

Implementing One Health projects

Experiences and lessons from the EBO-SURSY project

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World
Organisation
for Animal
Health

Organisation
mondiale
de la santé
animale

Organización
Mundial
de Sanidad
Animal

25th Conference of the Regional
Commission for Africa (Gaborone,
Botswana) 20 – 24 February 2023



CAPACITY BUILDING AND SURVEILLANCE FOR EBOLA VIRUS DISEASE

Improving early warning systems and preventing viral haemorrhagic fevers

ebo
SURSY

PROJECT

1
INCREASE SURVEILLANCE
CAPACITY FOR VIRAL
HAEMORRHAGIC FEVERS

2
RAISE COMMUNITY
AWARENESS OF VIRAL
HAEMORRHAGIC FEVERS

3
STRENGTHEN SURVEILLANCE
PROTOCOLS FOR VIRAL
HAEMORRHAGIC FEVERS

7 YEARS
2017 → 2024

Financed by
THE EUROPEAN UNION



FOOD-2016-379-660

10 COUNTRIES
from West and Central Africa



PROJECT IMPLEMENTERS

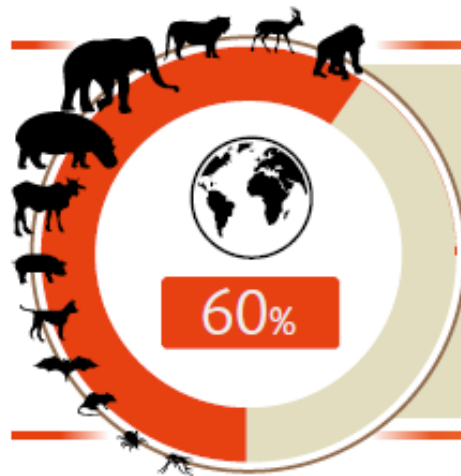


World Organisation
for Animal Health
Founded as OIE

In partnership with



ZOONOSES



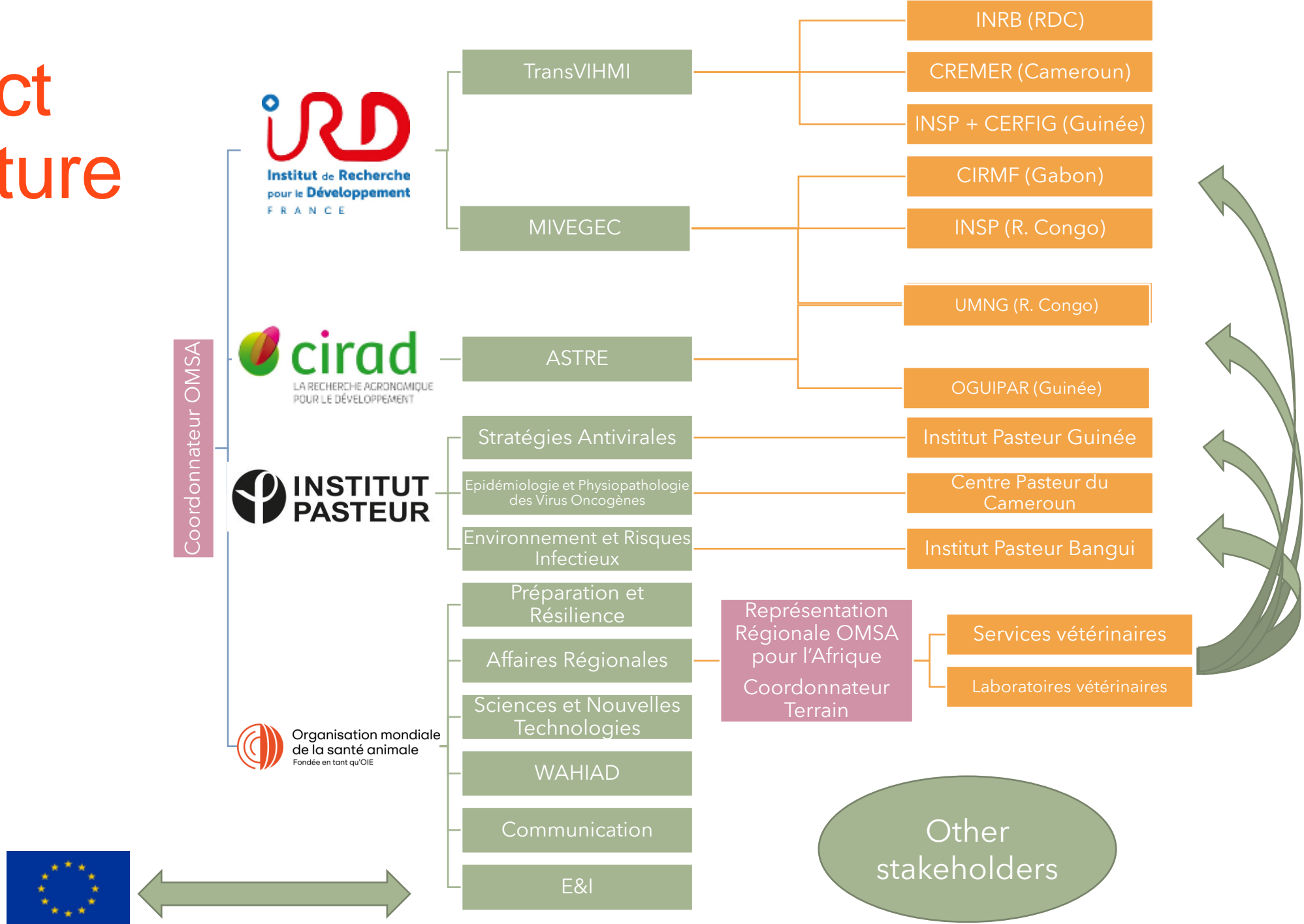
**60% OF INFECTIOUS
DISEASES AFFECTING PEOPLE**
are of animal origin,
meaning they are zoonoses

**6 MAJOR
PATHOGENS
STUDIED**

VIRUSES

- Ebola virus
- Marburg virus
- Rift Valley Fever
- Crimean-Congo Fever
- Lassa Fever
- Coronavirus

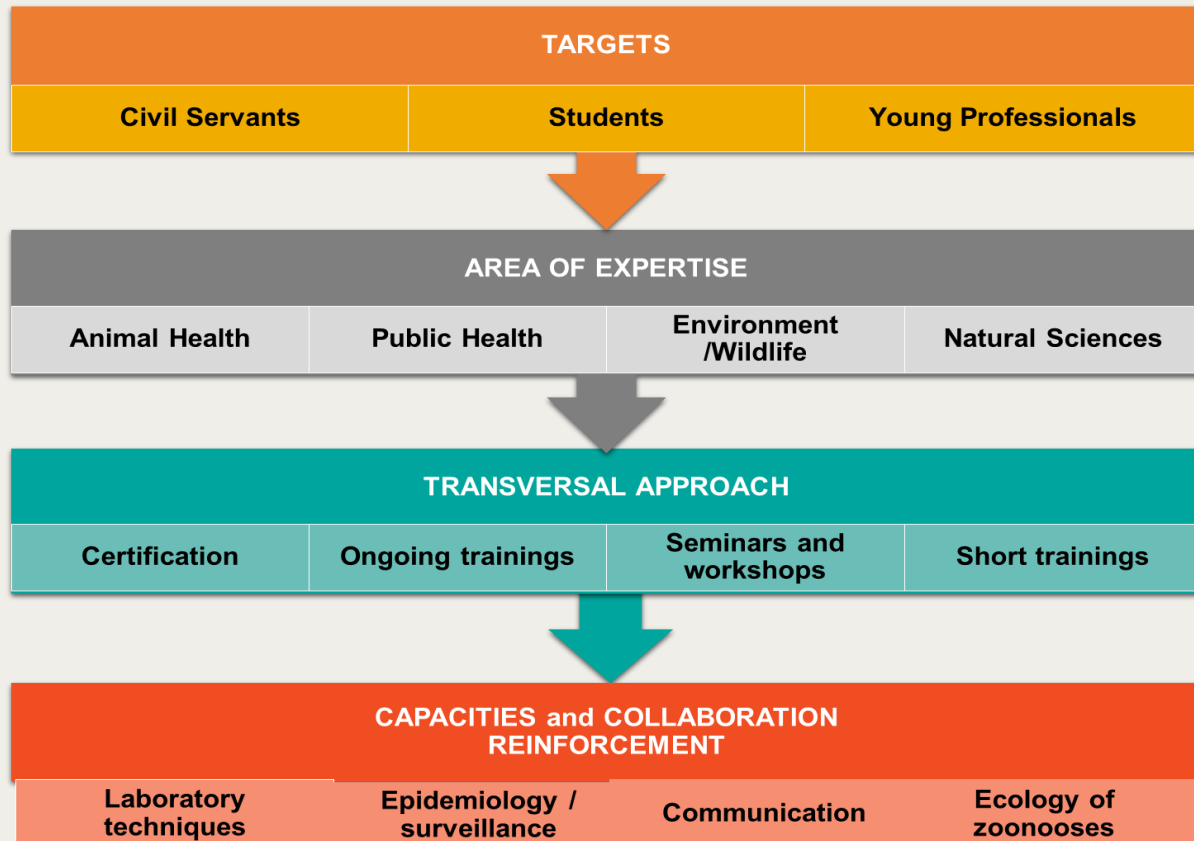
Project Structure



1. Capacity building



Objective 1 – Capacity Building



500 Health Professionals engaged in improved inter-sectoral collaboration

240 WOA National Focal Points trained
Laboratory, wildlife, disease reporting and communication

500+ professionals from 3 sectors trained in laboratory techniques, ecology and epidemiology

30 Veterinary Services Officers participated in WOA PVS Pathway training

20 Students involved in research activities (Masters and PhD level)

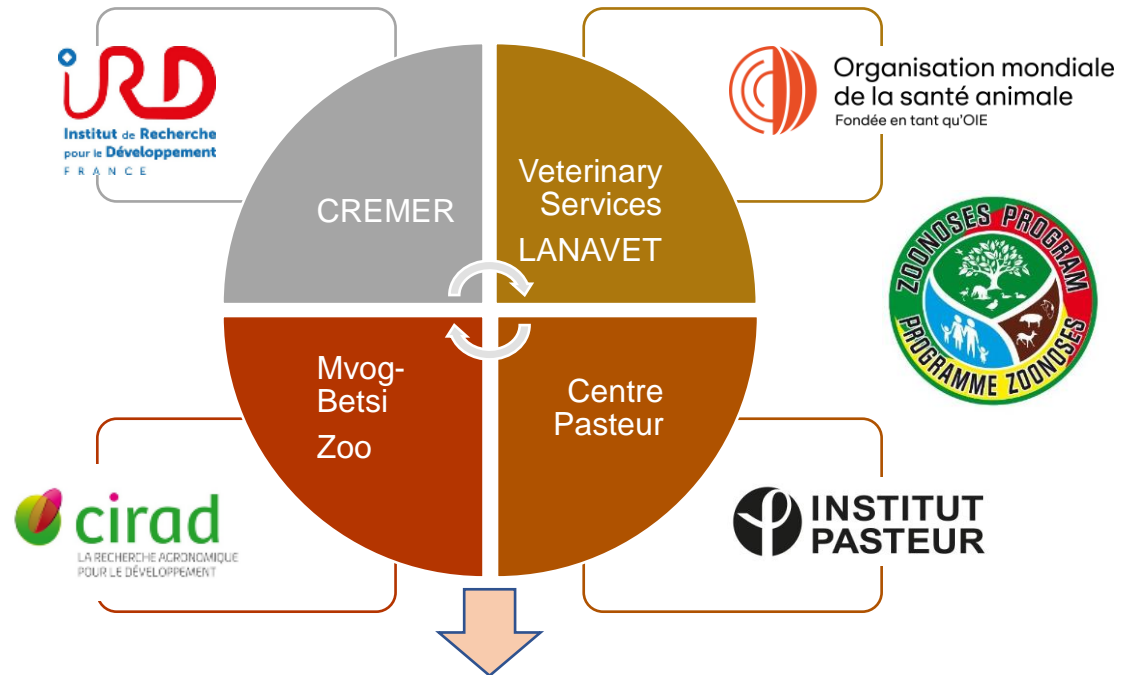
3 laboratory Twinning projects in target countries

30 grants provided to health professionals to attend a DUI on One Health and emerging diseases

One Health training to build capacity for hemorrhagic fever surveillance at the wildlife/domestic/human/environmental interface

Guinea (2019) and Cameroun (2022)

- **12 days** (3 days theory, 7 days practice, 2 days experience sharing)
- **55** professionals and students from 10 countries
- From animal health, human health and wildlife, ecology, biology background



General thematics, One Health concept applied to disease prevention and management



Laboratory techniques



Ecology of zoonosis



Epidemiology of zoonosis





One Health training in Guinea, 2019

Follow up surveys

Six-month follow up survey

20 respondents/26

- **95%** of respondents said that the knowledge acquired **helped them perform their professional duties**
- **75%** of respondents said that the knowledge acquired **helped them managed/respond to COVID-19 pandemic or other outbreak**







Three-year follow up survey

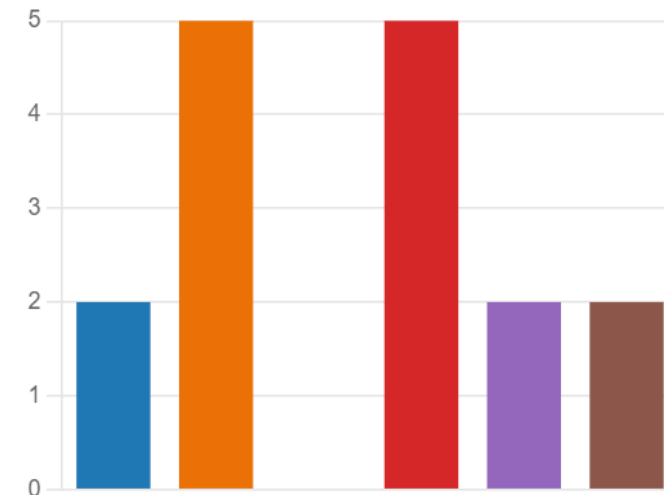
16 respondents/26

- **94%** of respondents said that the knowledge acquired **helped them perform their professional duties**
- **87,5%** of respondents said that this training **gave them the opportunity to contribute to a « One Health » activity**

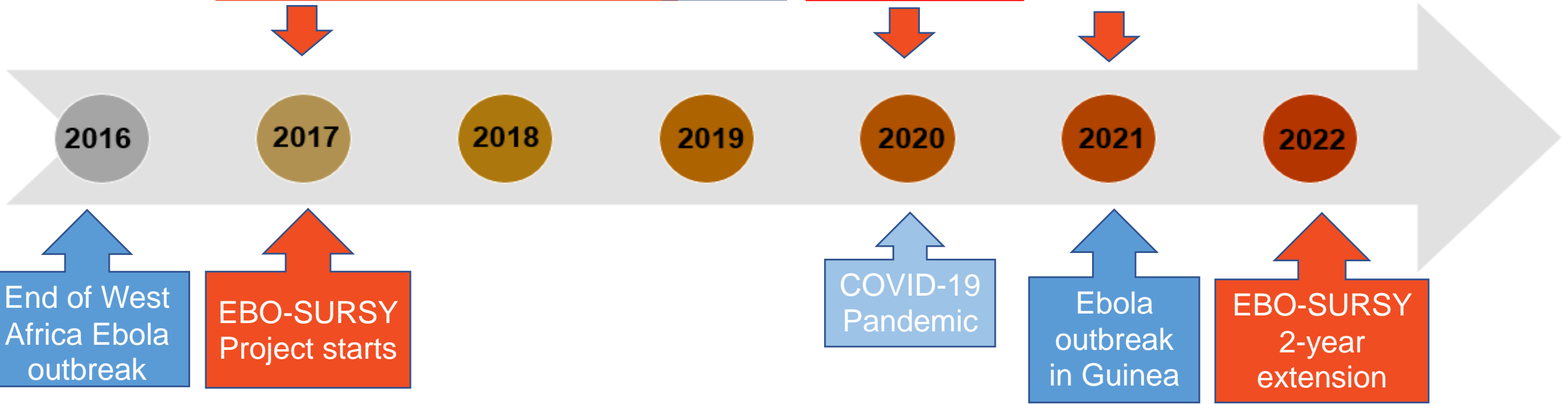
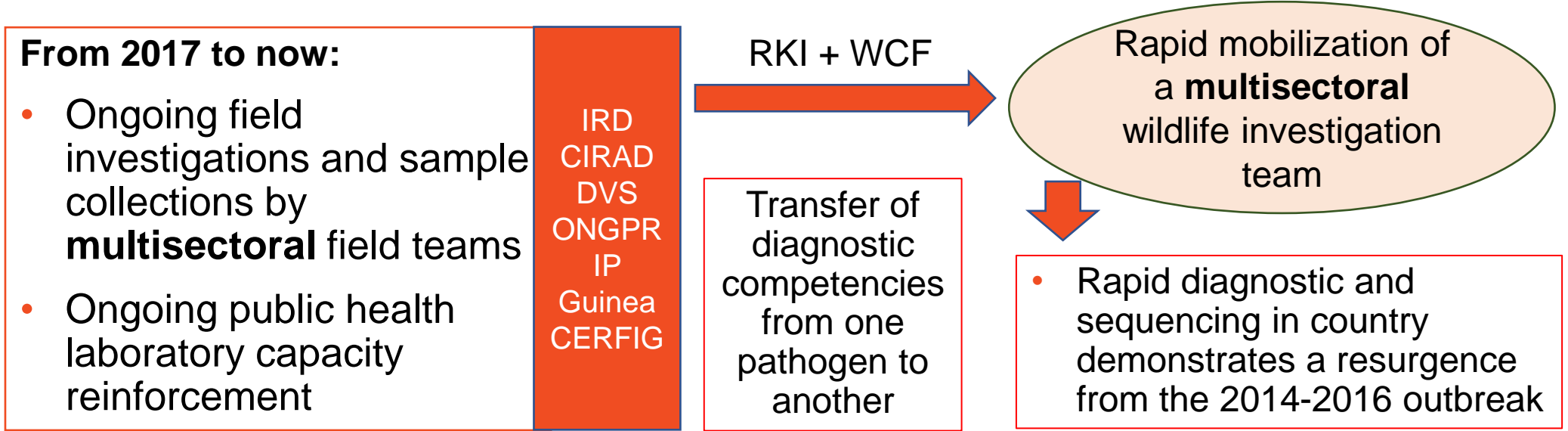
After three years, how did you make the best of this training?

[Plus de détails](#)

	J'ai trouvé un autre poste	2
	J'ai plus de responsabilités	5
	J'ai un meilleur salaire	0
	J'ai eu accès à d'autres formatio...	5
	Cela n'a rien changé à ma situat...	2
	Autre	2



"From now on, I approach health problems in a holistic, global way"





2. Raising awareness and communicating



+ 704 000
People sensitized

30
Scientific publications

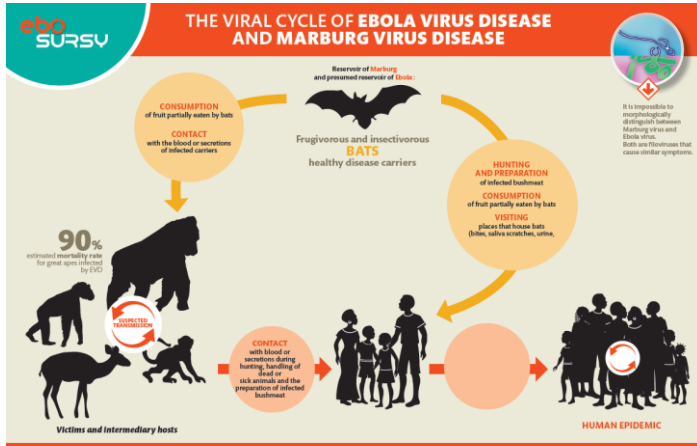
30
Conferences & presentations

28
Communication tools produced
(technical sheets, prevention sheets, board game, radio script)

34
Articles in the media

50% of people interviewed said the radio programme changed their **community's attitude towards wildlife** in a **significant and positive manner**





EBOLA AND MARBURG VIRUS DISEASES

EBOLA VIRUS disease (EVD) and MARBURG VIRUS disease are **COMPLEX ZOOZOSES** for which the transmission cycles remain the subject of scientific research. While these filoviruses are distinct, their cycles and their impact share many similar characteristics.

UNDERSTANDING THE CYCLE OF EBOLA AND MARBURG VIRUS DISEASES

CONCERNED SPECIES

Humans, non-human primates (chimpanzees, gorillas, monkeys), and **duiker antelopes**.

Pigs have been found to be susceptible to Ebola in laboratory settings, but their role in the epidemiology of the disease is unclear. Ebola virus antibodies have been found in dogs. However, to date, nothing suggests that domestic animals play an active epidemiological role in the transmission of EVD to humans.

RESERVOIR

Certain **frugivorous and insectivorous bats** are the presumed reservoir of Ebola and the confirmed reservoir of Marburg. While they do not themselves show signs of illness when infected, these bats can potentially transmit the virus to other species.

MODE OF TRANSMISSION

Inter- and intra-species transmission occurs **through direct contact** (via ingestion, broken skin, or mucous membranes) with the blood or other bodily fluids of infected animals and/or humans as well as through **indirect contact via contaminated surfaces or materials** (fruit, linens, and clothing).

Transmission at the wildlife-human interface is most often associated with **hunting, gathering wild animals that are sick or dead, and/or handling or consuming raw, contaminated bushmeat**.

ENVIRONMENTAL FACTORS

Disruptions to the forest ecosystem stemming from the extraction of natural resources and climate change. **Increased frequency of contact** between humans and wildlife.

CLINICAL SIGNS

WARNING SIGNS in animals

- **Death from unknown and/or suspicious causes** of a large number of great apes or of other animals susceptible to EVD infection.
- **Similar symptoms to those found in humans**, particularly multiple haemorrhages and bloody discharge from the nose, mouth, and anus.
- **Unusual animal behaviour.**

Persistence of the virus: the cadavers of animals and humans that died from either of these diseases are highly contagious and pose an elevated risk of disease transmission.

PRINCIPAL SYMPTOMS in humans

- **Incubation period:** 2 to 21 days (average: 4 to 9 days).
- **1st of symptoms:** muscle pain, headaches, and sore throat.
- **2nd of symptoms:** fever, bloody vomiting, bloody diarrhoea, bleeding of the nose or gums, rash, renal and hepatic insufficiency, and internal and external bleeding (for 1 out of 3 patients).

WHAT SHOULD YOU DO WHEN YOU SUSPECT A CASE IN WILDLIFE?

- 1 **DO NOT TOUCH THE CARCASS** without personal protective equipment (PPE).
- 2 **ENSURE GOOD COORDINATION** between Wildlife Services, Veterinary Services and Public Health Services.
- 3 **COLLECT SAMPLES**, if possible, and send them to the national veterinary laboratory or a reference laboratory.
- 4 **BURY THE CARCASS SUFFICIENTLY DEEP** between two layers of quicklime or burn it as described in Article 4.12.6 of the OIE Terrestrial Code.
- 5 **NOTIFY WOAHP BY E-MAIL OR FAX OR THROUGH WAHIS** of every confirmed case of emerging infectious diseases (like EVD and Marburg) as per Article 1.1.4 of the WOAHP Terrestrial Code.

WHAT MESSAGES SHOULD YOU SHARE WITH AT-RISK COMMUNITIES?

- 1 **DO NOT HUNT, PREPARE, HANDLE or EAT** bats.
- 2 Sick wild animals or those dead of unknown causes **SHOULD NOT BE HANDLED** or eaten.
- 3 **NEVER CONSUME** food containing animal blood nor raw or poorly cooked bushmeat.
- 4 **WASH YOUR HANDS** after handling bushmeat.
- 5 **ALERT** Veterinary Services or Wildlife Services, if you find a sick or dead wild animal.

Diseases of ANIMAL ORIGIN

TAKE ACTION for your community's health

GOOD PRACTICES

- 1 **DO NOT TOUCH OR CONSUME** animals that were found sick or dead.
- 2 **DO NOT MOVE OR TRY TO DISPOSE** of wild animal carcasses found dead.
- 3 **DO NOT SELL ANIMALS THAT WERE FOUND SICK OR DEAD**, their bodily fluids, including their blood, can make humans seriously ill.



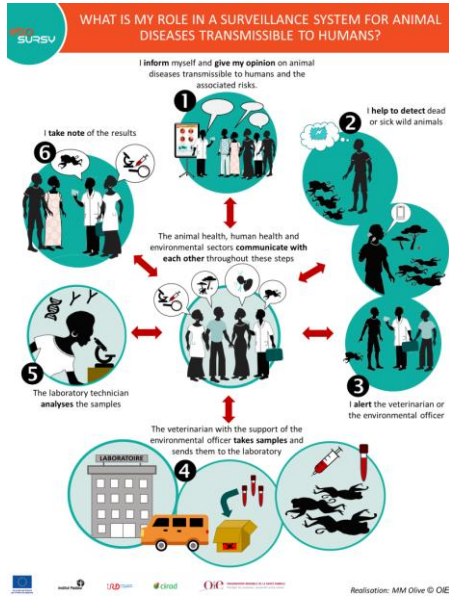
Inform Veterinary Services or Wildlife Services of all suspicious animal deaths.

When notified, these services can:

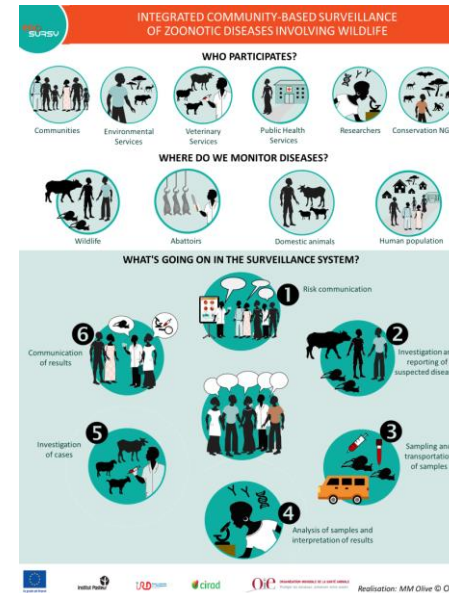
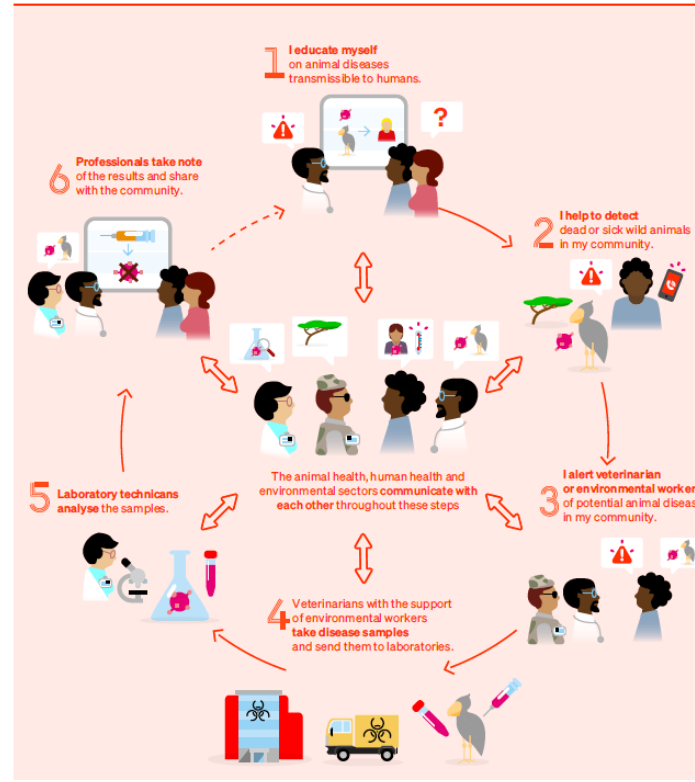
- 1 Collect samples to verify the animal's cause of death.
- 2 Coordinate their activities with human health services to minimise the risk of animal-human disease transmission.
- 3 Help protect your livestock and minimise the economic impacts of diseases transmitted by wildlife to your domestic animals.



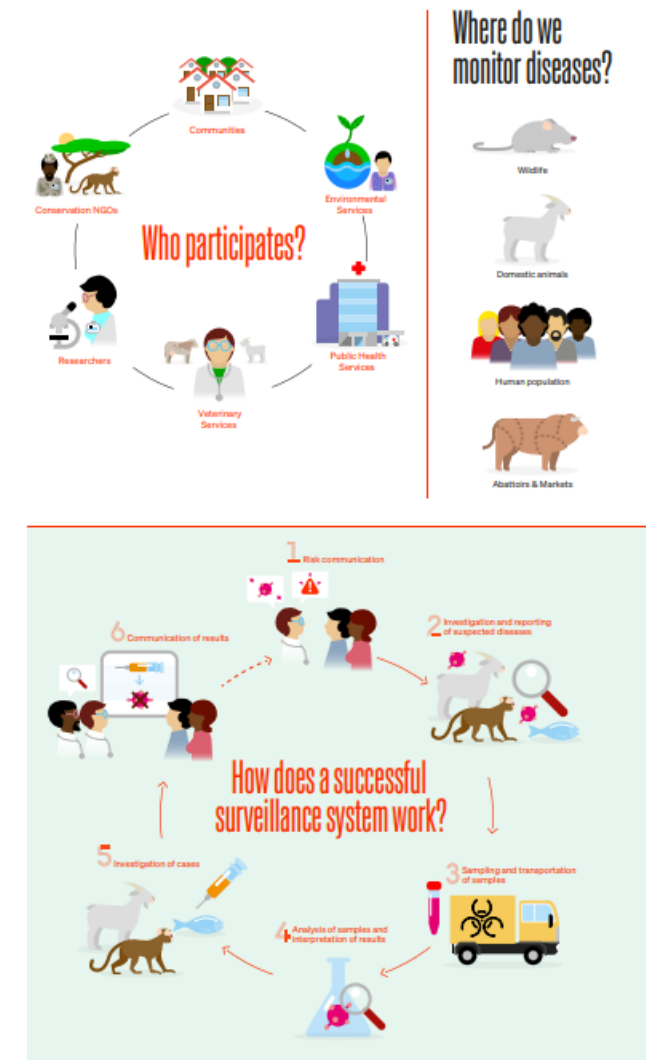
Surveillance systems:
Highlighting the role of the different stakeholders and the key aspect of intersectoral collaboration



WHAT IS MY ROLE AS A CITIZEN IN THE ANIMAL DISEASE SURVEILLANCE SYSTEM?



HOW DOES COMMUNITY-BASED SURVEILLANCE WORK?



Serious game ALERT: raising awareness of surveillance network actors



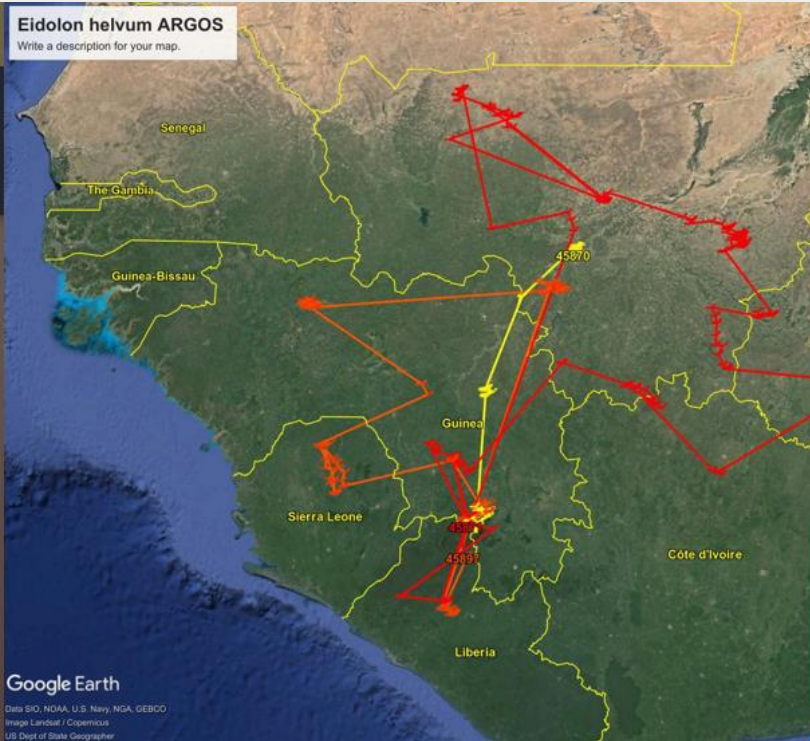
- Raise awareness among local communities and strengthen collaboration with the technical services in charge of the surveillance system
- Strengthen the commitment of the surveillance system's stakeholders and thus its effectiveness on a participatory basis
- Educational tool for professors in veterinary, medical and wildlife curriculum and para-veterinary schools
- Includes stakeholders from three sectors and four levels

3. Strengthen surveillance protocols



Risks assessment

- Understanding the ecology of bats at the human/animal/ecosystem interface
- Socio-cultural and environmental dimension of emergences
- Integration of project data & modeling: molecular and ecosystemic scale



42 000 animal samples in the database

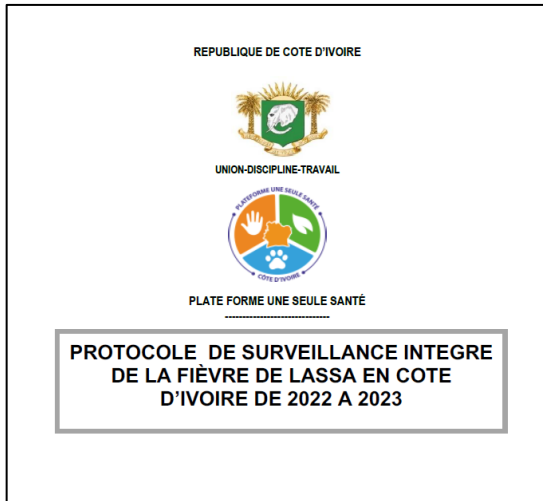
27 studies (Ecology, Genetics, Socio-economics)

10 diagnostic methodologies developed

140 missions in 5 countries

10 ARGOS & 30 GPS tags on fruit bats

4 500 human samples collected



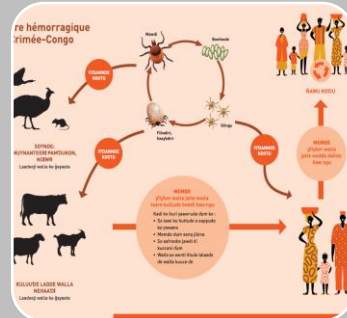
Regional Workshops
organised by WHOA/CIRAD

- WOAH Delegates and Focal points: **Animal Health + environment sector**
- **OUTPUT**
A draft of protocol of surveillance for a viral haemorrhagic fever per country



Multisectoral national workshops
initiated and organised by Veterinary Services with WOAH support

- **Animal health, human health, environment, finances, defense, education, One Health platform...**
- **OUTPUT**
Finalisation and validation of a national multisectoral protocol of surveillance for a viral haemorrhagic fever



Multisectoral national implementation
Partial support from WOAH

- Multisectoral workshop to adapt and translate Project communication tools
- **OUTPUT**
Adapted communication tools to support implementation of awareness raising activities identified in the surveillance plan



Phase 2: Building on successes



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Objectives

Strengthen multisectoral surveillance systems for sustainable, risk-informed prevention and preparedness to zoonotic disease threats at local, national and regional levels in Africa using a One Health approach

1: Multisectoral cooperation is practiced among animal and public health authorities when preparing for and responding to zoonotic outbreaks at the animal-human-environment interface

2: National, regional and international standards and policies for animal, including wildlife, health surveillance are implemented

3: Informed stakeholders are actively engaging in surveillance systems while acknowledging the importance of wildlife for ecosystem health

Build on lessons learned and successes

Continued focus on building capacities and scientific investigations, raising awareness, promoting the One Health approach and reinforcing integrated surveillance systems and reporting tools

Expand geographic scope: continue in current **10** West and Central African countries bringing in another **8** countries in Eastern and Southern Africa

Include a wider range of zoonotic pathogens considered as a high priority by Member countries

Strengthen commitments and widen partnerships at the national and regional level.

Thank you for your attention!

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