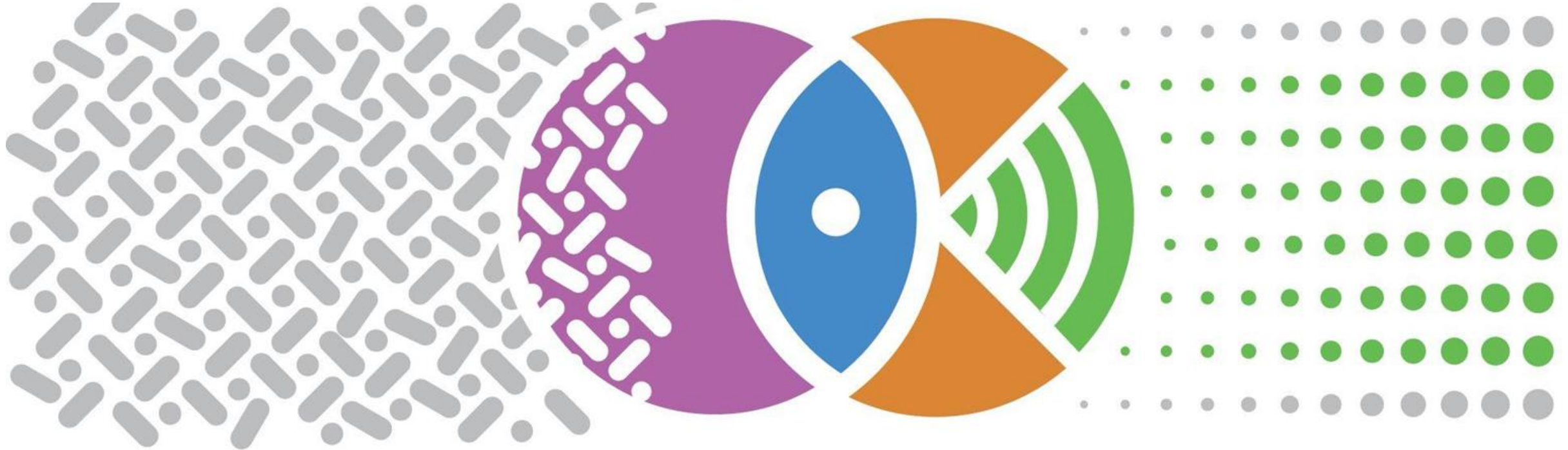




Food and Agriculture
Organization of the
United Nations

International FAO
Antimicrobial Resistance
Monitoring (InFARM) System



The International FAO Antimicrobial Resistance Monitoring System (InFARM) *Introduction and updates.*

Jutanat Srisamran and Agnes Agunos

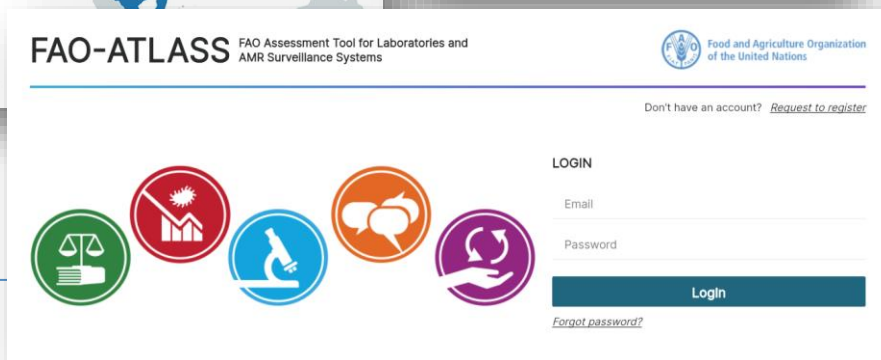
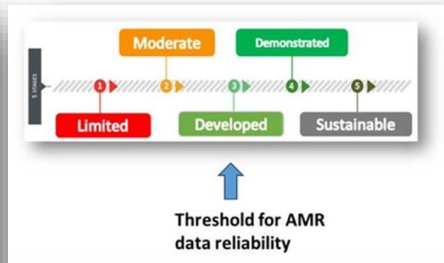
Credits: Alejandro Dorado Garcia, Junxia Song, Sarah Hill, Norma Sofisa Hurif, Aristeidis Tsachlaris





InFARM surveillance approach

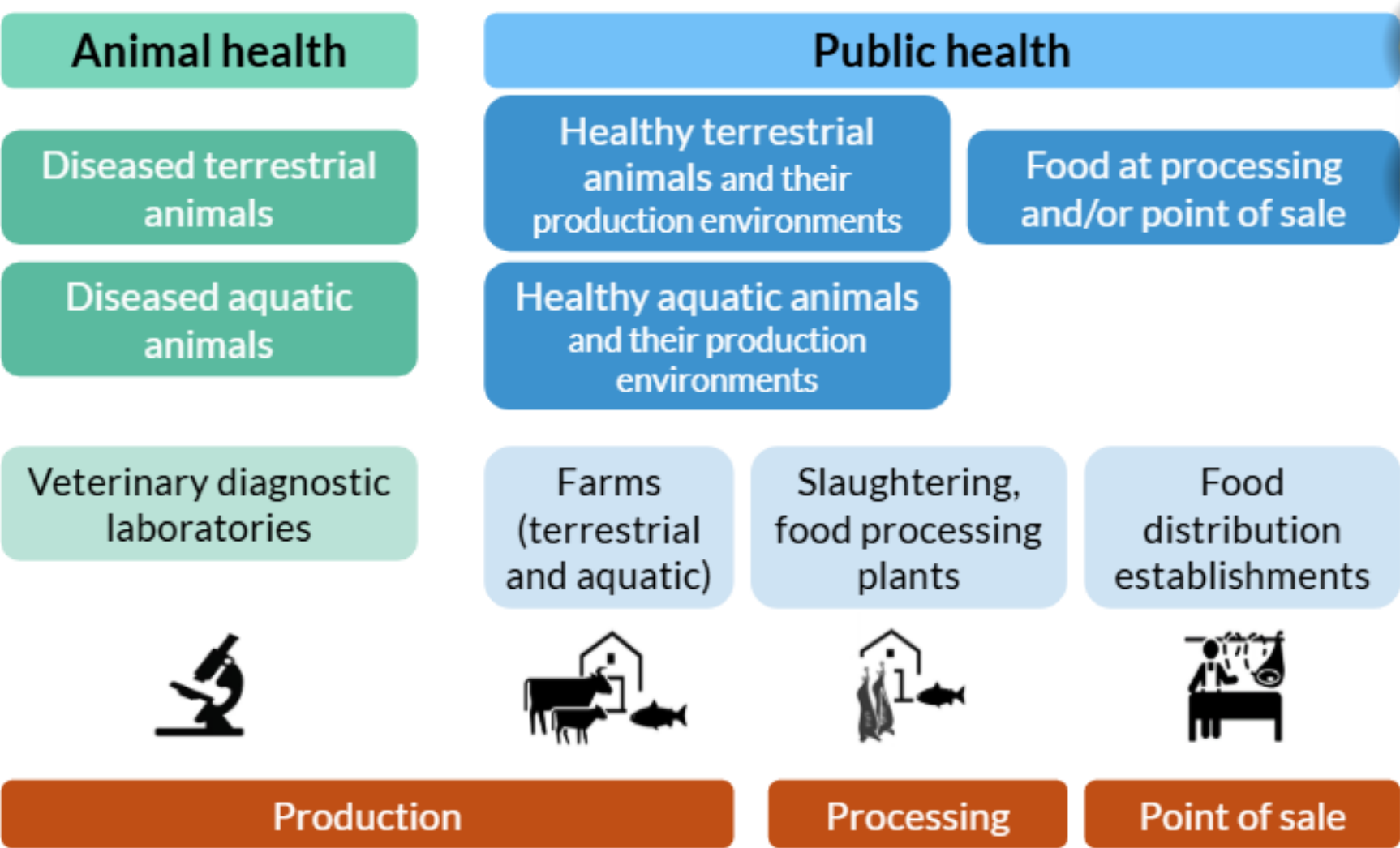
- Global **information system**
- Digital **IT platform + activities** to assist countries
- **Collecting, collating, analyzing, visualizing,** and **effectively utilizing** their AMR monitoring and surveillance data primarily from livestock, fisheries, and aquaculture, along with their associated food products
- Expanding to **AMU in plants** in 2025



Assessment tool for laboratories and AMR surveillance systems (**ATLASS**)

- Digital application under development (beta version expected in September 2025)
- FAO-ATLASS as a measurement of the **quality of AMR data** received in the InFARM system

InFARM surveillance approach (purposes and programmes)



InFARM surveillance early implementation and expansion phases (2023 – 2024)



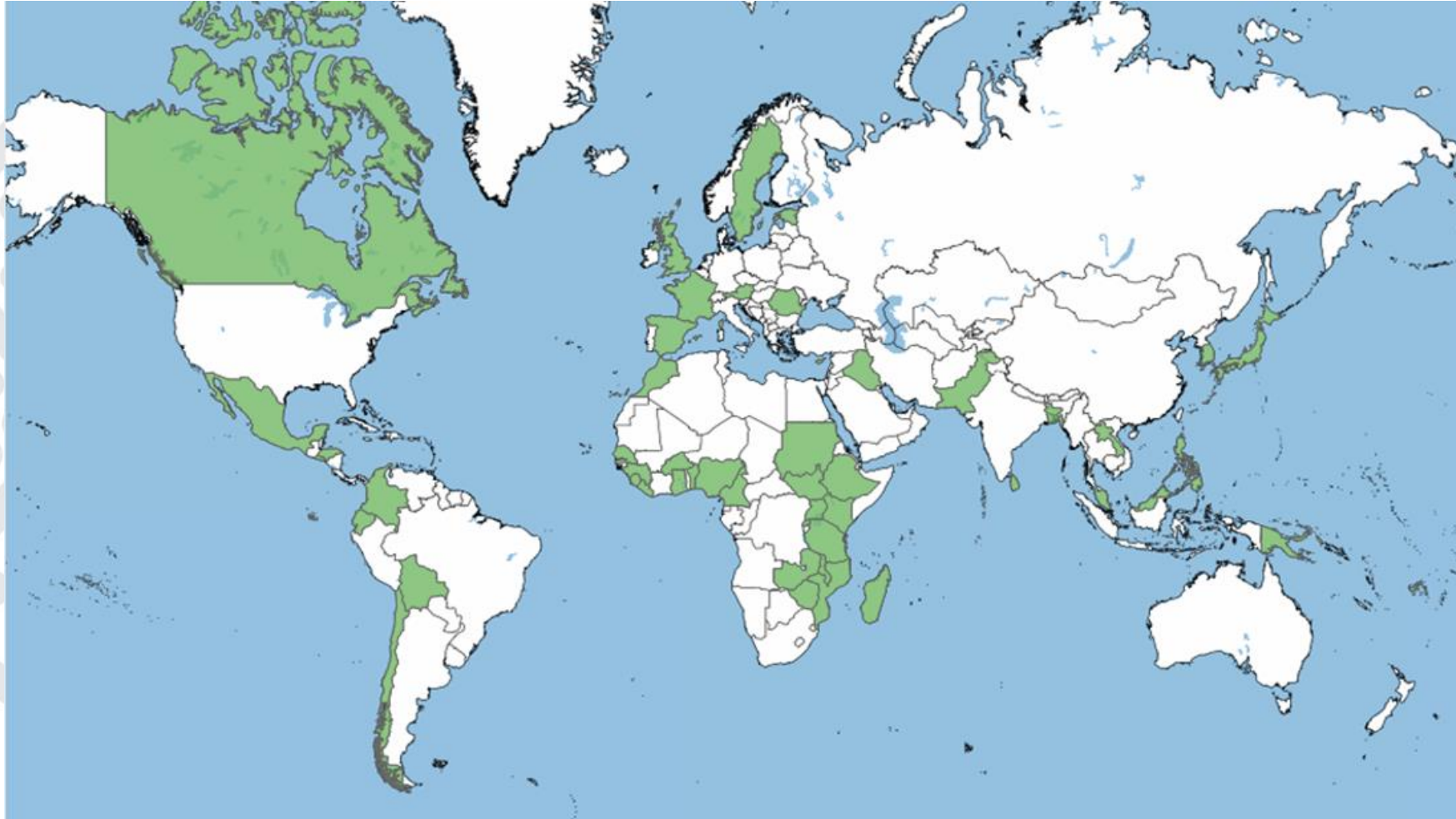
- Launch of the digital IT platform's first open call for data in 2024
- Regional trainings of InFARM focal points
- Data call 2024: **Over 50 countries enrolled**, 49 submitting questionnaire on implementation and 28 submitting AMR data from more than 500,000 bacterial isolates
- Ongoing: Second annual open call (June-Dec 2025), Compilation of first global baseline report (late 2025-early 2026)
- Next: expansion (2025-2027) and consolidation (2028-2030)



InFARM early implementation results (2024)

Participation

Figure. Map displaying countries enrolled in InFARM in 2024, n = 49 countries (28 submitting AMR data)

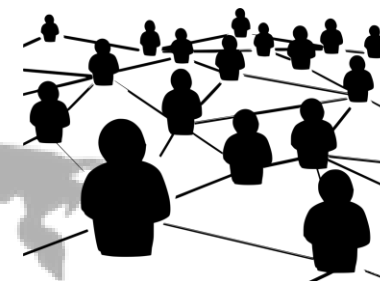


96 submissions of questionnaires (including the 6 different types of questionnaires: the 5 surveillance programmes, and another one for integration of programmes).

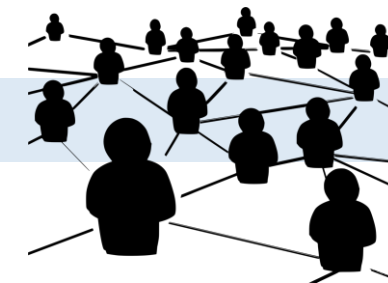
- Africa (22% of countries, 59% of submissions)
- **Asia (20% of countries, 14.6% of submissions)**
- Americas (16% of countries, 14.6% of submissions)
- Europe (12% of countries, 9.4% of submissions)
- Oceania (4.1% of countries, 2.1% of submissions).

InFARM Team Expansion and communities of InFARM focal points

- Regional training sessions, conducted across Latin America, Sub-Saharan Africa, and Asia-Pacific
- 167 participants from 46 countries, including national InFARM focal points, FAO personnel, FAO reference centers on AMR
 - Day 1: Global, regional and national perspectives
 - Day 2: AMR data Management
 - Day 3: InFARM Submission
 - Day 4: Utility of AMR data

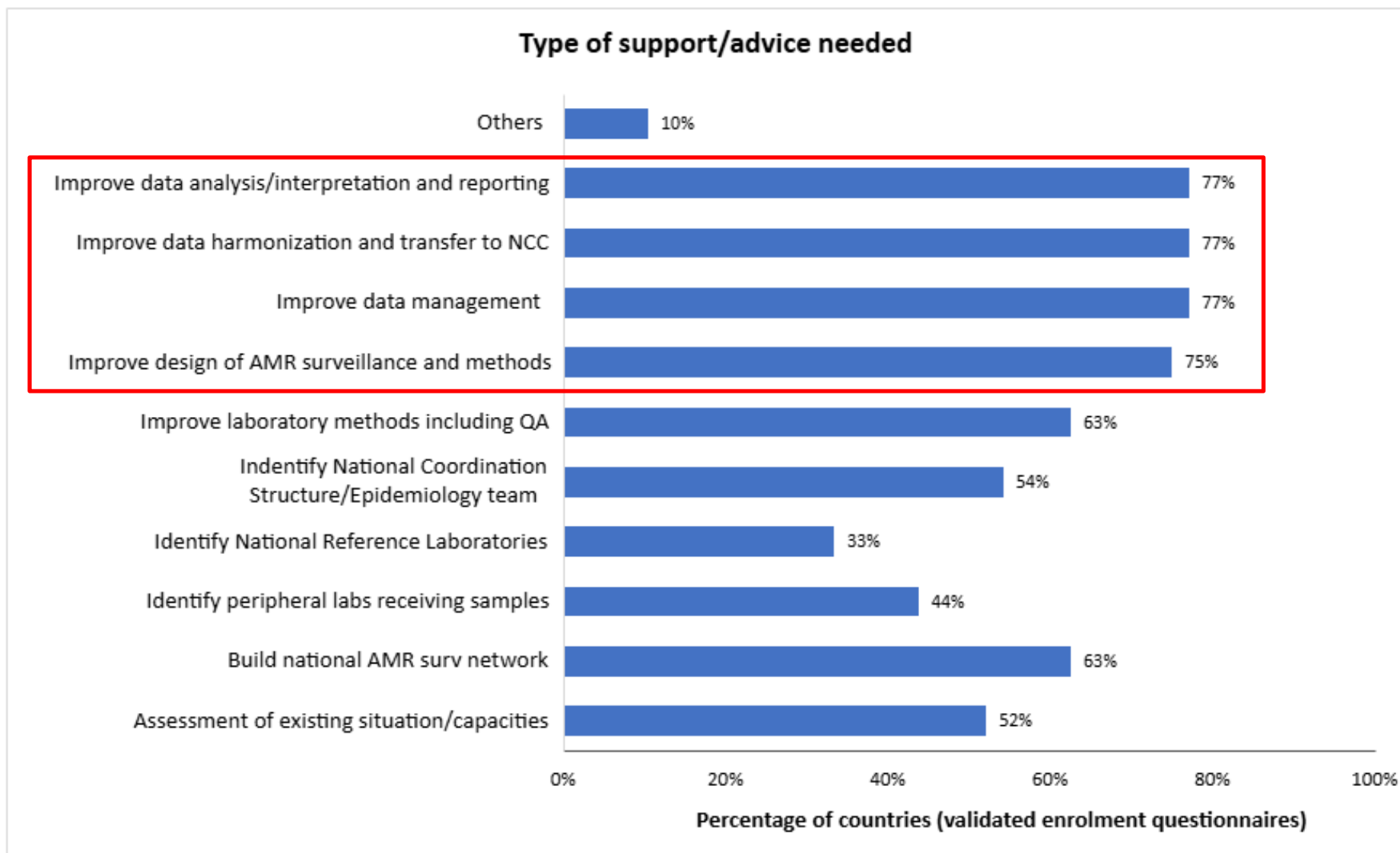


InFARM Team Expansion and communities of InFARM focal points

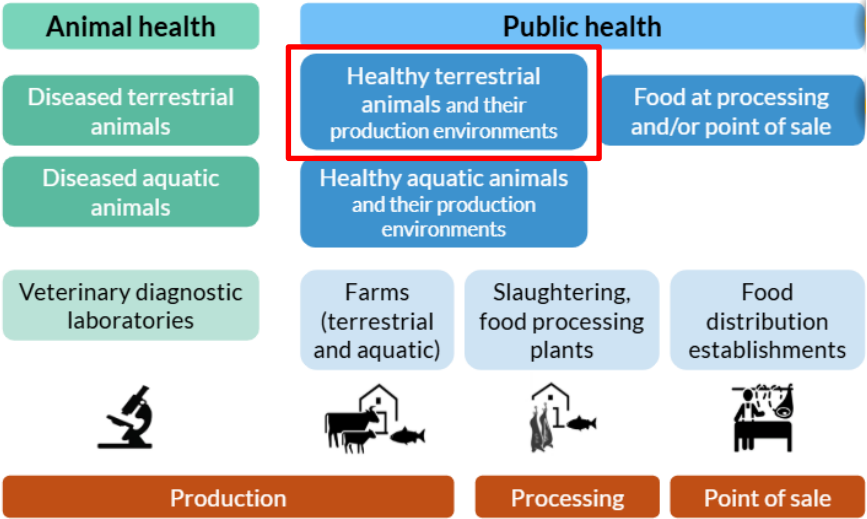


Regional training in RAP, July 2025, 50 participants from 15 countries (new modalities for implementation combining with the VLC)

InFARM early implementation results (2024) – analysis of surveillance questionnaires



InFARM early implementation results (2024) – analysis of surveillance questionnaires

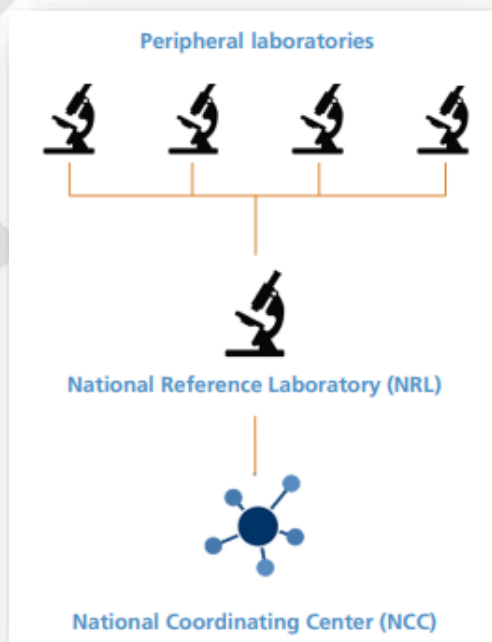


Surveillance questionnaire submissions across surveillance programmes as defined in the InFARM framework

Table 1: The number (percentage) of submissions by specific programme purpose and programme type	
Purpose	Surveillance programmes (n = 96)
Protecting public health: identifying and monitoring the zoonotic foodborne transmission of AMR from animals to humans throughout the food chain 58% (n = 57)	Healthy terrestrial animals 37.5% (n = 36)
	Healthy aquatic animal 7% (n = 7)
	Food at processing and/or sales 28.6% (n = 14)
Protecting animal health: identifying and monitoring AMR profiles and trends in bacterial pathogens isolated from sick animals suffering from bacterial infections 25.5% (n = 25)	Diseased terrestrial animals 19.8% (n = 19)
	Diseased aquatic animals 6% (n = 6)
Integration of programs 28.6% (n = 14)	Several or all 28.6% (n = 14)

InFARM early implementation results (2024) – analysis of surveillance questionnaires

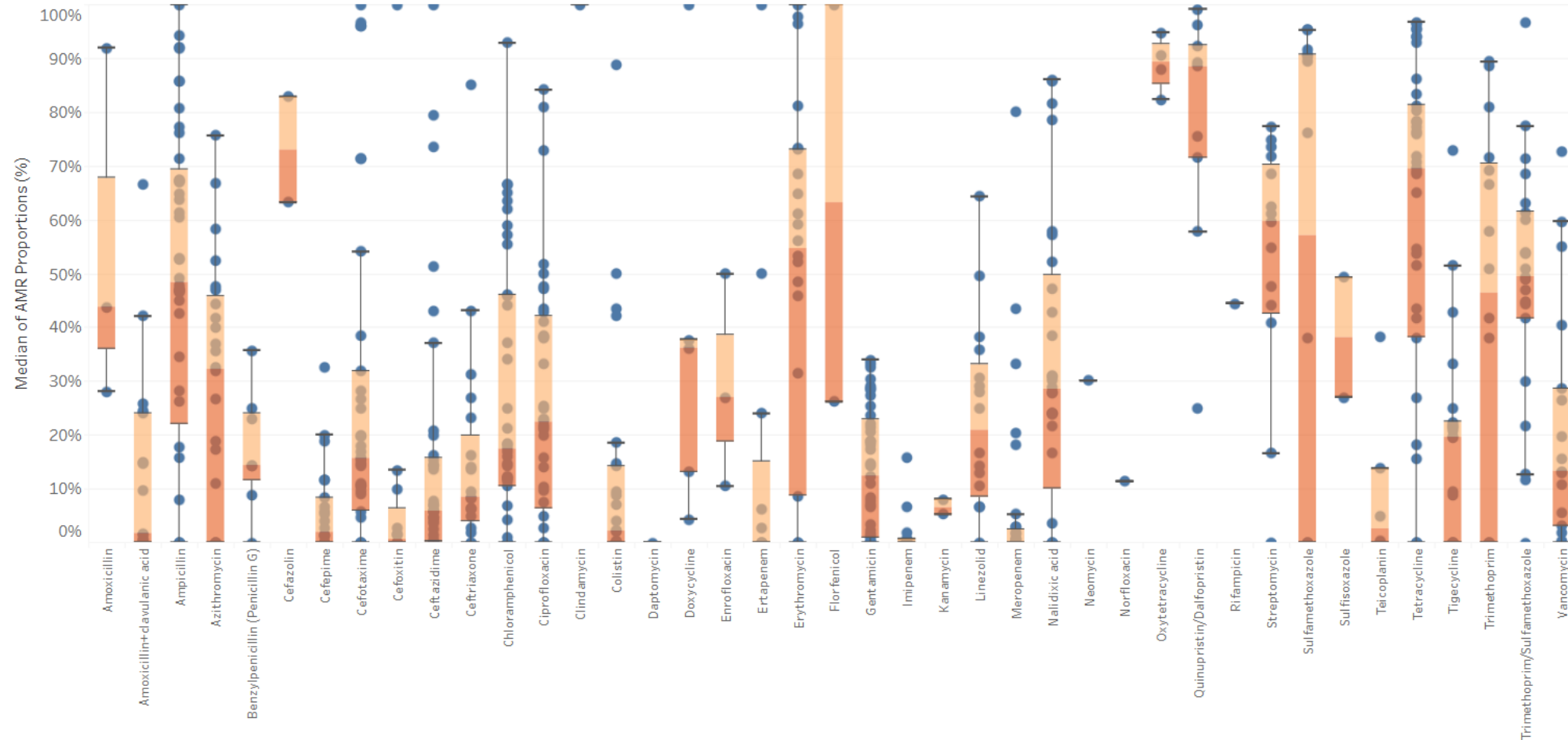
- Only 43% of countries reported having a surveillance program approved by the government with allocated funds and under implementation



- Less than half of the countries (49%) have all 3 core components of a surveillance network established (**Peripheral laboratories, NRL and NCC**)



Examples of boxplots with median of prevalence across countries



Raw data in healthy terrestrial animals

No comparability is possible without Filtering!!

InFARM 2025 activities

Facilitate participation in 2025 **annual open call** enhancing **trainings** on data management, submission, and dissemination of AMR information:

- Launch of **e-learning course** (VLC)
- **Training** of focal points (regional trainings and national facilitation workshops)
- Leveraging **existing DM initiatives** with implementing partners (LoA WHONET)

Call for data 2025
1 July – 1 December

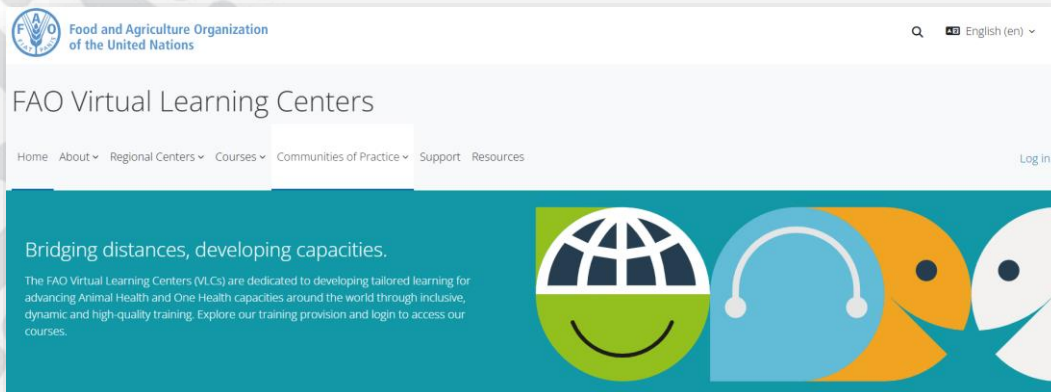


Reliable evidence for
action against AMR

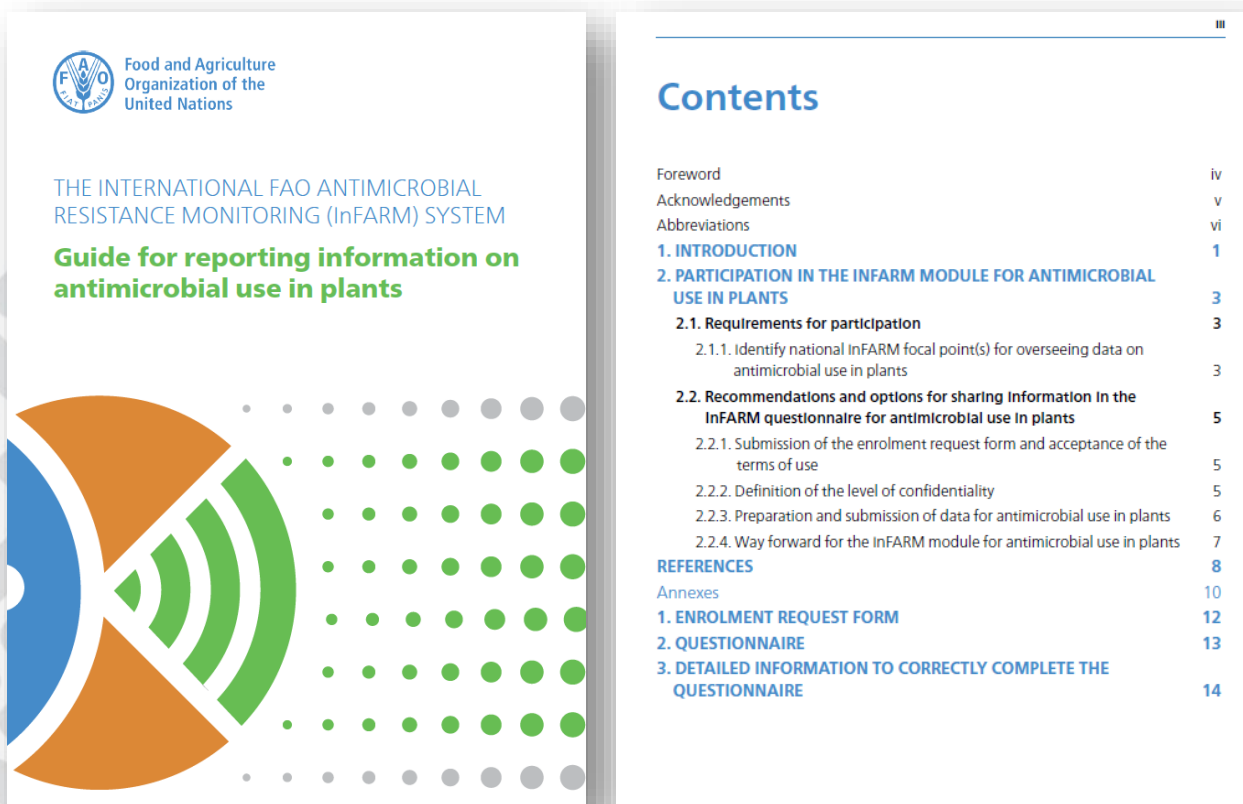
VLC courses 1 and 2

Training of focal points and
open consultation

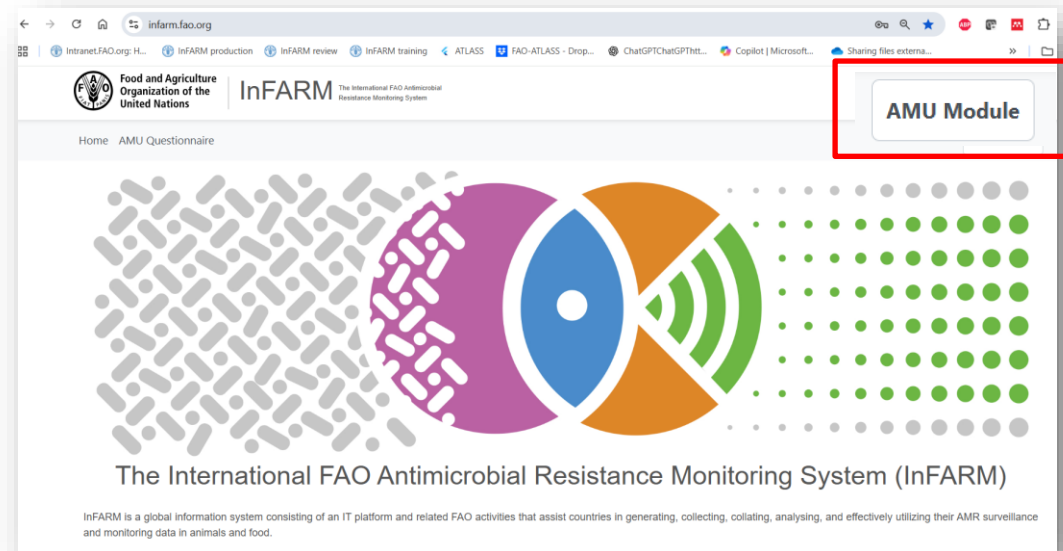
- Strengthen technical capacity for data management, submission and dissemination of information
- Review and improve InFARM early implementation processes



Expansion of InFARM system to collect AMU in plant production and protection



Publication of the InFARM Guide for reporting information on antimicrobial use in plants



Open call for data on AMU in plants
Expected October-December 2025 reaching out primarily IPPC focal points

Benefits for countries participating in InFARM

- Get access to a safe space to **store AMR data** across multiple surveillance programs and at customizable levels of confidentiality.
- Get access to **interactive data visualizations** with easy export options for various uses, such as official reports, presentations, and publications.
- Country **benchmarking** to contextualize national AMR prevalence and trends.
- Get access to a **centralized repository of documents** to provide context to country AMR data, including national surveillance plans, protocols, and reports from the application of FAO assessment tools.
- Improve **coordination in AMR data** generation, collection, collation, and analysis.
- Contribute to **global One Health AMR surveillance efforts**.

AMR data in Asia and the Pacific region – the need for more data

- To assess the implementation of AMR surveillance programmes in animals and food.
- To determine current regional AMR levels in major food producing animals
- To Support One Health Integrated Surveillance in the region





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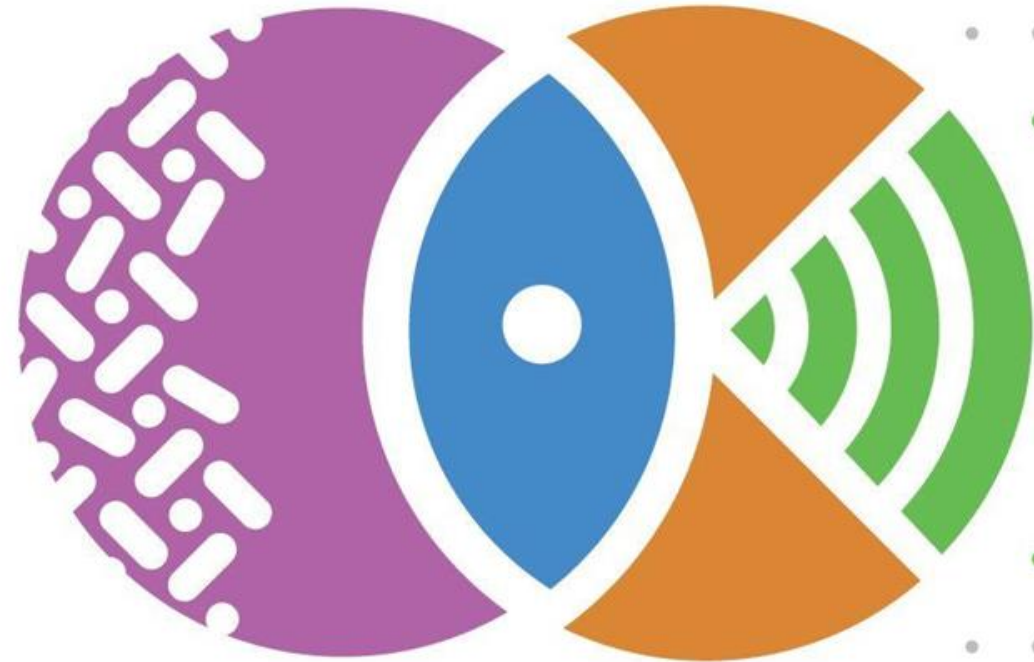
Ministry of Food and
Drug Safety
Republic of Korea



The
Fleming Fund

International FAO
Antimicrobial Resistance
Monitoring (InFARM) System

Thank You



Governance



Data collection and analysis
(epidemiology unit)



Data production network
(laboratories)



Communication



Sustainability