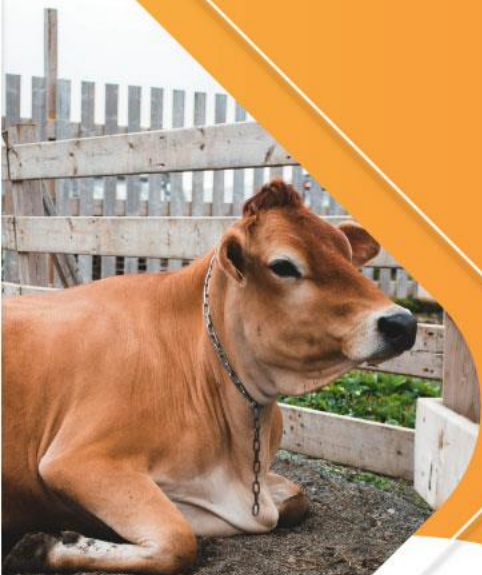


Séminaire régional de formation pour les points focaux nationaux OMSA pour les laboratoires vétérinaires (cycle III)

29 - 31 juillet 2025, Dakar, Sénégal

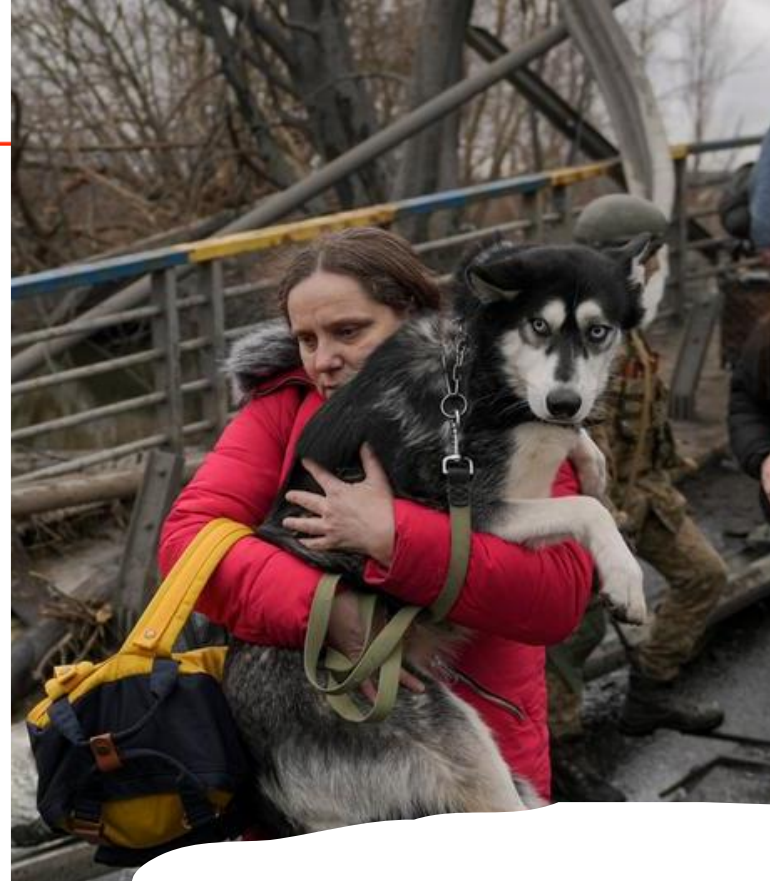




Evolving Threat Landscape for Laboratories WOAH's Work on Emergency Management and Biological Threat Reduction

Patrick Bastiaensen
Chargé Régional de Programme
OMSA, Nairobi, Kenya





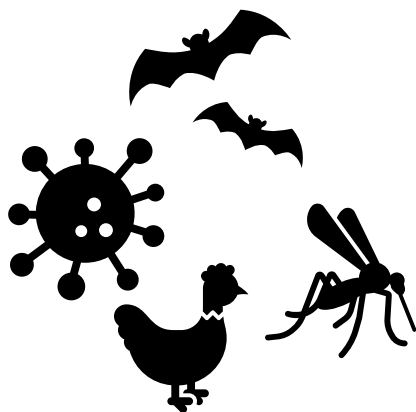
An ever-changing hazard landscape for Veterinary Services



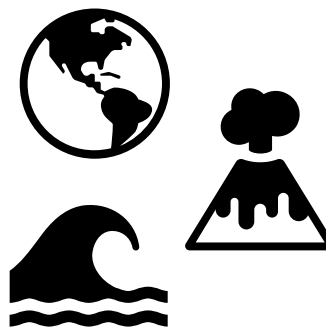
Cofinancé par
l'Union européenne



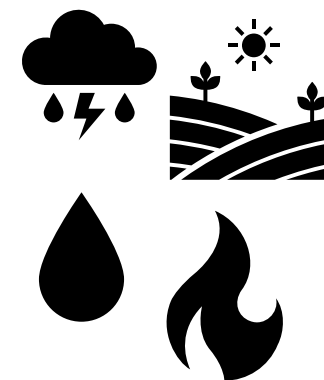
Counter Proliferation
& Arms Control Centre



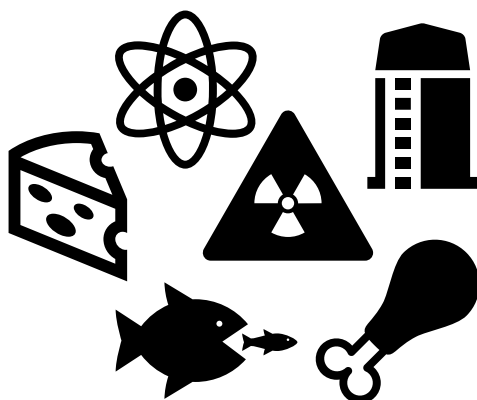
Infectious diseases, including
emerging zoonoses and
vector-borne pathogens



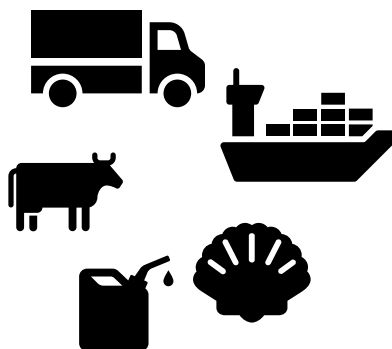
Geological events:
earthquakes, volcanoes and
tsunami



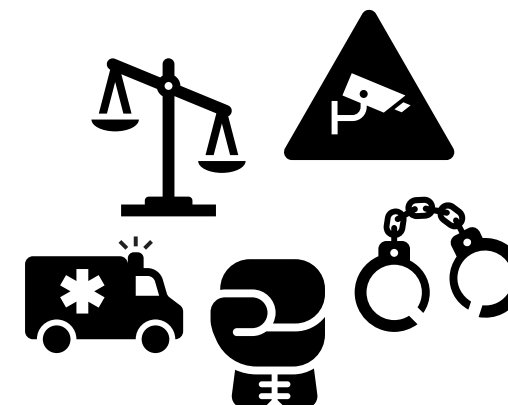
Adverse weather and climatic
events: storms, floods, fire
and drought



Technological disasters and contamination
of food and feed chains

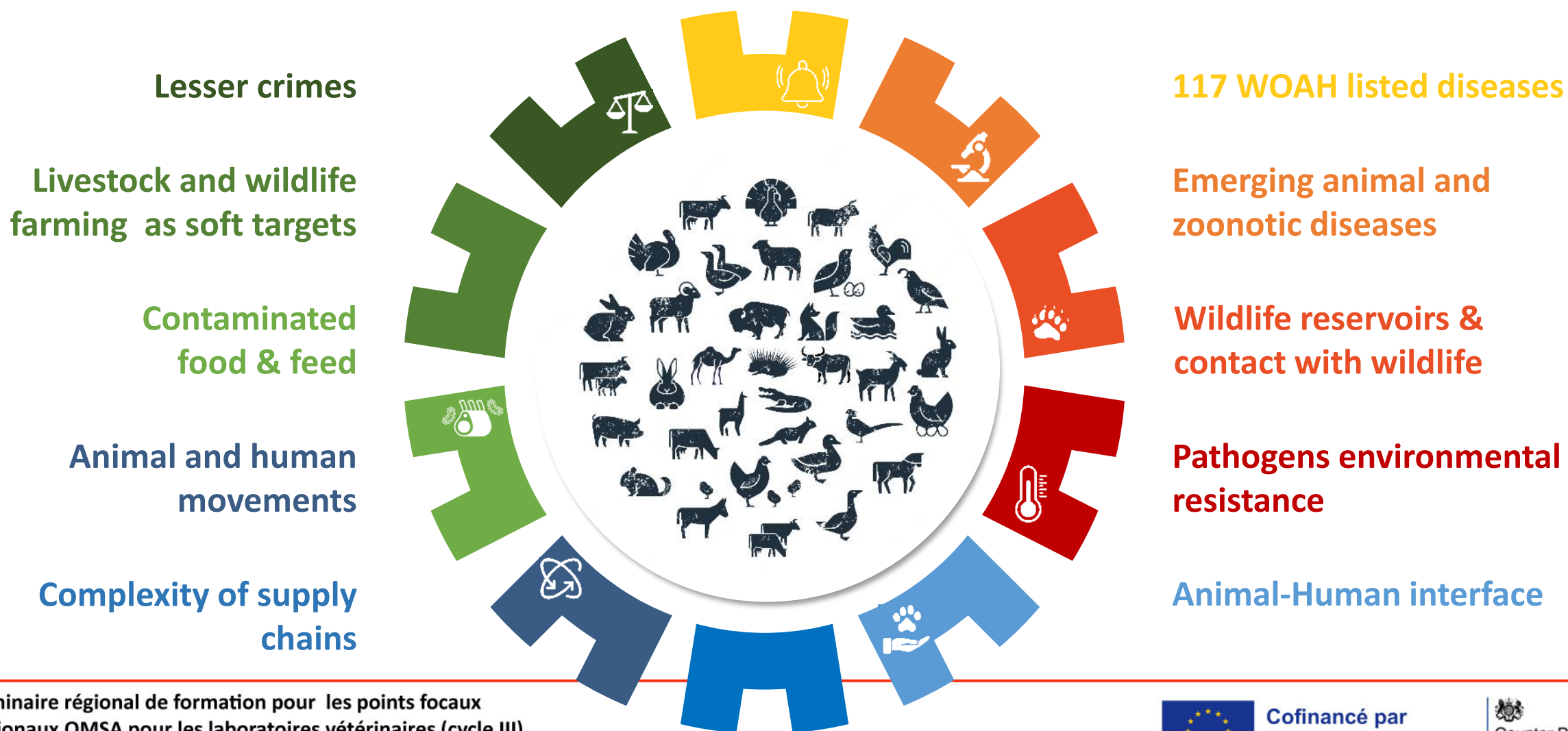


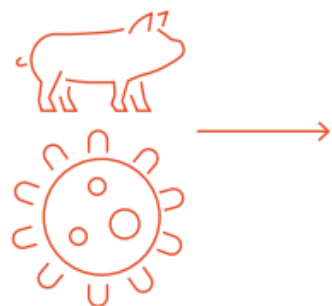
Transport and maritime
accidents, including oil spills



Agro-crime, agro-terrorism,
cybersecurity, conflict, refugees

Vulnerability of the animal sector

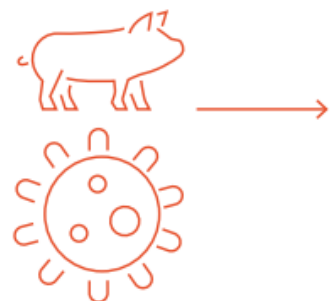




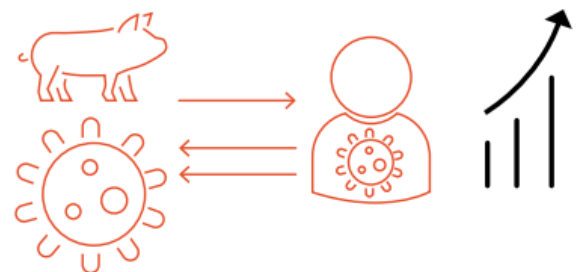
At least
75% of emerging infectious
diseases of humans
(including Ebola, HIV, and
influenza) have an animal
origin



80% of agents with potential
bioterrorist use are zoonotic
pathogens

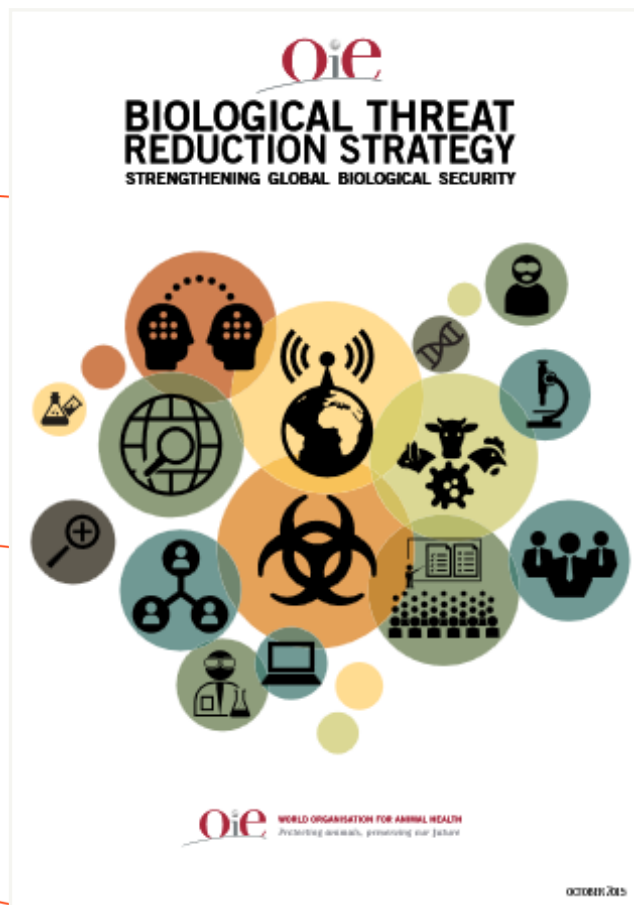


60% of existing human infectious
diseases are zoonotic



There is also increasing evidence to demonstrate
that infectious diseases are also being spread from
humans to animals (reverse zoonosis)

Fight pathogens at the animal source to protect human health

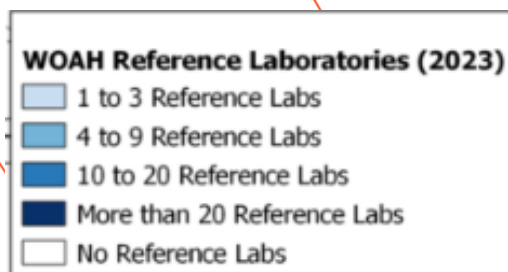
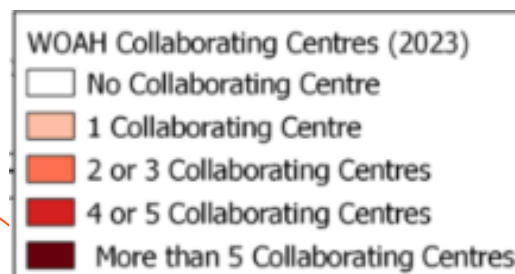
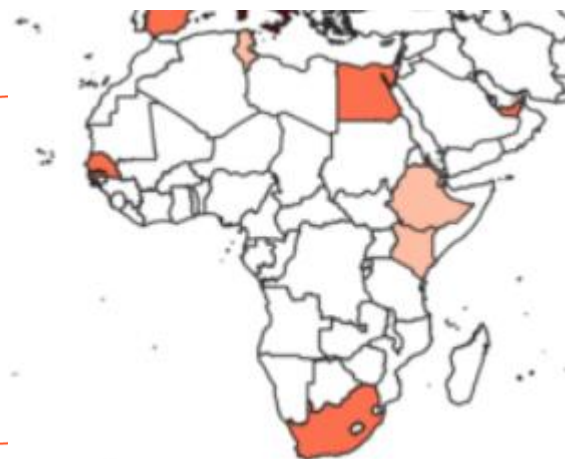


WOAH's strategy for biothreat reduction addresses 5 key areas:

- Maintaining expertise and setting standards, guidelines, and recommendations
- Good Governance, Capacity-building and Implementation of the One Health Concept
- Global Disease Intelligence and Updates on the Latest Methods for Disease Prevention and Control
- International cooperation and Solidarity Between Countries
- Advocacy and Communication

1. Maintaining expertise and setting standards, guidelines, and recommendations

Expertise Network



- CAIRO UNIVERSITY - EGYPT
- CENTRE NATIONAL DE VEILLE ZOOSANITAIRE (CNVZ) - TUNISIA
- INTERNATIONAL CENTRE FOR INSECT PHYSIOLOGY AND ECOLOGY (ICIPE) - KENYA
- AFRICAN UNION (AU-PANVAC) - ETHIOPIA
- CLEVB - EGYPT
- ONDERSTEPSPOORT VETERINARY RESEARCH - SOUTH AFRICA
- ECOLE INTER-ETATS DES SCIENCES ET MÉDECINE VÉTÉRINAIRES (EISMV) - SENEGAL
- FACULTY OF VETERINARY SCIENCES (UP) - SOUTH AFRICA
- ANIMAL HEALTH RESEARCH INSTITUTE, AGRICULTURE RESEARCH CENTRE - EGYPT
- BOTSWANA NATIONAL VETERINARY LABORATORY (BNVL)
- INSTITUT AGRONOMIQUE ET VÉTÉRINAIRE HASSAN II – MOROCCO

1. Maintaining expertise and setting standards, guidelines, and recommendations

Standards



Guidelines



Guidelines for investigation of suspicious biological events

For National Veterinary Services



Biological threat reduction



Guidelines for Simulation Exercises

A consistent set of good practices for preparing, delivering, and learning from animal health and welfare and veterinary public health simulation exercises for Veterinary Services

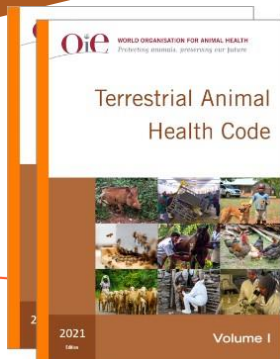


Emergency Management

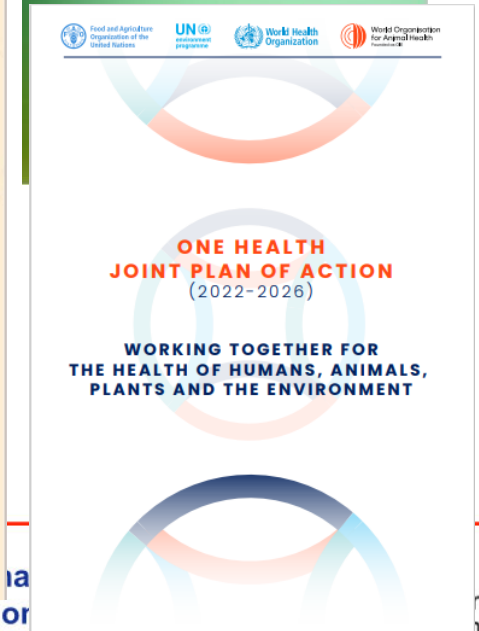
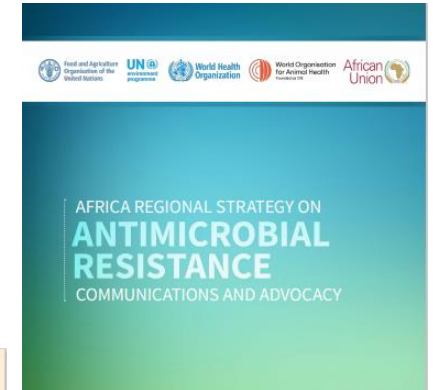
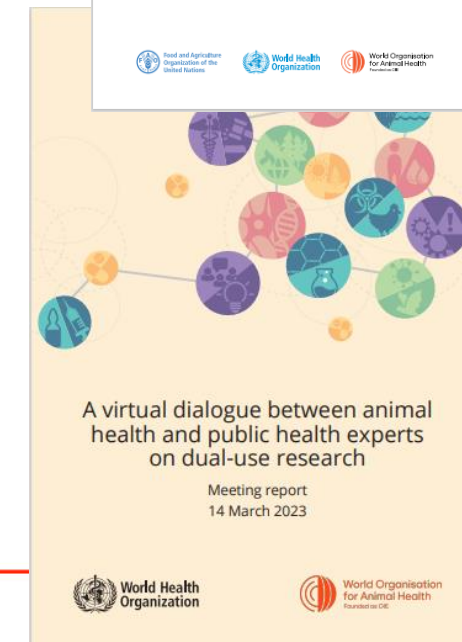
2. Good Governance, Capacity-building and Implementation of the One Health Concept

a. Biosafety and Biosecurity

International Standards

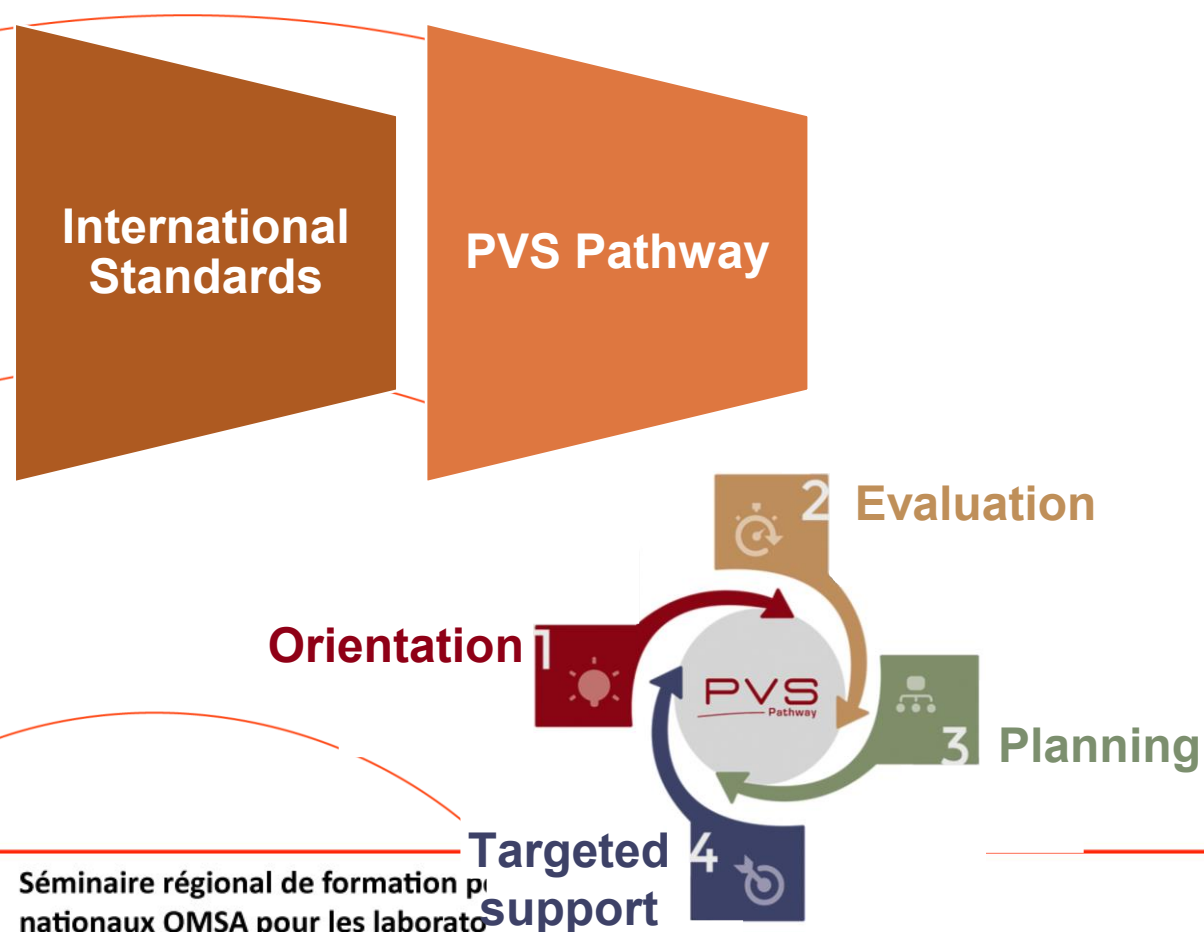


Biosafety and Biosecurity of Veterinary Services



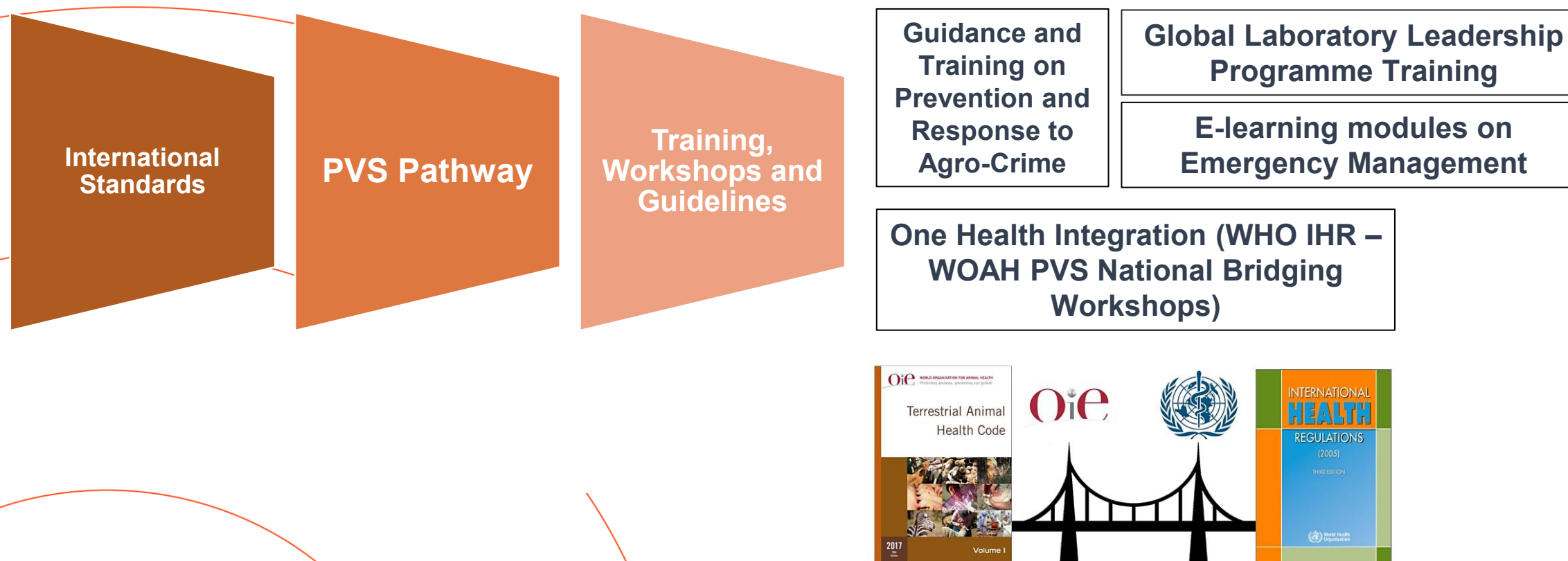
2. Good Governance, Capacity-building and Implementation of the One Health Concept

a. Biosafety and Biosecurity



2. Good Governance, Capacity-building and Implementation of the One Health Concept

a. Biosafety and Biosecurity



2. Good Governance, Capacity-building and Implementation of the One Health Concept

a. Biosafety and Biosecurity



**WOAH Lab
Twinning
Programme**

**Emergency
Management
Programme**



Global distribution of WOAHLab Twinning programmes

Map last updated in February 2023



2. Good Governance, Capacity-building and Implementation of the One Health Concept

a. Biosafety and Biosecurity



2. Good Governance, Capacity-building and Implementation of the One Health Concept

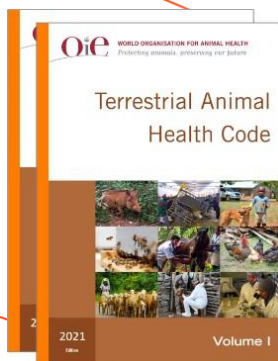
a. Biosafety and Biosecurity



2. Good Governance, Capacity-building and Implementation of the One Health Concept

b. National Governance Structure

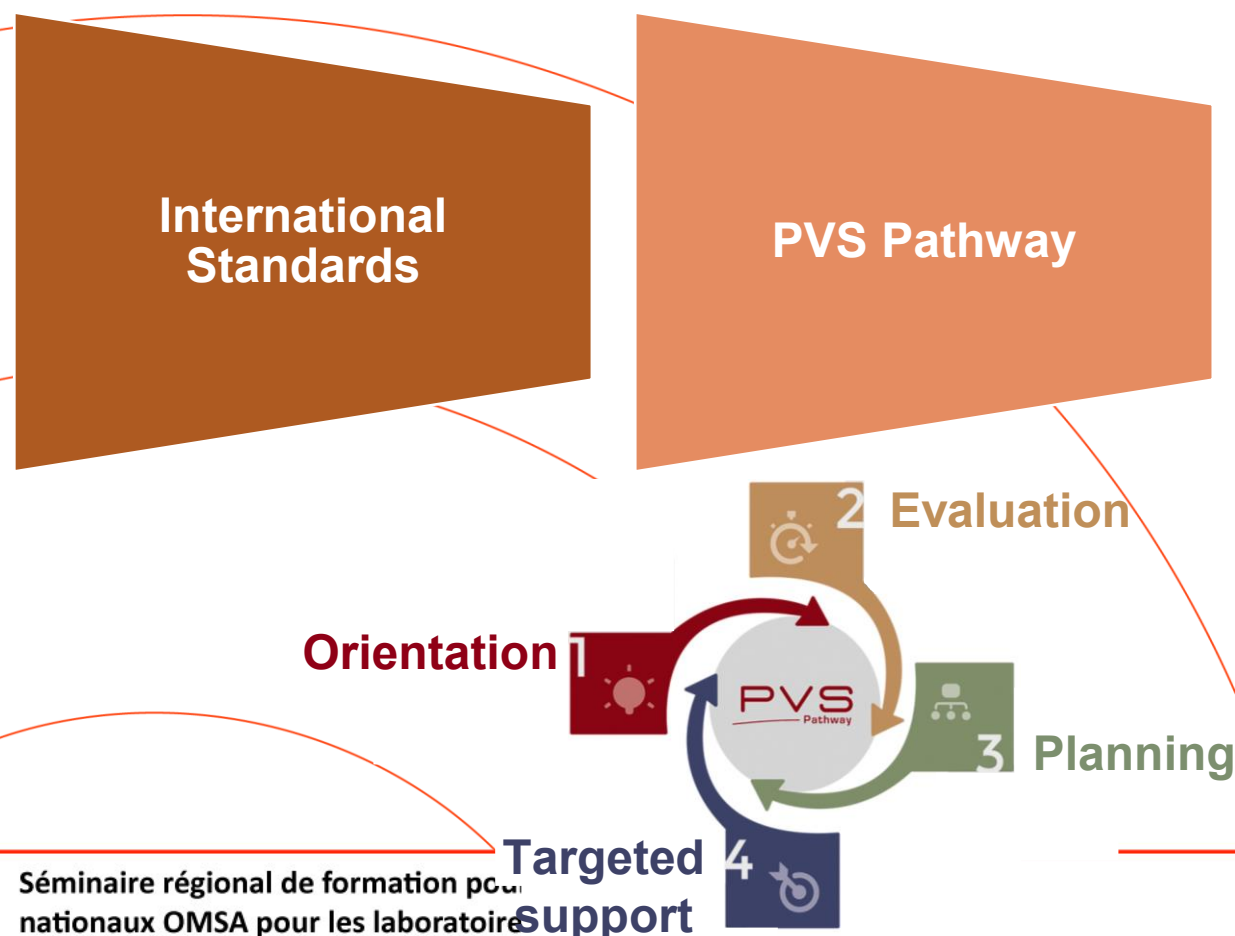
**International
Standards**



**Quality and Good
Governance
of Veterinary
Services**

2. Good Governance, Capacity-building and Implementation of the One Health Concept

b. National Governance Structure



CASE STUDY – ETHIOPIA

INTEGRATION OF THE PVS PATHWAY
INTO A NATIONAL STRATEGIC PLAN
FOSTERED INTERNAL RESOURCING
AND CHANGE

PVS Evaluation in 2011 | PVS Gap Analysis in 2012

Based on the PVS Pathway outcomes, in 2013, Ethiopia developed a Veterinary Services Strategy with 13 major / 5 subsidiary interventions which started in 2014.

Key achievements in response to the PVS findings:

- Real time mobile phone-based Animal Health information system.
- National paper based reporting > partially web-based, now includes abattoir, quarantine station and laboratory data.
- A national Livestock Identification and Traceability System piloted in 2 locations for 2 production systems.
- The Veterinary Services Rationalization Road Map identifying three groups of Veterinary Services: private good, public good and private-public partnership (PPP) with resources targeted accordingly.

2. Good Governance, Capacity-building and Implementation of the One Health Concept

b. National Governance Structure

**International
Standards**

PVS Pathway

**Training, Workshops
and Guidelines**



UGANDA

With support from OIE through a VLSP Identification mission and a follow on VLSP Veterinary Legislation Agreement completed in 2016, was able to draft and finalize a new Veterinary Practice Act for submission to Parliament that regulates both veterinarians and for the first time, veterinary paraprofessionals.

Veterinary Legislation Support Programme (VLSP)

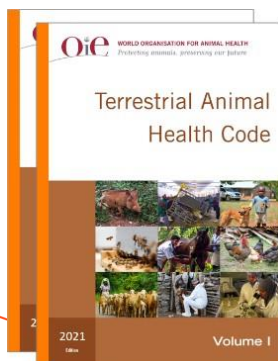
**Advocacy material for
veterinary legislation and
biological threats**

**VLSP identification missions
with a special focus on
biological threat reduction**

**VLSP experts training
on global legal
framework for
biological threat
reduction**

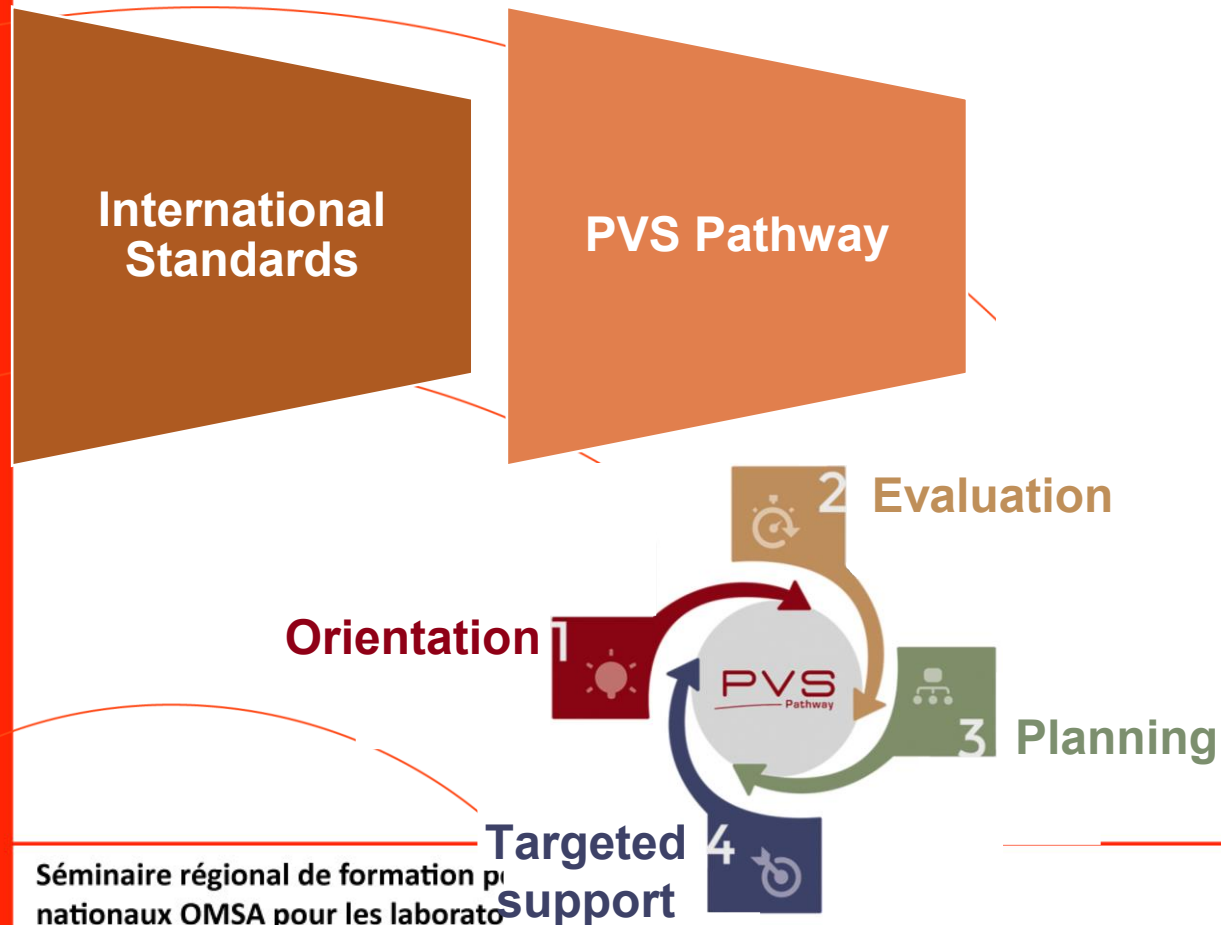
3. Global Disease Intelligence and Updates on the Latest Methods for Disease Prevention and Control

International
Standards

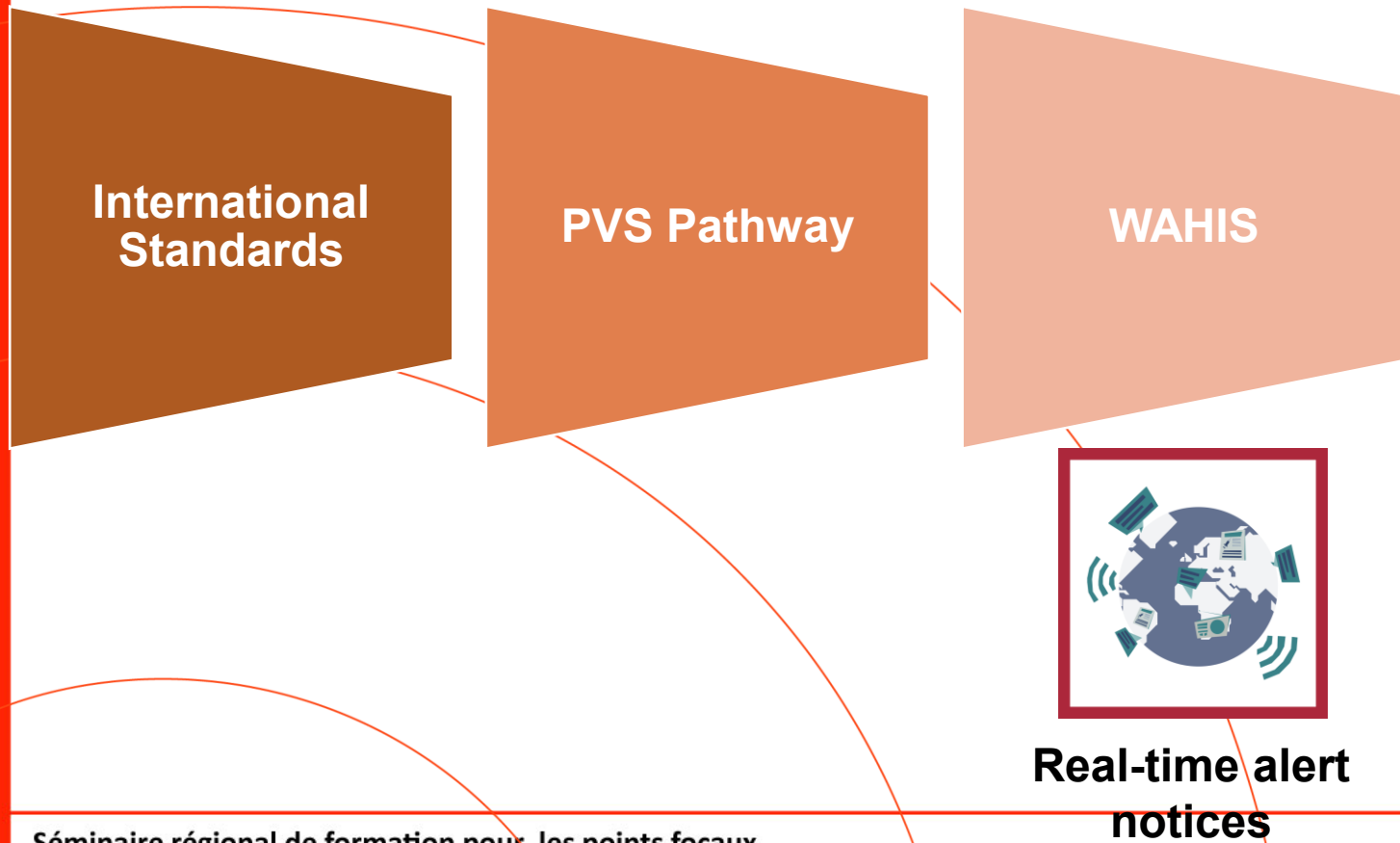


Animal Disease Diagnosis,
Notification, Prevention,
Surveillance and Control

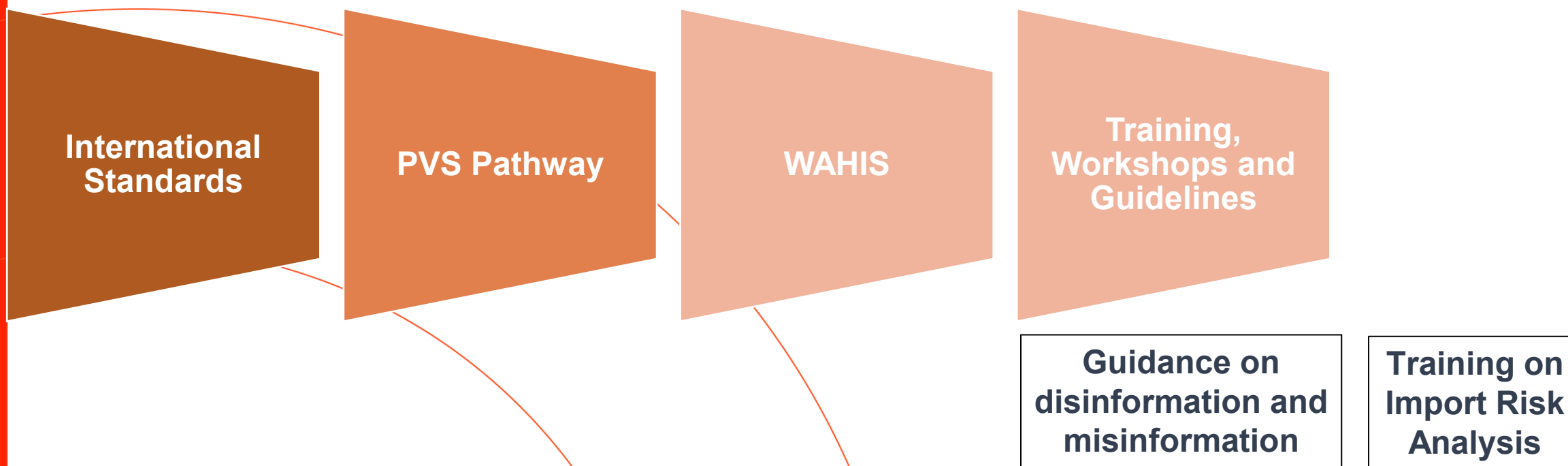
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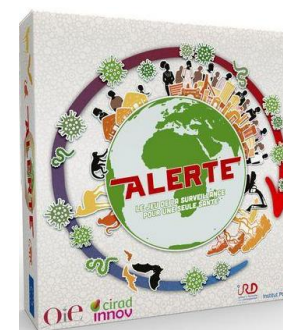
International
Standards

PVS Pathway

WAHIS

Training,
Workshops and
Guidelines

Capacity building and
surveillance for viral
haemorrhagic fevers “EBO-
SURSY & ZOOSURSY
Project”



4. International Cooperation and Solidarity Between Countries



World Health
Organization



Food and Agriculture
Organization of the
United Nations

ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE



INTERPOL



Excellence in Research and Development



AFRICAN UNION
INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES



NATIONAL INSTITUTE FOR
COMMUNICABLE DISEASES

Division of the National Health Laboratory Service



RÉSEAU SEGA
ONE HEALTH



Global Partnership Against
the Spread of Weapons and
Materials of Mass Destruction



Pan African Veterinary Vaccine Center of African Union

AU-PANVAC



Centres for Disease Control and Prevention

Safeguarding Africa's Health

5. Advocacy and Communication



Séminaire régional de formation pour les points focaux
nationaux OMSA pour les laboratoires vétérinaires (cycle III)

29 - 31 juillet 2025, Dakar, Sénégal

Fortifying Institutional Resilience against Biological Threats (FIRABioT)

Objectives

1. Improve WOAHA's ability to anticipate, respond and recover from emergencies and ensure business continuity
2. Strengthen WOAHA Members' abilities and capacities to respond to emergencies, particularly in Africa
3. Demonstrate value of WOAHA as a partner for security organisations

Project Breakdown

1. Establish a WOAHA Incident management system
2. Improve capacity of WOAHA Members to respond to emergencies resulting from deliberate releases (focused on Africa)
3. Scientific and evidence-based guidance and standards for emergency management developed
4. Dissemination of good practices for emergency management (including for deliberate releases)



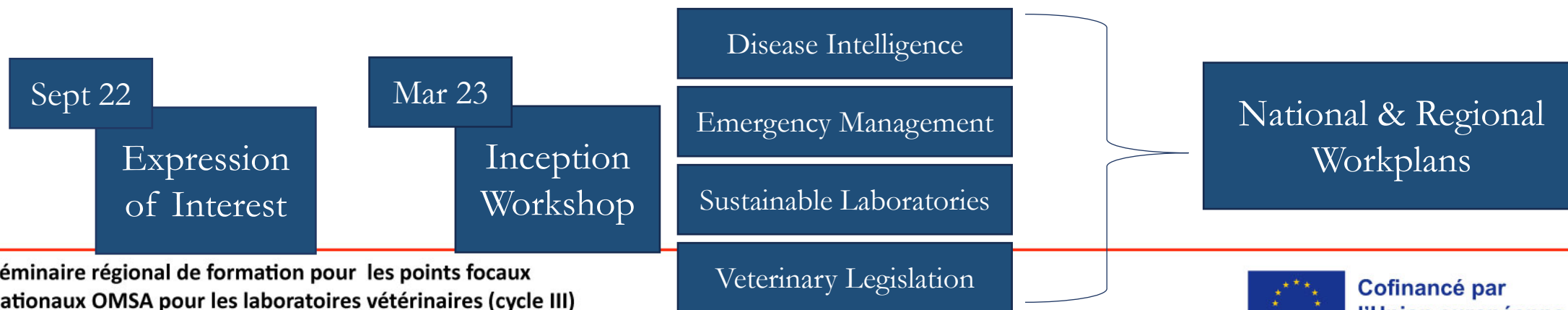
In partnership with
Canada

Why are we doing this in Africa?

- Previous work funded by GAC demonstrated gaps and challenges in emergency management and contingency planning
- Support the Global Partnership's Signature Initiative to Mitigate Biological Threats in Africa

Workstream structure

- Approach is based on lessons identified during previous projects. **Goal:** country driven, collaborative development and implementation





Beneficiary countries

1. Algeria
2. Congo (Republic)
3. Kenya
4. Madagascar
5. Malawi
6. Morocco
7. Namibia
8. Tanzania
9. Zimbabwe



Country activities completed

- **Biosafety & biosecurity training:** training laboratory personnel on the WOA standards on biosafety & biosecurity, and the ISO 35001 (biorisk management) – Tanzania, Madagascar, Malawi, Zimbabwe, Morocco and Congo (Republic)
- **Diagnosis of CBPP:** priority disease that excludes countries from trade in live animals – Kenya
- Diagnosis of high consequence pathogens (CBPP & RVF) – Congo (Republic)



Country activities ongoing

- **Veterinary legislation review (biosafety & biosecurity):** VLSP with a biothreat focus – **Madagascar & Malawi** [Q1 & Q2 2025, CBD]
- **Development of contingency plans for zoonotic diseases:** one plan with annexes for the country's priority zoonotic diseases – **Madagascar, Malawi, & Namibia**
- **Drafting laboratory and field biosafety & biosecurity guidelines, protocols, SOPs:** to support implementation of biorisk mitigation strategies – **Kenya & Malawi** [Q1, Q2, Q3 2025]
- **Laboratory twinning:** on biosafety & biosecurity, diagnosis of HCATs or pathogens on the Australia Group List – **Tanzania, Algeria**





Upcoming country activities

- **Bioinformatics & data management training:** improving ability of veterinary services to generate and analyse molecular and quantitative data, for improved disease detection and management – **Namibia & Zimbabwe [Q2, Q3 2025]**
- **National Bridging Workshop:** linking IHR and PVS/VLSP assessment reports – **Malawi [Q2 2025, CBD]**
- **Inventory of dangerous pathogens:** database of laboratories holding pathogens of concern for proper tracing and implementation of relevant biorisk mitigation measures – **Congo**





Upcoming country activities

- **Drafting / Updating laboratory biosafety & biosecurity regulations, guidelines, protocols, SOPs:** to support implementation of biorisk mitigation strategies, and foster a biosafety culture – **Madagascar [Q3, Q4 2025]**
- **Developing risk communication strategy:** to guide internal and external communication of veterinary services in the event of an emergency (naturally occurring or deliberate event) – **Tanzania [Q3, Q4 2025]**
- **Training on surveillance, early warning and control of biological threats:** based on WOA's surveillance standards and guidance – **Morocco [Q3 2026]**
- **Disease simulation exercises:** to assess effectiveness of developed contingency plans – **Zimbabwe, Morocco, Madagascar & Tanzania [Q3 2025]**



Regional Activities completed

- **Biological Waste Management Training:** proper handling of biological waste in veterinary laboratories to reduce risk of unintentional release or exposure to dangerous pathogens – **NICD (Africa CDC)**
- **Bioinformatics and Data Management Training:** improve countries' diagnostic and surveillance capabilities by improving management of molecular and quantitative data – **ILRI, IZS Teramo, Institut Pasteur de Tunis**
- **Risk and Crisis Communication for animal health emergencies:** addressing misinformation and disinformation, increasing visibility of VS, and improved stakeholder engagement during emergencies – **UNICRI, John Hopkins Center for Health Security, USIU-Africa, APAA**
- **WOAH Supported Delegation to the IFBA Global Voices Conference 2025:** supported 10 competitively selected participants from previous FIRABioT activities.



Upcoming Regional Activities

- **Training on planning and conducting disease simulation exercises:** simulations key for testing contingency plans and clarifying stakeholder roles in emergency response. (English & French) **[Q2 2025]**
- Regional Agrocime & Agroterrorism Workshop (English & French) – **INTERPOL [Q1, Q3 2025]**
- Regional Disease Simulation Exercise (English & French) **[Q1 2026]**
- **Training on investigation of suspicious biological events training for vets:** training on investigation of suspicious biological events – **(Kenya, Tanzania & Zimbabwe) (Algeria, Madagascar & Morocco) [Q1 2026]**

Global Conference on Biological Threat Reduction

Location: CICG Conference Center, Geneva, Switzerland, (hosted by WOAHA)

Date: 28 - 30 October 2025

Objectives

- Reflect on Historical Experiences and Current Challenges and anticipate future threats:
- Strengthen International Efforts in Biological Threat Reduction:
- Foster multi-sectoral partnerships in global health security:
- Identify innovative strategies:

Funded by; Global Affairs Canada, US DTRA, EU Commission, Swiss Federal Department of Foreign Affairs

<https://www.woah.org/en/event/global-conference-on-biological-threat-reduction/>



Summary

- As the global animal health authority, WOAH's mandate covers all-hazards relevant to animal health – including biological threats
- Remain agile to respond and deliver activities for Members upon request
- Active engagement with Membership and partners
- Foster collaboration





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