



Preventing zoonotic  
disease emergence



**FRANCE22**  
PRÉSIDENTE FRANÇAISE  
DU CONSEIL DE L'UNION  
EUROPÉENNE



# Context

# Emerging infectious diseases: A worldwide threat

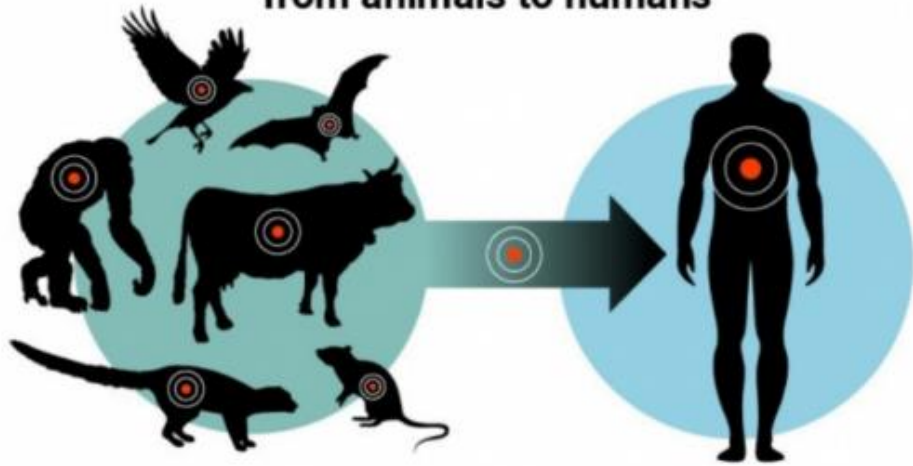


Infectious zoonotic disease emergence with transmission from animal to people

# The importance of zoonoses

## What are zoonoses and how prevalent are they?

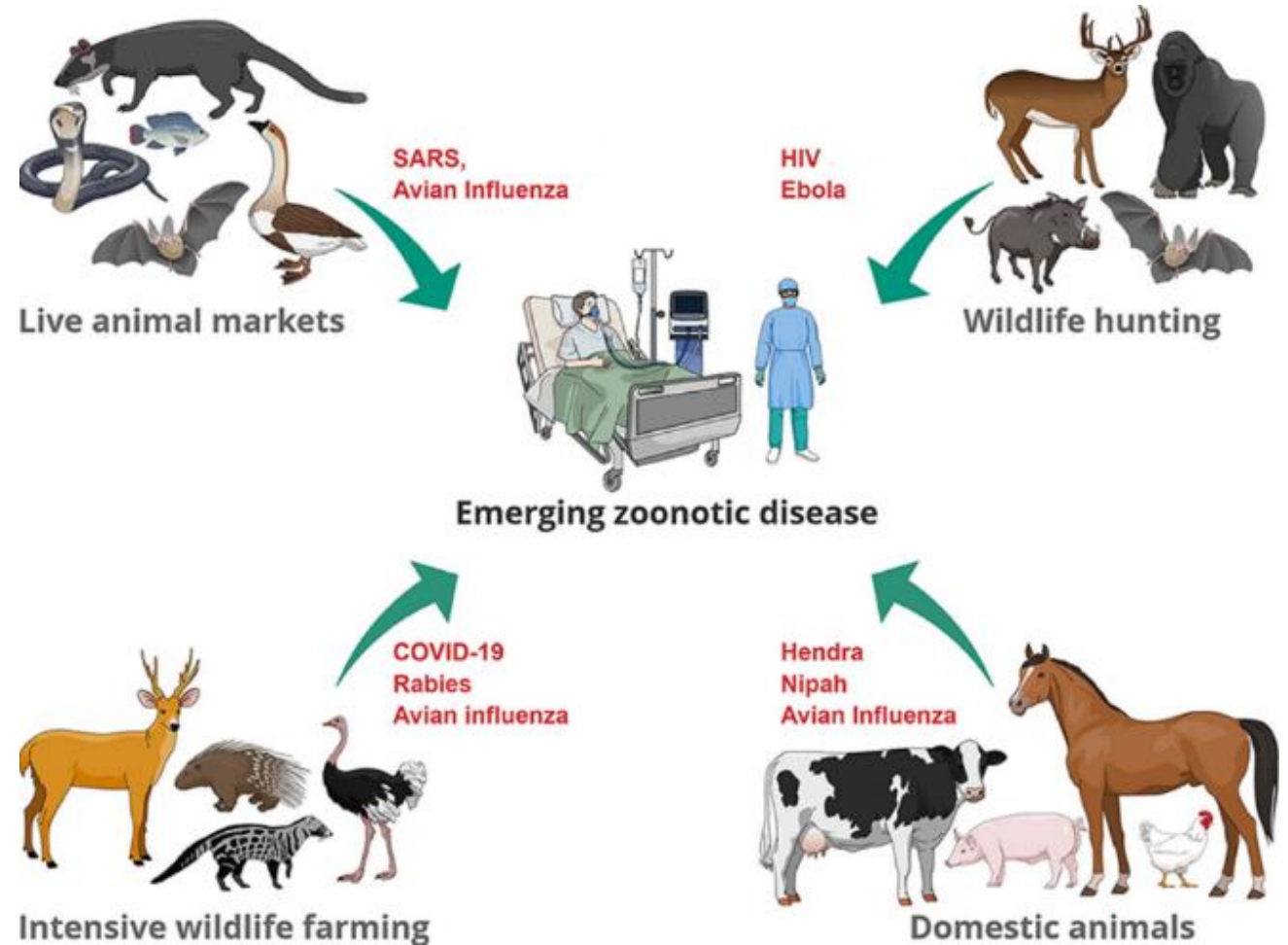
Zoonoses are diseases transmitted from animals to humans



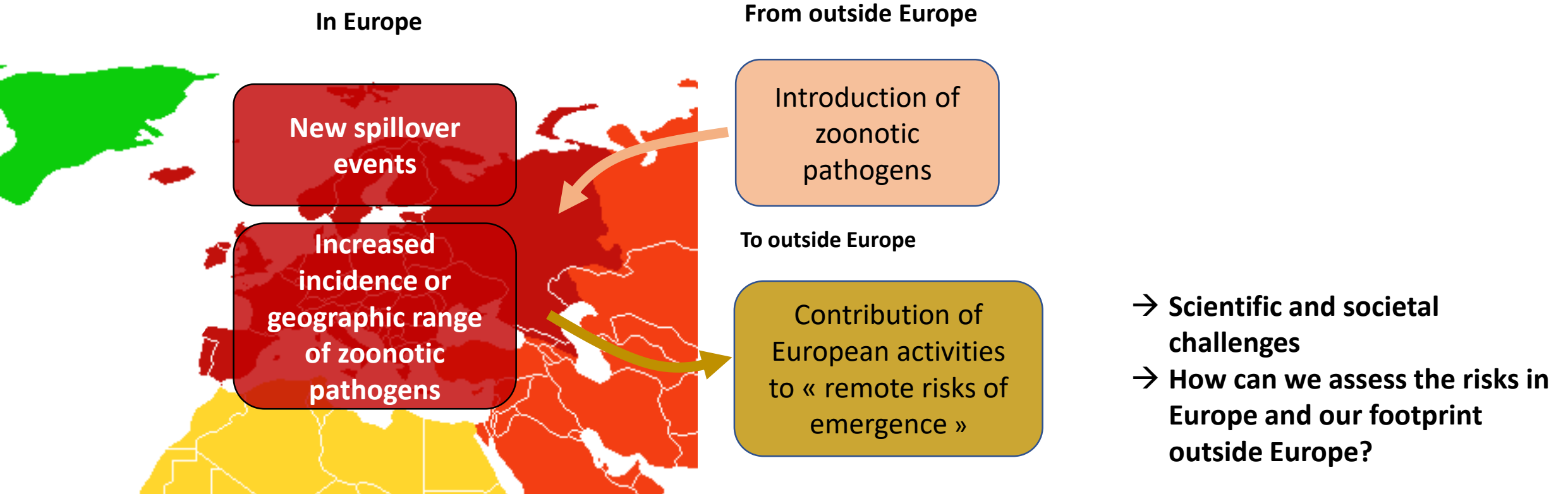
They comprise: **60%** of all infectious diseases in humans and **75%** of all emerging infectious diseases

Source: UNEP Frontiers 2016 Report

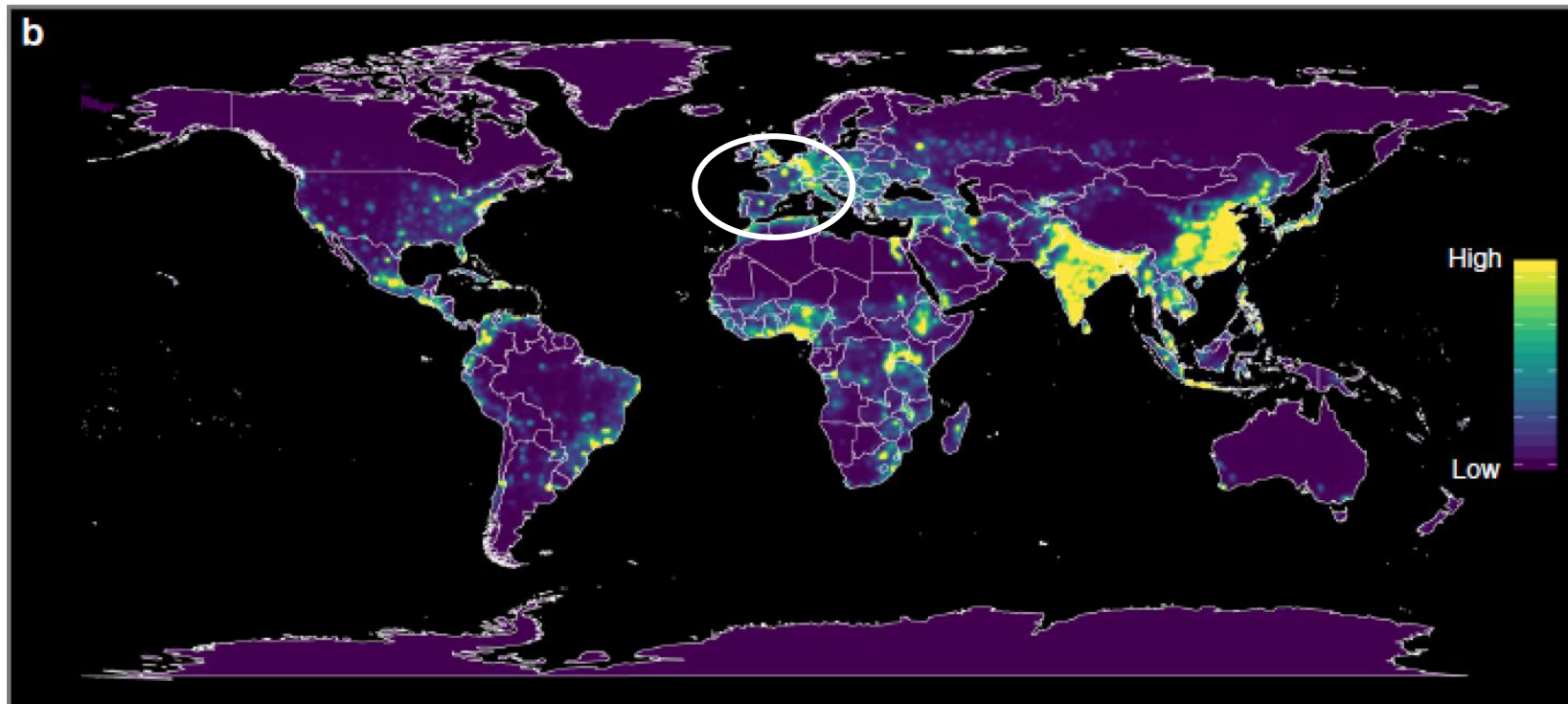
#COVID19



# Emerging infectious diseases: An european story as well



- Emergence events : « the **original** case or cluster of cases representing an infectious disease emerging in human populations **for the first time** »
- Worldwide, 147 events from **wildlife origin between 1970-2008**



**24 events for Europe**  
Notably 12 by food-borne bacteria or parasites  
4 virus

Heat maps of predicted relative risk distribution of zoonotic (from wildlife) emerging infectious disease events

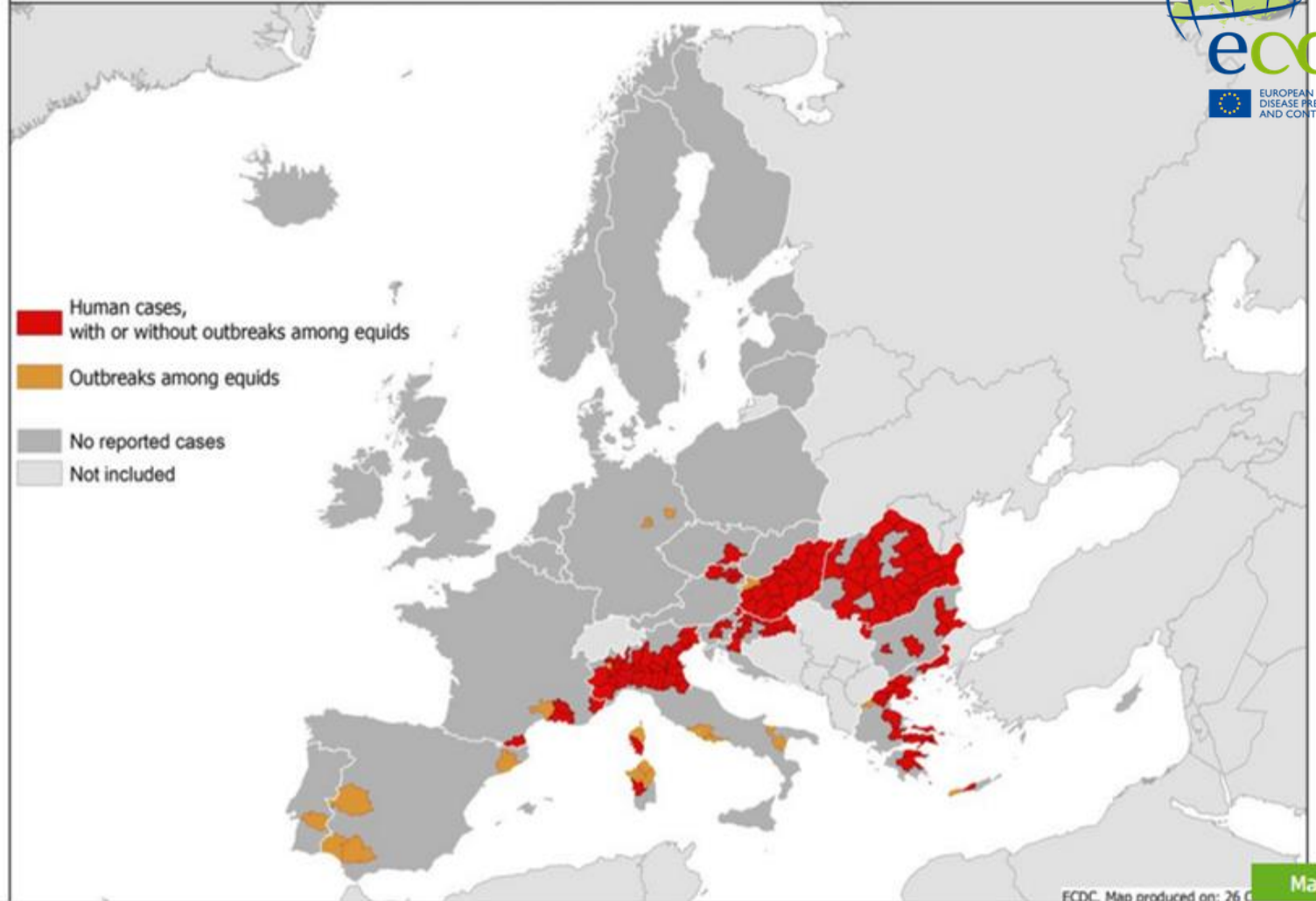
Allen et al 2017 Nature communication

Increased incidence or geographic range of zoonotic pathogens

Introduction of zoonotic pathogens

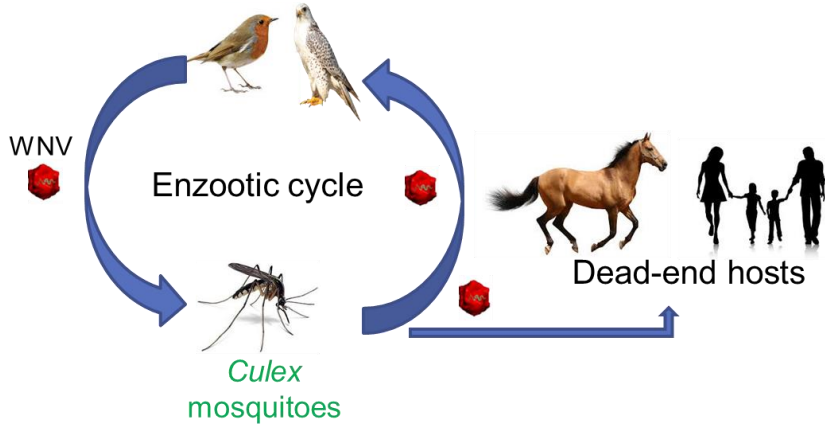
# West Nile, an emerging virus in Europe

Distribution of West Nile virus infections among humans and outbreaks among equids in the EU  
Transmission season 2018; latest data update 25 Oct 2018



ECDC. Map produced on: 26 Oct 2018

Avifauna



By In 2018

**1 489** human cases

**171** deaths

**276** outbreaks among equids

New spillover events

Introduction of zoonotic pathogens

Influenza emergence and zoonotic potential in Europe



**Wild migratory birds present in Europe (end of summer and falls) and coming from Asia highly contaminated for 5 years by H5Nx (mainly H5N8) Clade 2.3.4.4b of the A/Goose/Guangdong/1996-Like H5N1 Highly Pathogenic Avian Influenza Viruses**



**Autumn 2021** : Many outbreaks in Europe with a HP H5N1 both in wildlife and domestic birds.

**2021**: No event of transmission to human in EU at the time this year

...



**Summer 2021** : 15% of the investigated wildbirds on lake Ubsu-Nur in Russia/Mongolia border contaminated by HP H5Nx

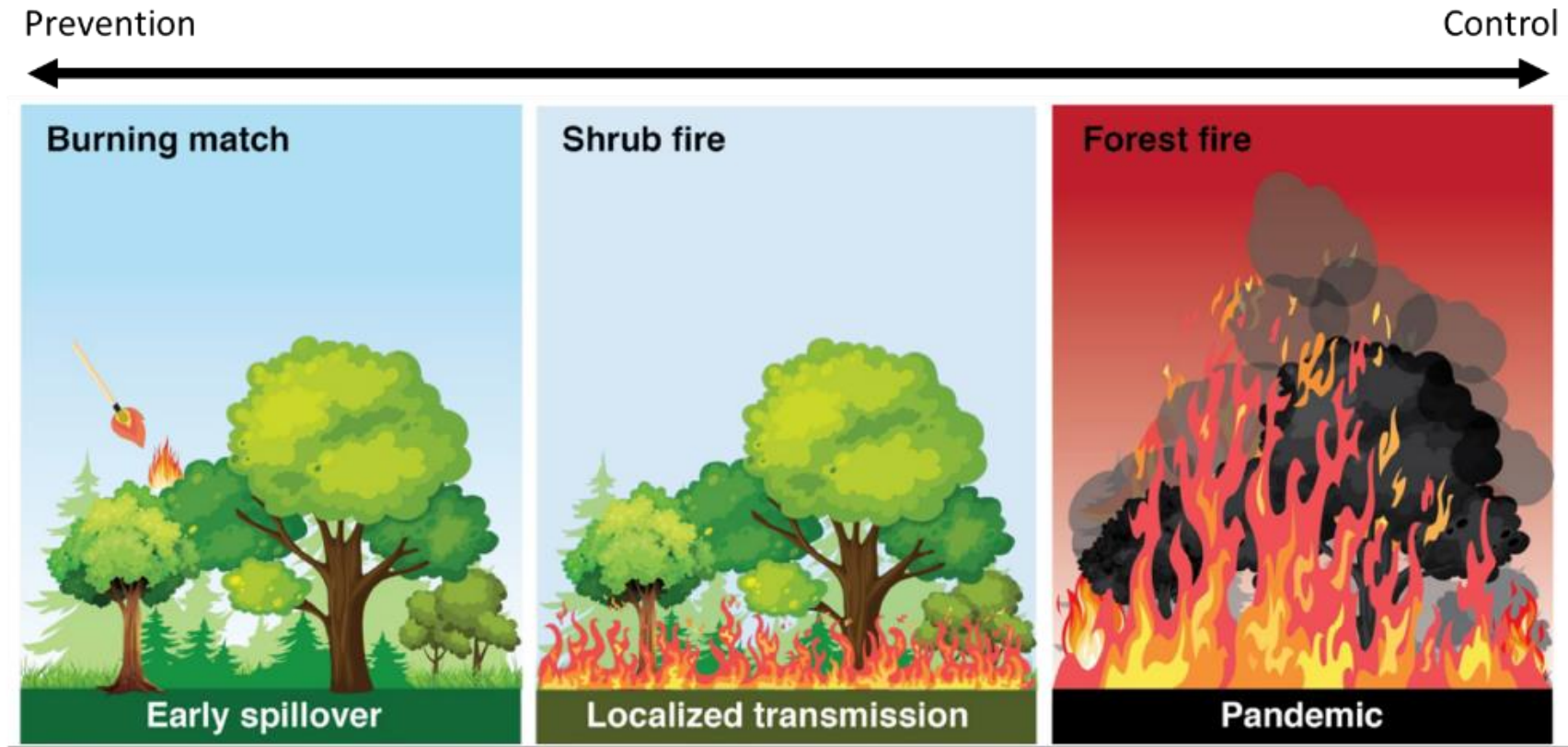
**But weak signal from Russia 2020**: employees of a big poultry farm (800 000 birds) highly exposed to contaminated birds during stamping out showed antibodies and weak symptoms against H5N8.





# Context

## The need for a change in paradigm: **PREVENTION** and **BOTTOM-UP** approaches



IPBES, 2020

# An international initiative



# PREZODE: a common framework to foster collaboration and impact



- With this idea in mind, the PREZODE initiative was launched in 2021 at the **One Planet Summit** by the President of France Emmanuel Macron.
- During this launch, it also received the support of the European Commission through the voice of its President, Ursula von der Leyen and of the FAO through the voice of its Director General Qu Dongyu.



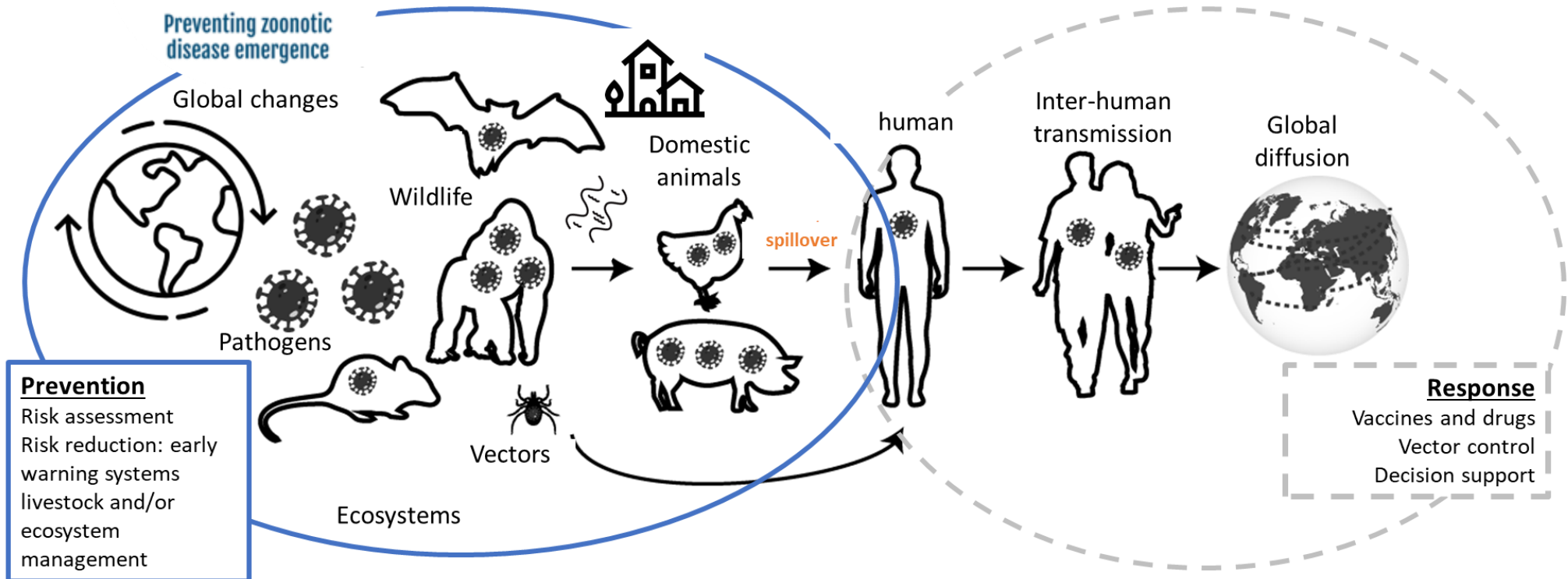
Working with countries and with other initiatives for avoiding animal born pandemics, while ensuring food security and livelihoods for the poorest communities





**Preparedness**

|   |   |
|---|---|
| Pathogen detection<br>Local to global<br>surveillance systems | Immune responses<br>Pathogen adaptation<br>to hosts |
|---|---|



## Objectives

The international initiative PREZODE aims to constitute:

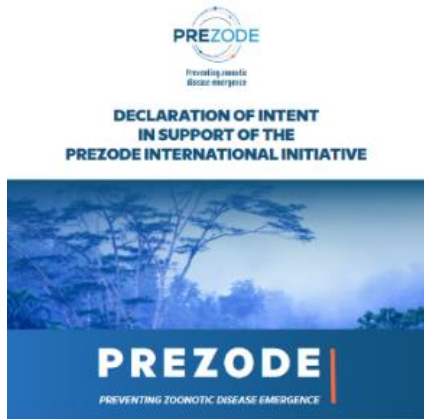
- A framework for implementing and coordinating research projects, surveillance networks and operational projects to maximize their impact.
- A collaborative platform for sharing knowledge from past, current and future projects and for capitalizing on activities in different regions of the world
- A resource center available to decision-makers to enable public policies to be put in place for reducing the risks of zoonotic infectious diseases emergence.

# PREZODE: a common framework to foster collaboration and impact



- So far, 7 countries and around 100 institutions have signed the declaration of intent in support of the PREZODE initiative

- Altogether they composed the partners of the PREZODE initiative



# Proposed interim governance until end 2022

## This interim governance will:

- prepare and adopt the final international governance of PREZODE
- review and adopt the strategic agenda of the initiative

## Interim Steering Committee

- Two Co-Chairs
- One representative per signatory country and one per international organization as observer;
- Two elected representatives per world region; observer countries

## Interim Secretariat

- Staffed by Cirad, INRAE, IRD
- Other contributions are welcome!

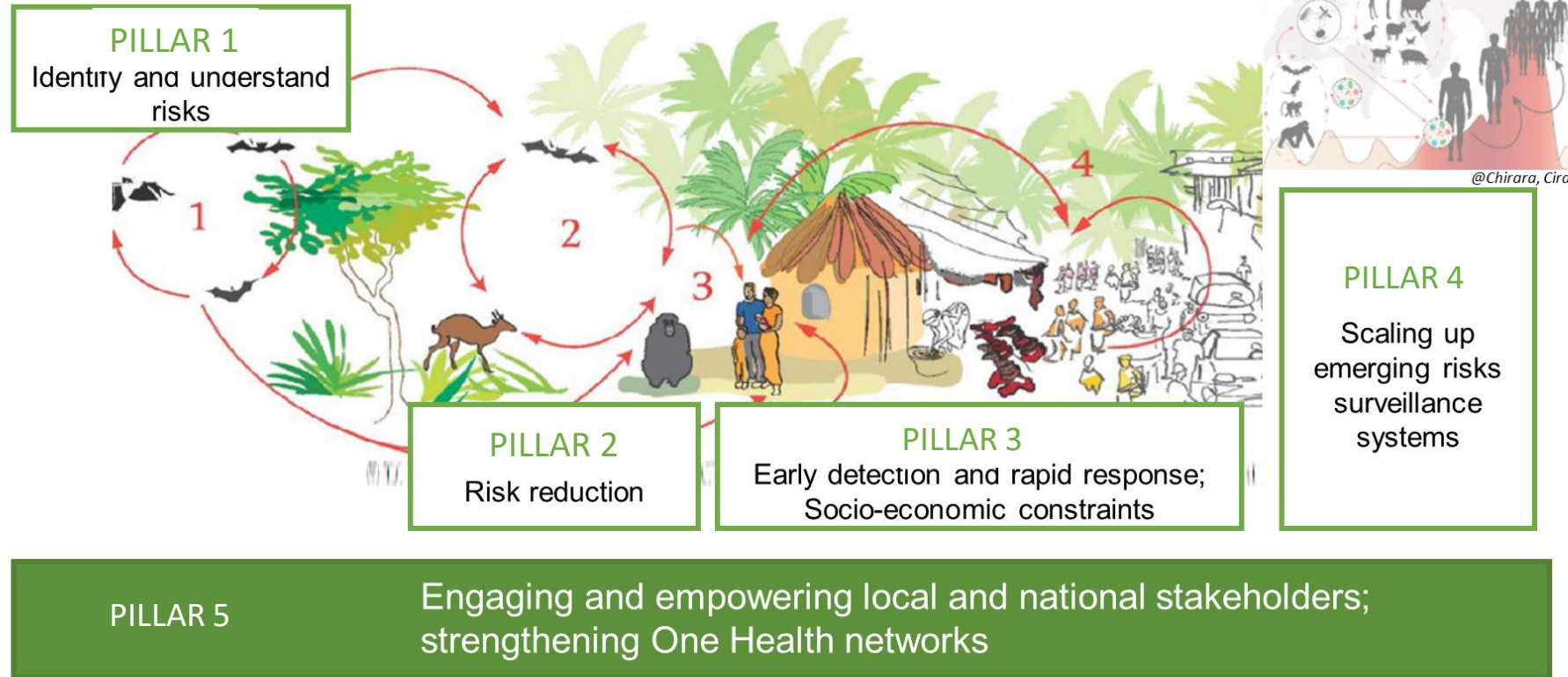
## General Assembly

- One representative per signatory
- Observer organizations and countries



# Actions and Next Steps

# VISION AND OBJECTIVES



IDENTIFY AND UNDERSTAND RISKS to  
CO-DEVELOP SOLUTIONS TO REDUCE THEM



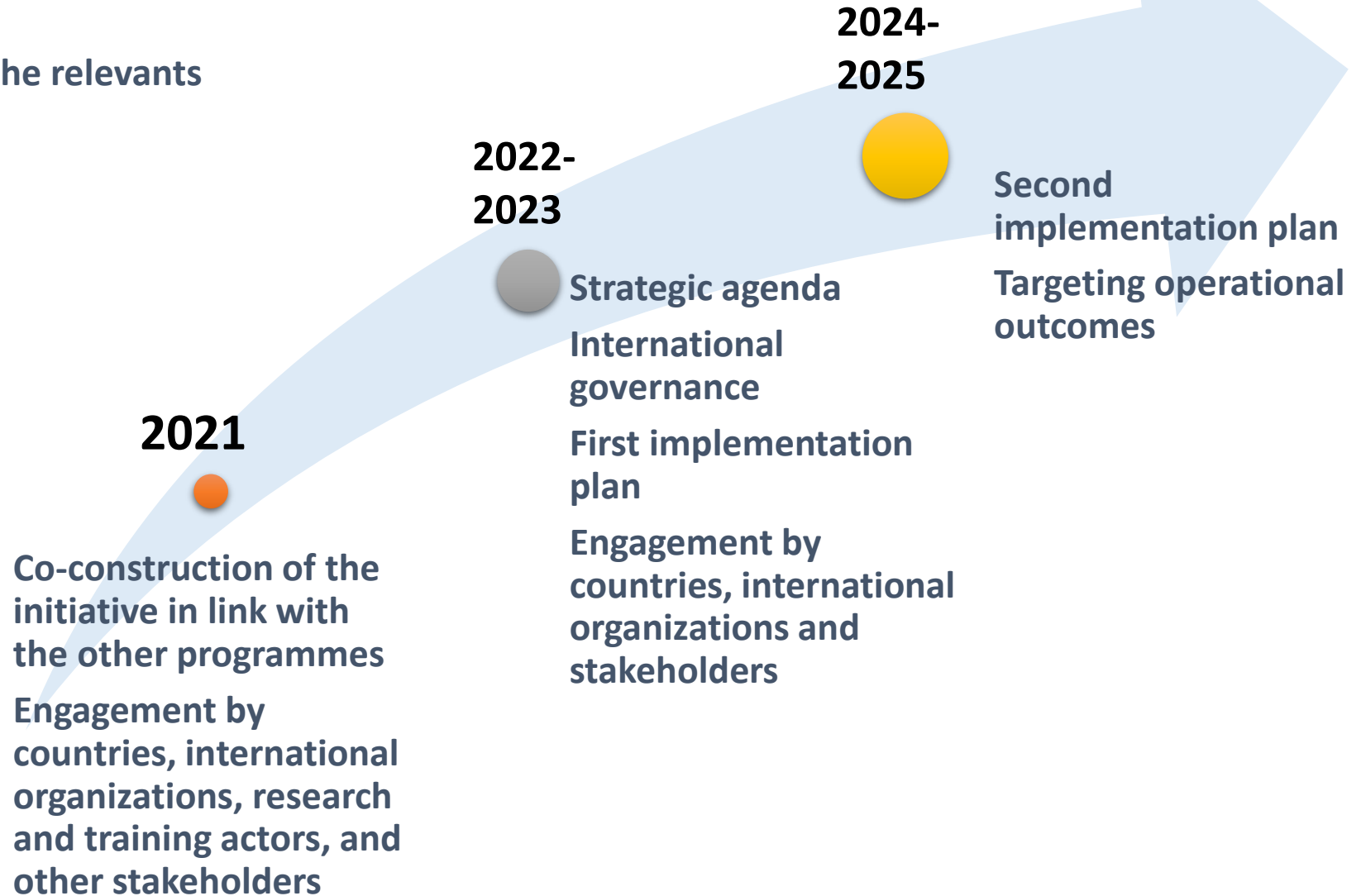
STRENGTHENING EARLY WARNING  
SYSTEMS, OPERATIONAL  
FROM LOCAL TO GLOBAL

# WHERE ARE WE? WHAT ARE THE NEXT STEPS

- Framing the initiative
  - Co-developing the initiative with all the relevant stakeholders
    - Regional co-design workshops
    - Scientific events
- ➔ Strategic agenda

## CONTRIBUTIONS NEEDED

- Alignment across existing and planned initiatives
- International organisations
- Foundations
- Countries
- Science and development partners



# Methodology : PREZODE's co-construction process

The 3 phases of the regional workshops took place in the year 2021.

- COMMON VISION to tackle zoonotic risks
- OBSTACLES

1

June 2021

- NEED FOR CHANGES
- ACTORS INVOLVED

2

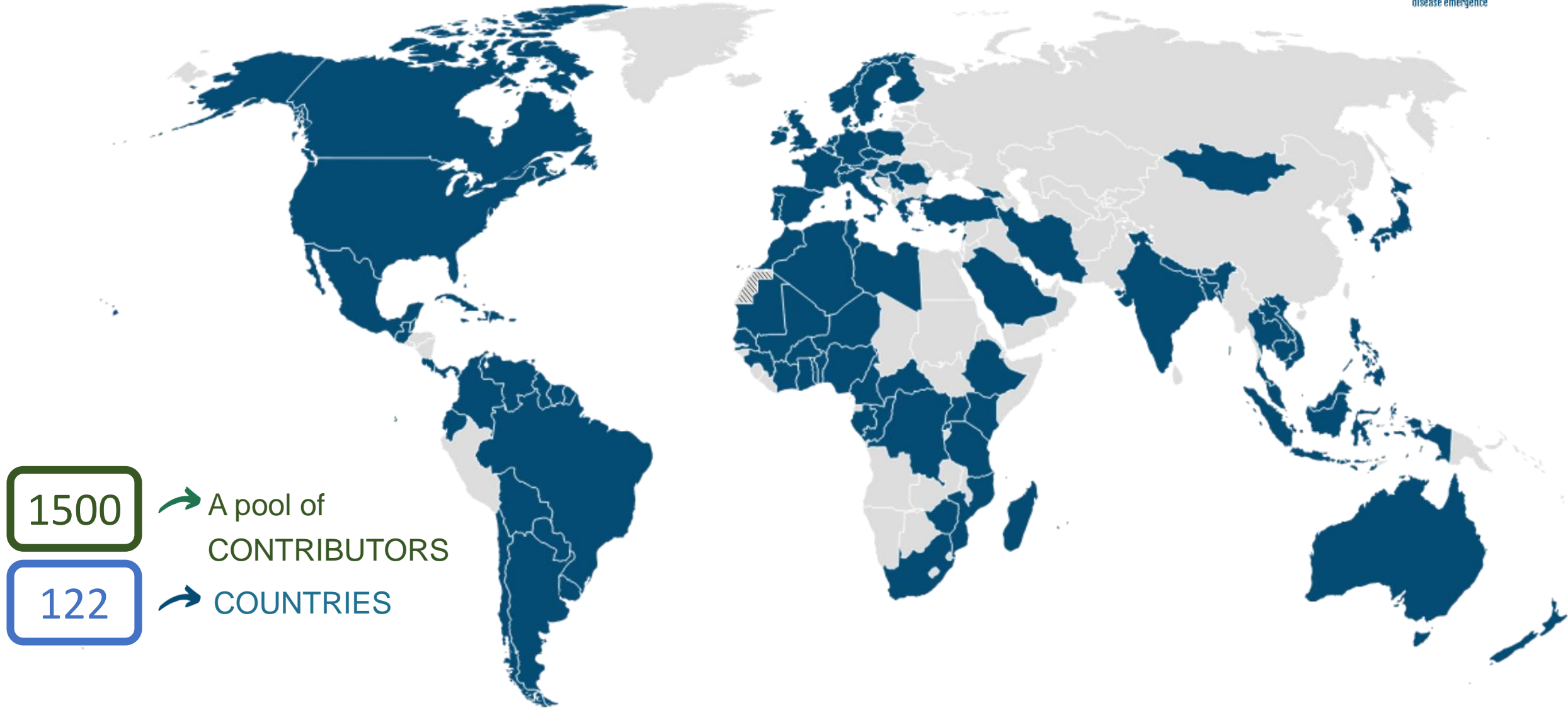
September 2021

- HOW TO PROMOTE CHANGES ?
- WHICH ACTIVITIES ?

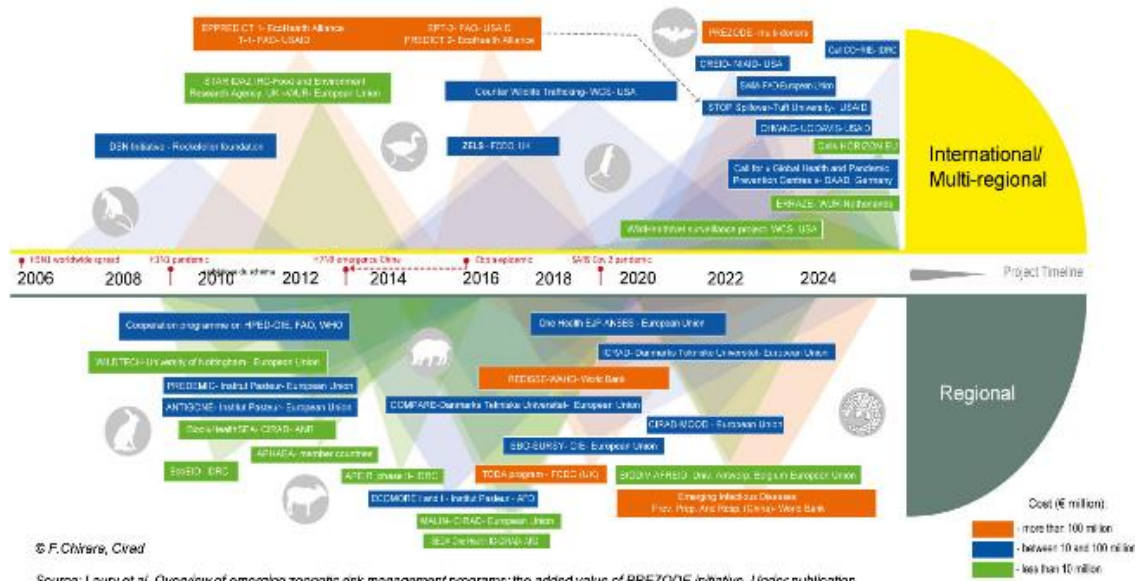
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November 2021

# PREZODE Geographical distribution of co-design process participants



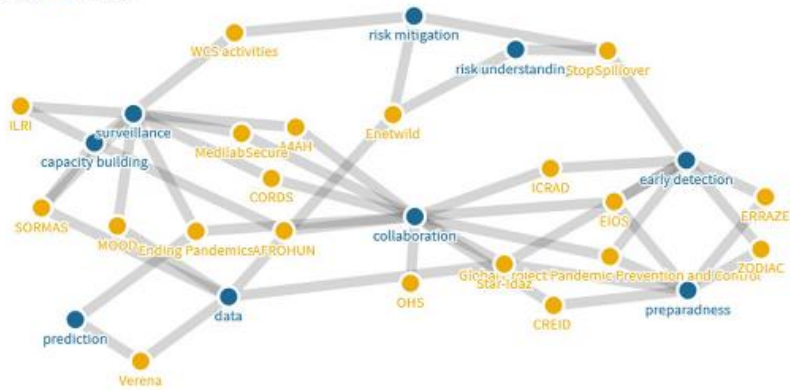
# PREZODE: a common framework to foster collaboration and impact



© F. Chêne, Civad

Source: Laury et al. Overview of emerging zoonotic risk management programs: the added value of PREZODE initiative. Under publication

group ● topic ○ initiative

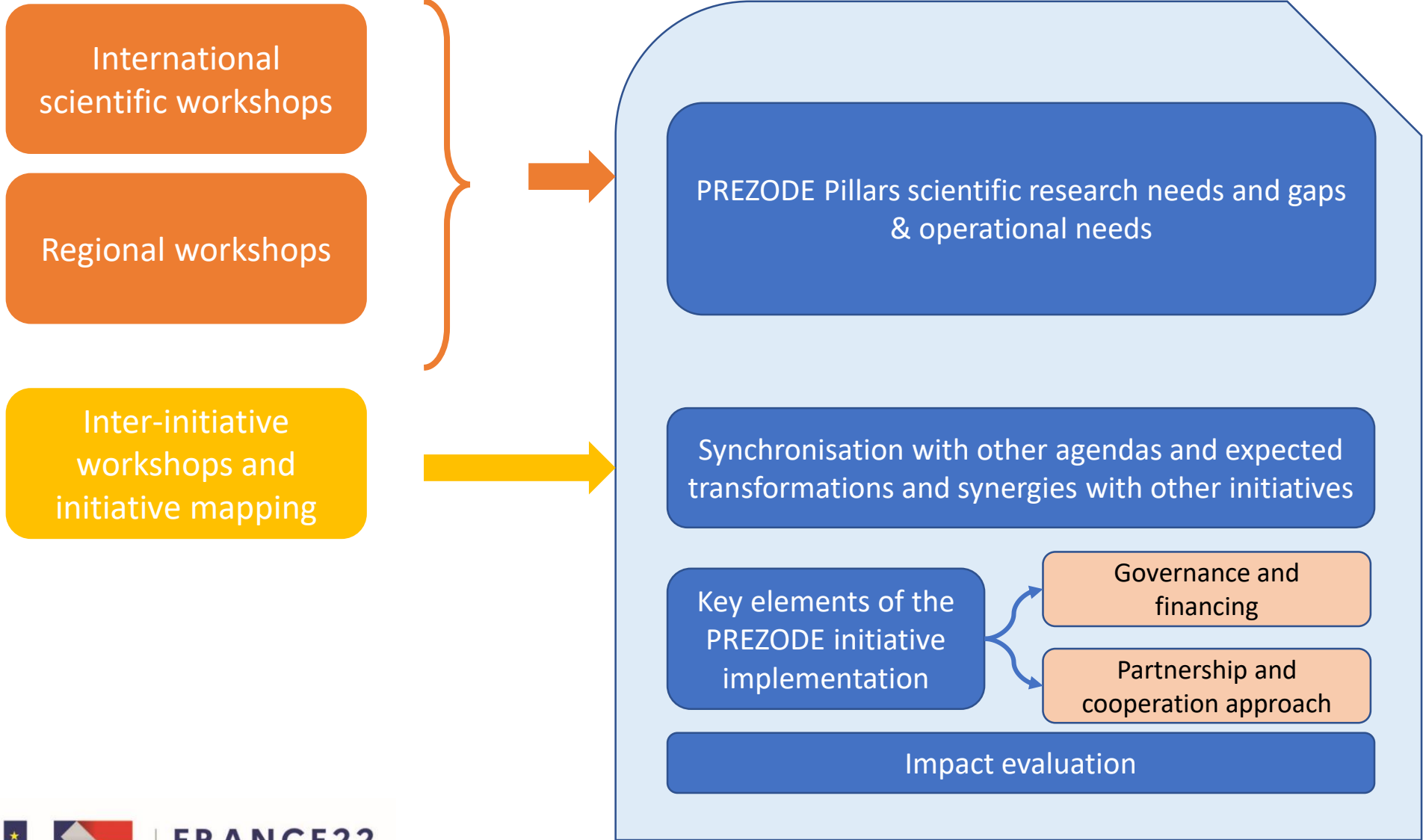


## Ensuring an optimal

- Connection
- Communication
- Collaboration

## With and between other programmes

# PREZODE Strategic Scientific and Operational Agenda – Provisional content



## PREZODE: a common framework to foster collaboration and impact

- By building collaborations with other partners
- By securing the required level of funding
- By building joint programmes
- In 2022:
  - Setting up the interim governance for the initiative
    - ➔ Meeting of the signatory countries
    - ➔ Meeting of all partners
  - Adopting a Strategic Agenda
    - ➔ Co-elaborated with the partners until June 2022
  - Launching the first operational programmes





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THANKS for YOUR ATTENTION

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Auteur.e  
<https://prezode.org/Get-involved>



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