACFMD Members?
Brunei Darussalam	Training;
Cambodia	Other;
Indonesia	Reference materials/reagents ;
Lao PDR	Other;
Malaysia	Training;Support expertise/consultation ;
Mongolia	Sample Serotyping/characterisation ;
Myanmar	Training;
Singapore	Other; Support expertise/consultation ;
THAILAND	Training;Support expertise/consultation ;PT;Sample Serotyping/characterisation ;Sequencing/bioinformatics ;Reference materials/reagents ;
Vietnam	Sequencing/bioinformatics ;Support expertise/consultation ;Training;

Thank you

