



Food and Agriculture  
Organization of the  
United Nations

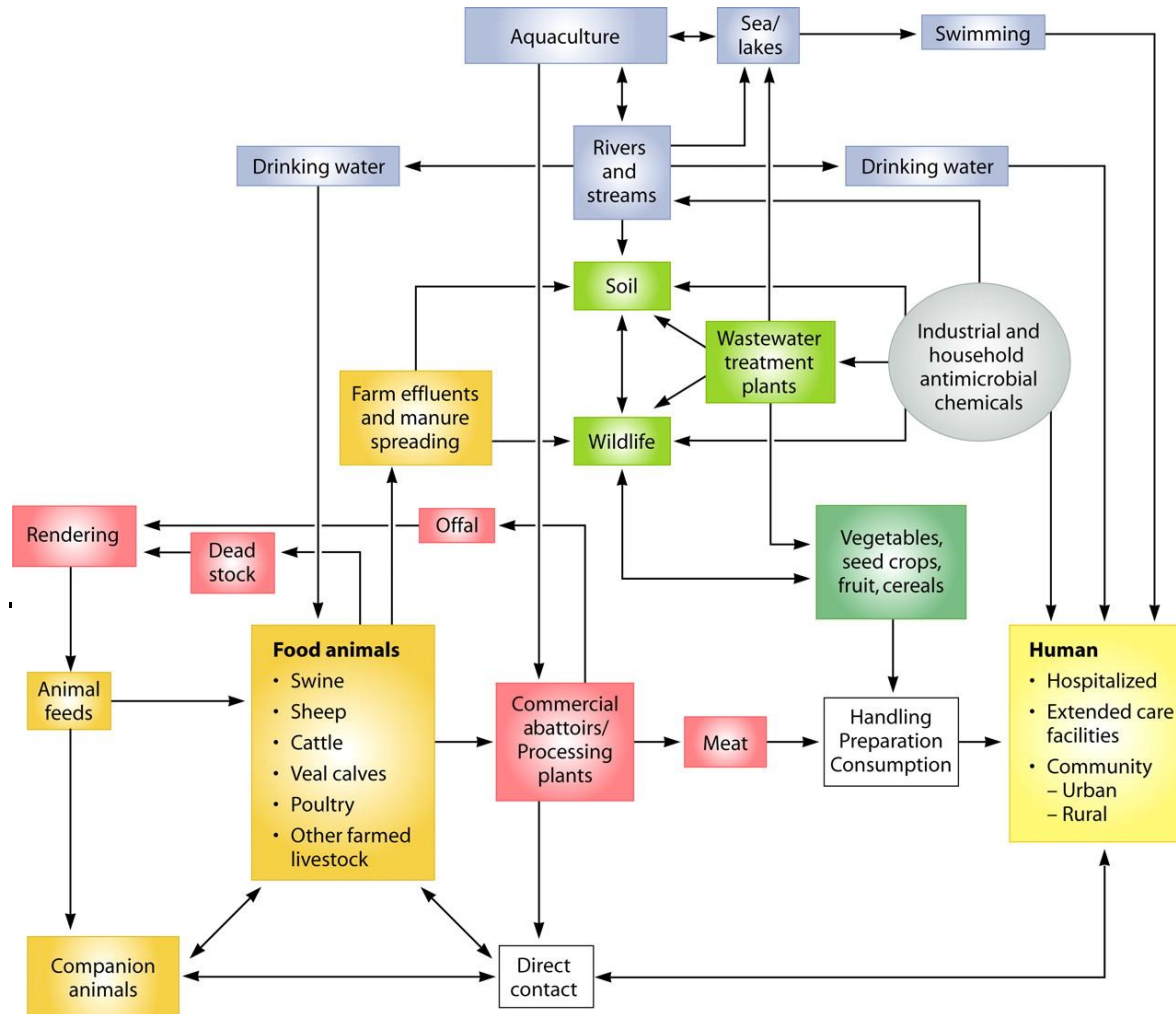
SUSTAINABLE  
DEVELOPMENT  
GOALS



## **TISSA & FAO's Work on Integrated Antimicrobial Resistance and Antimicrobial Use monitoring and surveillance**



Integrated surveillance is essential for AMR control..



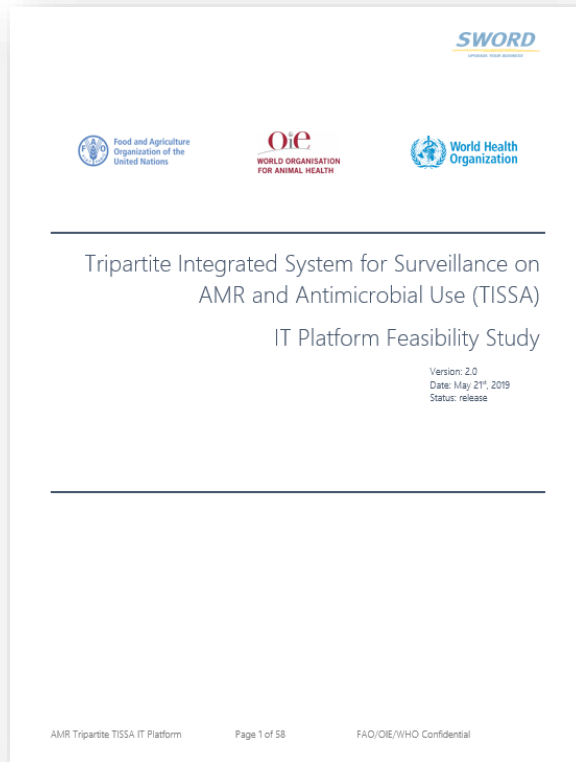
**Antimicrobial Resistance Multi-Partner Trust Fund**  
 Combatting the rising global threat of AMR through a One Health Approach

*Davies J, Davies D. 2010 Origins and evolution of antibiotic resistance. Microbiol. Mol. Biol. Rev.*



## TISSA: Tripartite Integrated System for Surveillance on AMR and AMU

### GLOBAL LANDSCAPE (WHO, OIE, FAO)

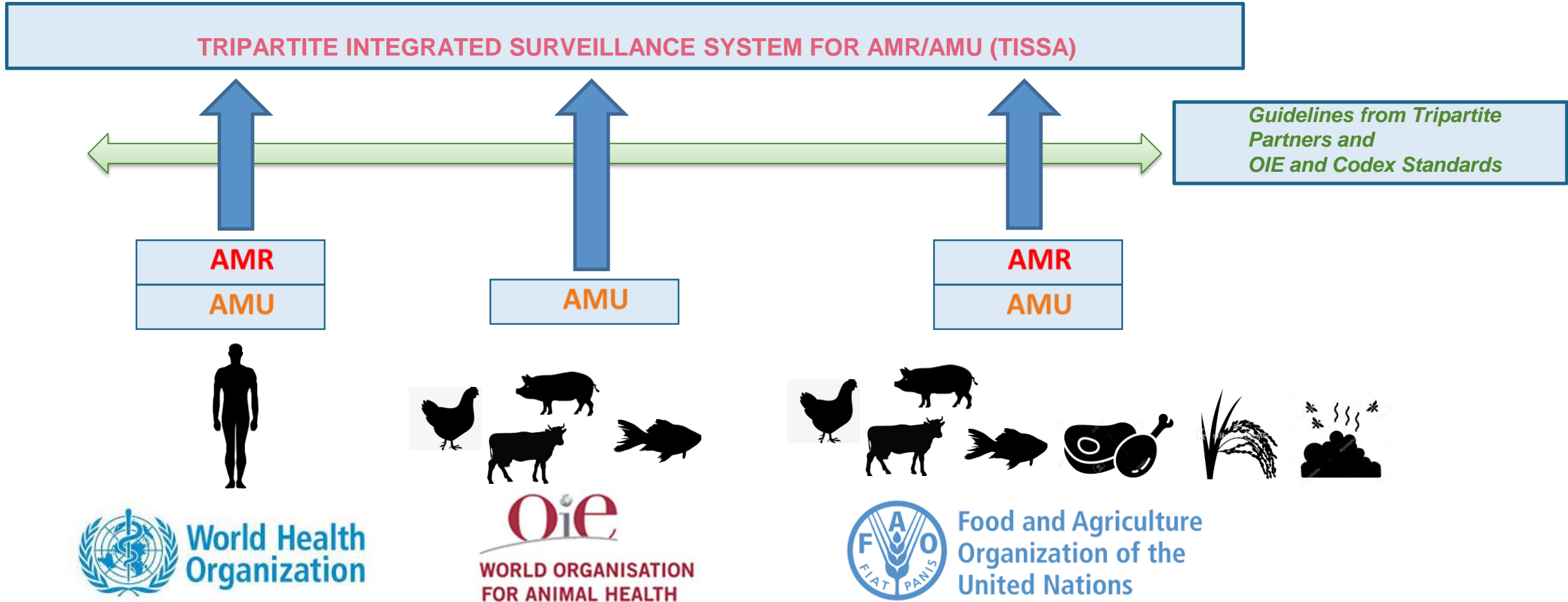


### Purpose:

A dynamic Tripartite platform intended to make available/display in a user-friendly manner on a global and regional basis validated and official data provided by countries to FAO, OIE and WHO on patterns and trends in AMU and AMR in humans, animals, food, plants and environment, while recognizing that different sectors may be at different levels of advancement.

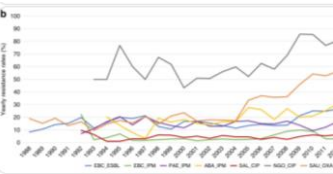


# TISSA in development





## 4. FAO AMR data services (in development)



Platform	In development	In inception
Data collection and sharing	WHONET Excel files	WHONET in adaptation Excel tool in RAP
Mechanisms for implementation	Manuals, Protocols, SOPs WHO Offices Collaborative AMR centers Surveillance Networks	manuals, standards, OIE Delegates and National Focal Points for Veterinary Products
Reporting	Yes Country level	Not yet (Country, Regional levels)
Type of data	<b>AMR</b> humans <b>AMU</b> humans	<b>AMU</b> animals <b>AMR</b> animals and food <b>TBC AMU</b> plants/crops

## FAO Action Plan on AMR 2021-2025 – The 5 Objectives

# The how?

# FAO

**Food and agriculture sectors,  
dependent livelihoods and economies  
are made resilient to the impacts of AMR**

Strengthening **governance**  
and allocating **resources**  
to accelerate and sustain progress

Increasing stakeholder  
**awareness** and **engagement**  
to foster change

Promoting **responsible use**  
to keep antimicrobials working

Strengthening **surveillance**  
and **research** to support  
evidence-based decisions



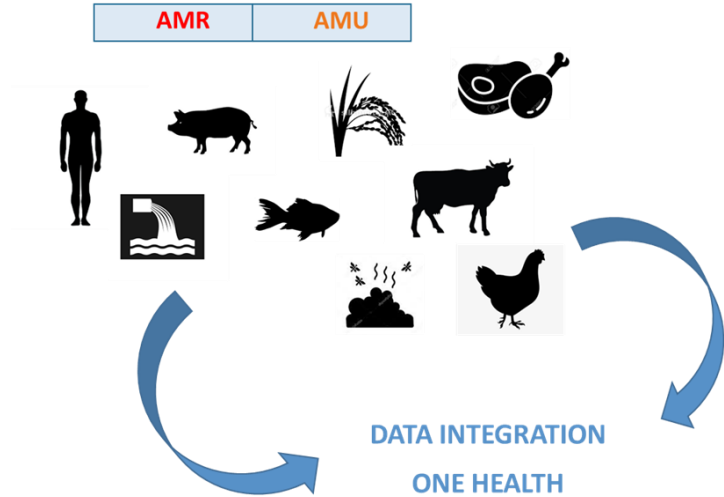
Enabling **good practices** to prevent  
infections and control the spread  
of resistant microbes



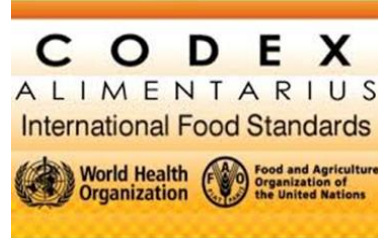
# Objective 2 - Strengthening surveillance and research



FAO Assessment Tool for Laboratories and AMR Surveillance Systems (FAO-ATLASS)



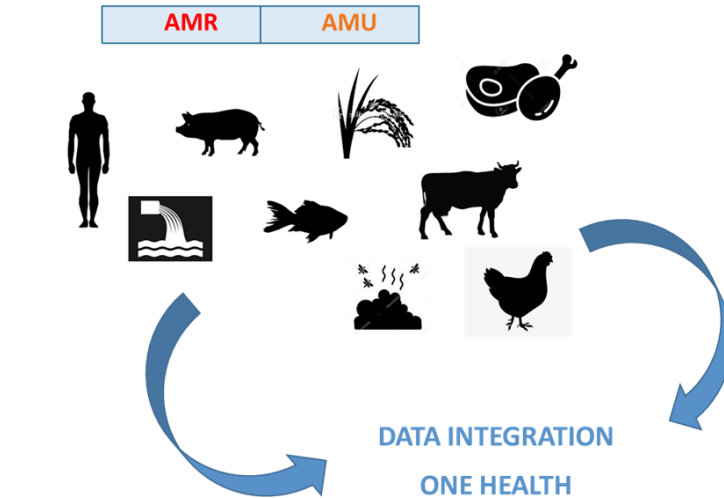
*Collaboration with partners is essential...*



## Objective 2 - Strengthening surveillance and research

### Key actions

- data services: development of InFARM system and contribution to TISSA
- Promotion and support to AMR information integration across sectors
- Continue laboratory and surveillance capacity building for harmonization



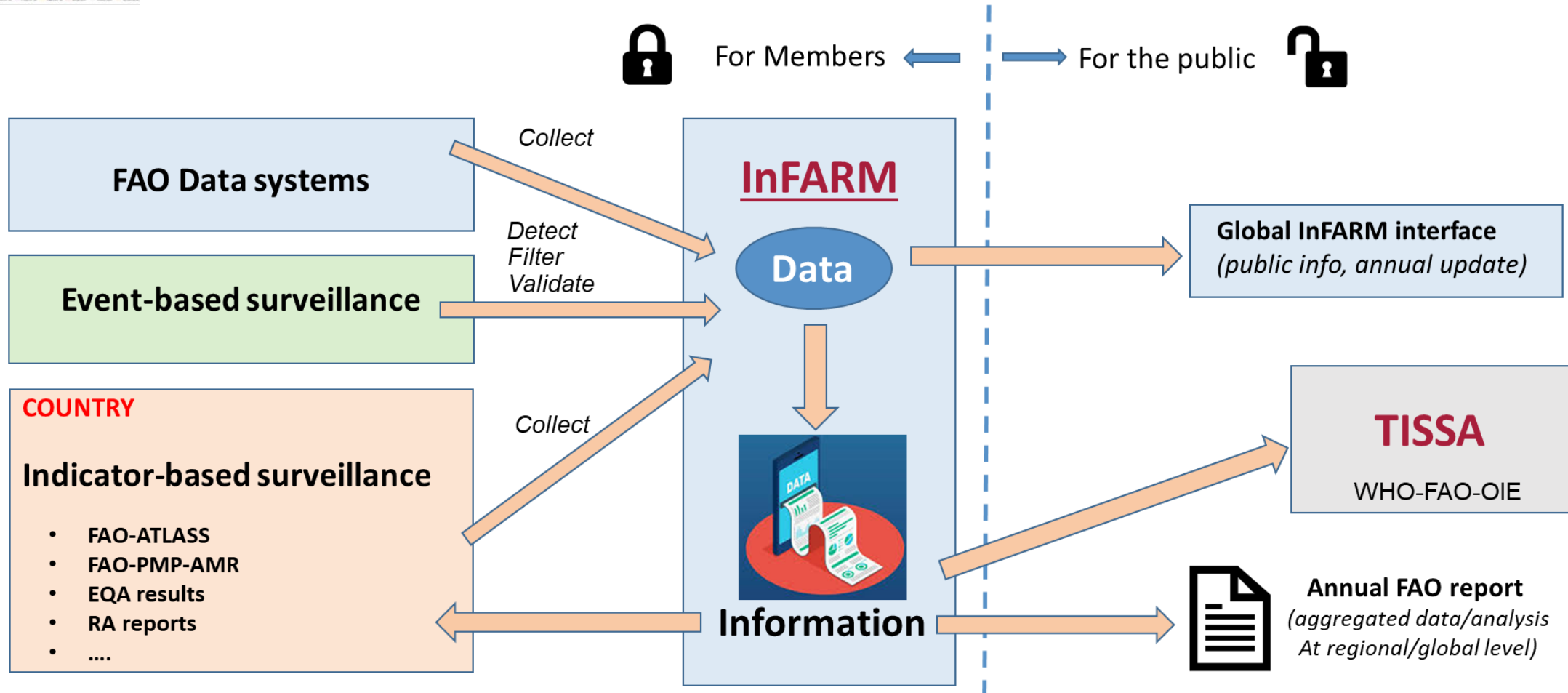
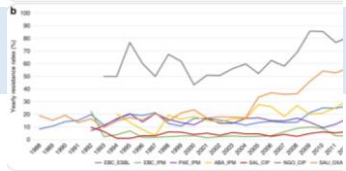
*Collaboration with partners is essential...*

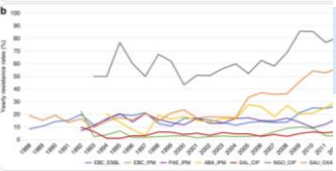




# FAO AMR data services (InFARM in development)

FAO's Work on AMR

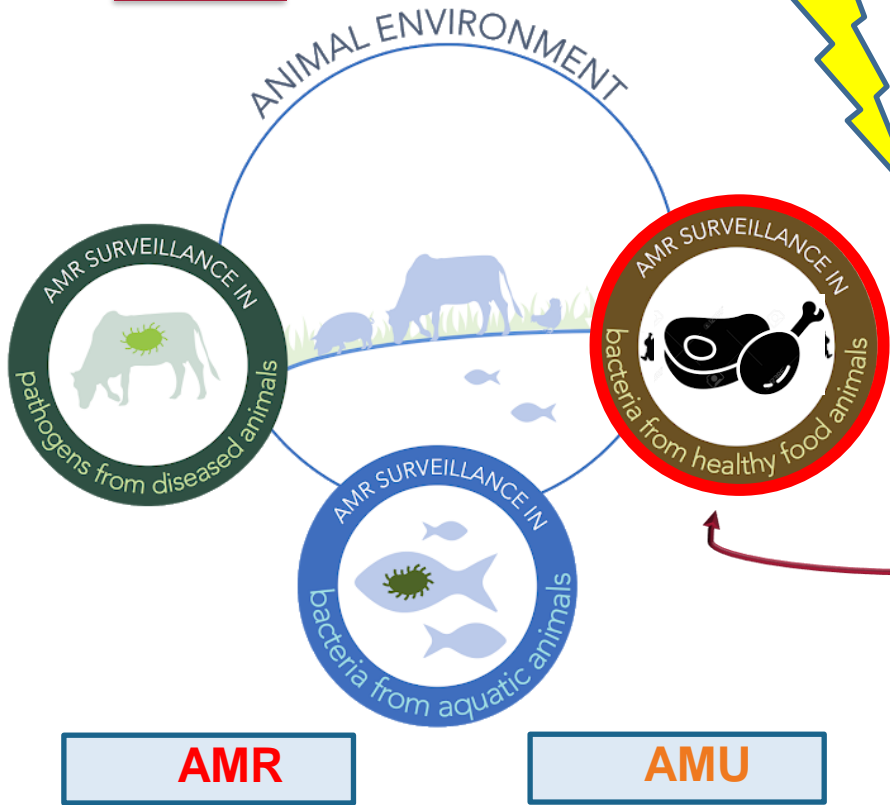




## FAO AMR data services (InFARM in development)

FAO's Work on AMR

**PRIORITIZATION AND COORDINATION IS KEY!**



Kick off with **AST** data for...



OVERVIEW				ANTIBIOTIC LIST		
COLUMN TITLE	DEFINITION/DESCRIPTION	DATA TYPE	MAX FIELD SIZE	EXAMPLE	Code	Antibiotic name
AMR	Antimicrobial resistance	Boolean	1			Amoxicillin
AMU	Antimicrobial usage	Quantity	10			Amoxicillin
CAZ	Carbapenems	Boolean	1			Carbapenems
COL	Colistin	Boolean	1			Colistin
CP	Chloramphenicol	Boolean	1			Chloramphenicol
CLM	Clarithromycin	Boolean	1			Clarithromycin
ERY	Erythromycin	Boolean	1			Erythromycin
GEN	Gentamicin	Boolean	1			Gentamicin
LMC	Linezolid	Boolean	1			Linezolid
MIN	Micronides	Boolean	1			Micronides
IMP	Imipenem	Boolean	1			Imipenem
QDA	Quinolones	Boolean	1			Quinolones
SIS	Spectinomycin	Boolean	1			Spectinomycin
SMC	Streptomycin	Boolean	1			Streptomycin
TEC	Tetracycline	Boolean	1			Tetracycline
TIC	Tigecycline	Boolean	1			Tigecycline
TMP	Trimethoprim	Boolean	1			Trimethoprim
VAN	Vancomycin	Boolean	1			Vancomycin

Template harmonized AMR data collection healthy animals and food



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# Thank you

[www.fao.org/antimicrobial-resistance](http://www.fao.org/antimicrobial-resistance)

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Twitter [@FAOLivestock](https://twitter.com/FAOLivestock)