



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

# Tripartite Support for Tackling Antimicrobial Resistance

*on behalf of the Tripartite: Codex TFAMR, 9 November 2019*

# Tripartite



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

## Implementing of

- Global action plan on AMR (2015)
- UN Declaration on AMR (2016)

## Renewed MoU (2018)



# United Nations Interagency Coordination Group

- Mandated by SG in 2017 to provide guidance on approaches to **sustained global action on AMR**
- Expertise from human, animal, and plant health, food, feed, trade, development, and environmental sectors



# IACG | Interagency Coordination Group on Antimicrobial Resistance



The IACG submitted its report to the UNSG on April 29, 2019.



# ONE HEALTH RESPONSE TO ANTIMICROBIAL RESISTANCE



HUMANS



FOOD & FEED



PLANTS & CROPS



ENVIRONMENT



TERRESTRIAL & AQUATIC ANIMALS

Antimicrobial resistance is a global crisis. There is no time to wait. A sustained One Health response with a shared vision and goals is essential to tackle antimicrobial resistance and achieve the Sustainable Development Goals.

## INTERAGENCY COORDINATION GROUP ON ANTIMICROBIAL RESISTANCE RECOMMENDATIONS

ACCELERATE  
PROGRESS  
IN COUNTRIES

INNOVATE TO SECURE  
THE FUTURE

COLLABORATE FOR  
MORE EFFECTIVE  
ACTION

INVEST FOR A  
SUSTAINABLE  
RESPONSE

STRENGTHEN  
ACCOUNTABILITY &  
GLOBAL GOVERNANCE

## SUSTAINABLE DEVELOPMENT GOALS





# Member States' Commitment



RESOLUTION No. 14

OIE's Engagement in the One Health Global Effort to Control Antimicrobial Resistance

CONSIDERING

1. That antimicrobial resistance (AMR) is globally recognised as a growing political concern with serious social, economic, human health and animal health repercussions, as demonstrated by the United Nations (UN) General Assembly Resolution A-71/3 adopted in 2016,
2. The Second OIE Global Conference on antimicrobial resistance and prudent use of antimicrobial agents, putting standards into practice, organised in October 2018 in Marrakesh, Morocco, that confirmed commitment to supporting global strategies and initiatives developed under the leadership of the Tripartite (FAO, OIE, WHO) and recommended to further strengthen international collaboration and coordination including with the World Bank, the Organisation for Economic Co-operation and Development and other related institutions to build a stronger economic case for sustainable investment,
3. The ongoing AMR activities in the framework of the Tripartite, following the Memorandum of Understanding signed in 2018, and its joint workplan to support countries in implementing National Action Plans in support of the Global Action Plan on AMR,
4. The Monitoring and Evaluation framework developed by the Tripartite to measure country progress in the implementation of the Global Action Plan using a harmonised approach,
5. The AMR Multi-Partner Trust Fund "Combating the rising global threat of AMR through a One Health Approach" on the verge of being established by the Tripartite to enable joint resource mobilisation for the implementation of the Tripartite workplans on AMR,
6. The Ad hoc Inter-agency Coordination Group on Antimicrobial Resistance (IACG) report, provided to the United Nations Secretary General in April 2019 after public consultation, and particularly its recommendations regarding global leadership and coordination on AMR, and calling on Member States to effectively address AMR by developing and implementing multisectoral One Health National Action Plans,
7. The upcoming UN Secretary General report prepared for the UN General Assembly in September 2019 in response to the Resolution A-71/3 to provide an update on progress made by Member States and the Tripartite on the implementation of the Political Declaration and recommendations emanating from the Ad-hoc Inter-Agency Coordination Group on Antimicrobial Resistance,
8. The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials developed following the adoption of Resolution No. 36 at the 84th General Session in May 2016 to address AMR and the harmonisation of regulatory approaches to AMR and the harmonisation of regulatory approaches to AMR,
9. The ongoing AMR activities in the framework of the Tripartite, following the Memorandum of Understanding signed in 2018, and its joint workplan to support countries in implementing National Action Plans in support of the Global Action Plan on AMR,

**May 2019**

87 GS/FR – PARIS, May 2019

SEVENTY-SECOND WORLD HEALTH ASSEMBLY

WHA72.5

Agenda item 11.8

28 May 2019

## Antimicrobial resistance

The Seventy-second World Health Assembly,

Having considered the report by the Director-General on follow-up to the high-level meetings of the United Nations General Assembly on health-related issues: antimicrobial resistance;<sup>1</sup>

Recalling resolution 71/3 (2016), the political declaration of the high-level meeting of the General Assembly on antimicrobial resistance, and acknowledging the establishment of the Interagency Coordination Group on Antimicrobial Resistance to provide practical guidance and recommendations for necessary approaches to ensure sustained and effective global action to address antimicrobial resistance;

Recognizing the importance of addressing growing antimicrobial resistance to contribute to the achievement of the 2030 Agenda for Sustainable Development;

Reiterating the need to address antimicrobial resistance through a coordinated, multisectoral, One Health approach;

Recalling resolution WHA68.7 (2015) in which the Health Assembly adopted the global action plan on antimicrobial resistance, which lays out five strategic objectives (improve awareness and understanding of antimicrobial resistance; strengthen knowledge through surveillance and research; reduce the incidence of infection; optimize the use of antimicrobial agents; and develop the economic case for sustainable investment), and noting the progress made in establishing the Global Antimicrobial Resistance Surveillance System (GLASS);

Recognizing the pressing need for investing in high-quality research and development, including basic research for antimicrobials, diagnostic technologies, vaccines and alternative preventive measures across sectors, and for ensuring adequate access to those in need of quality, safe, efficacious and affordable existing and new antimicrobials, diagnostic technologies and vaccines, while promoting effective stewardship;

Acknowledging the need to continue to improve the continuing effectiveness of antimicrobials, especially in the context of tuberculosis, and malaria;

Acknowledging the need to continue to improve the continuing effectiveness of antimicrobials, especially in the context of tuberculosis, and malaria;

**May 2019**

<sup>1</sup> Document A72/18.

C 2019/REP

C1

## Appendix C

### Resolution 6/2019

#### Antimicrobial Resistance

THE CONFERENCE,

Recognizing the importance of addressing the growing global threat of antimicrobial resistance (AMR) in all countries through a coordinated, multi-sectoral, One Health approach in the context of the 2030 Agenda for Sustainable Development;

Recognizing that access to effective antimicrobials and their appropriate and prudent use has a role in productive and sustainable agriculture and aquaculture – and that their misuse contributes to the rising rates of antimicrobial resistance which negatively impacts the advances made in medicine, public health, veterinary care, food and agriculture production systems, and food safety;

Further recognizing the importance of basing policy and practices on sound scientific evidence, and risk analysis principles;

Reaffirming the FAO resolution 4/2015 on Antimicrobial Resistance, and noting the World Organisation for Animal Health (OIE) resolution No. 36 (2016) on combating antimicrobial resistance and the United Nations Environment Programme (UNEP) resolution UNEP/EA.3/Res.4 (2018) on environment and health;

Recalling the Political Declaration of the High-Level Meeting of the UN General Assembly on Antimicrobial Resistance in 2016, (Resolution A/RES/71/3) and the establishment of the ad-hoc Interagency Coordination Group on Antimicrobial Resistance (IACG);

Noting the adoption by the 68<sup>th</sup> World Health Assembly of the Global Action Plan on Antimicrobial Resistance (through WHA 68.7), into which FAO and OIE provided substantial technical inputs and guidance, and noting the reports of the Executive Board of WHO at its 144<sup>th</sup> Session (2019);

Recognizing the important role of the Tripartite in coordinating and enhancing the global response to the antimicrobial resistance threat and its continuing effort to further integrate environmental aspects through close collaboration with UNEP;

Noting the report of the IACG on AMR to the UN Secretary General, and the need for continued joint action of United Nations Agencies, Member States and other relevant stakeholders, and also the need for further investment to mitigate the AMR threats to human, animal and plant health, food safety and sustainable use of natural resources;

Reaffirming the need for a coherent, comprehensive, integrated and balanced approach at global, regional and national levels via a "One Health" approach, involving relevant actors in the human, animal, plant health, agriculture and aquaculture sectors, environment and food safety;

Noting the adoption by the 72<sup>nd</sup> World Health Assembly of a resolution on antimicrobial resistance, the 87<sup>th</sup> General Session of the United Nations Environment Programme (UNEP) [OIE];

THE CONFERENCE,

**June 2019**

1. Support the Tripartite's collaboration with UNEP, and other relevant stakeholders, to address antimicrobial resistance in the context of food and agriculture production systems, and food safety;

<sup>1</sup> <https://www.who.int/antimicrobial-resistance-publications/AMR-Tripartite-Workplan-updated-08-April-2019.pdf?ua=1>

<sup>2</sup> <http://mptf.unep.org/>

## Tripartite action at the highest levels

- Meeting of the DSG and Directors General on the implementation of IACG recommendations
- Senior leadership (DDG/ADG/Directors) of the Tripartite meetings on:
  - TOR One Health Global Leaders Group on Antimicrobial Resistance
  - Proposed next steps for the Independent Panel on Evidence for Action against Antimicrobial Resistance





# Establishment of the Joint Tripartite Secretariat

United Nations

A/73/869



**General Assembly**

Distr.: General  
10 May 2019

Original: English

**Seventy-third session**

Agenda item 129

**Global health and foreign policy**

**Follow-up to the political declaration of the high-level meeting of the General Assembly on antimicrobial resistance**

**Report of the Secretary-General**





# Tripartite Joint Secretariat on Antimicrobial Resistance

**Purpose:** Lead and coordinate the global response to AMR in close collaboration with the UN system and other organizations. The Tripartite Joint Secretariat consolidates cooperation between WHO, FAO and OIE, drawing on their core mandates and comparative advantages to address needs of the global response across the One Health spectrum.

## Hosting arrangement

Hosted by WHO with a critical mass of staff, along with dedicated liaison officers working in FAO and OIE

## Governance arrangement

- The Executive Committee
- The Senior Management Group
- The Tripartite Joint Secretariat team

## Key functions

- Global promotion, advocacy and political engagement
- Support global governance structures on AMR
- Coordinate interagency engagement and partnership
- Coordinate and monitor Tripartite workplans on AMR
- Map gaps and opportunities
- Support the functioning of the AMR Multi-Partner Trust Fund

# Tripartite Activities

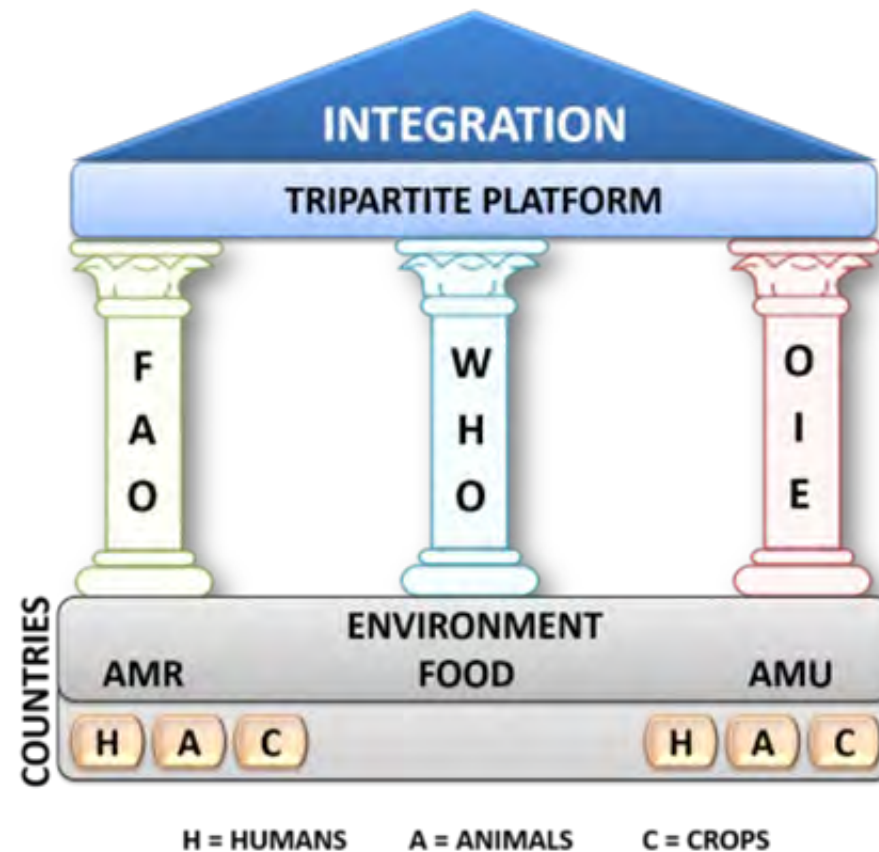
# Tripartite Workplan





# Tripartite Integrated Surveillance System (TISSA)

- Platform for publication of data collected from different sectors by global and regional surveillance systems.
- Enable coordinated data-sharing and harmonized analysis.



# Tripartite Advisory Group on Intersectoral Support on AMR (T-AGISAR)

Tripartite follow-up to WHO AGISAR

“...provide technical guidance and input to the Tripartite activities at human-animal-plant-environment interface, aimed at the containment of antimicrobial resistance.”



# Global Action Plan (GAP) M&E Framework

## KEY CHARACTERISTICS OF THE GAP M&E FRAMEWORK

### ONE HEALTH



- Co-developed by WHO, OIE, FAO
- Includes approaches and indicators across human and animal health, plant and food production, and environment

### PRACTICAL



- Cost-effective and built on existing systems as far as possible
- Most countries should be able to report on indicators within five years

### COLLABORATIVE



- A collaboration of the tripartite and countries
- Developed in consultation with diverse partners and experts

### BASED ON GAP



- Built on a results chain directly related to specific GAP goal and objectives
- Sensitive to GAP timelines

### DYNAMIC



- New indicators will be added as knowledge develops
- Methods will evolve to reflect lessons in best practice

### FLEXIBLE



- Open to 'proxy indicators'
- Initial focus on progress indicators while systems are under development

### MULTI-LEVEL

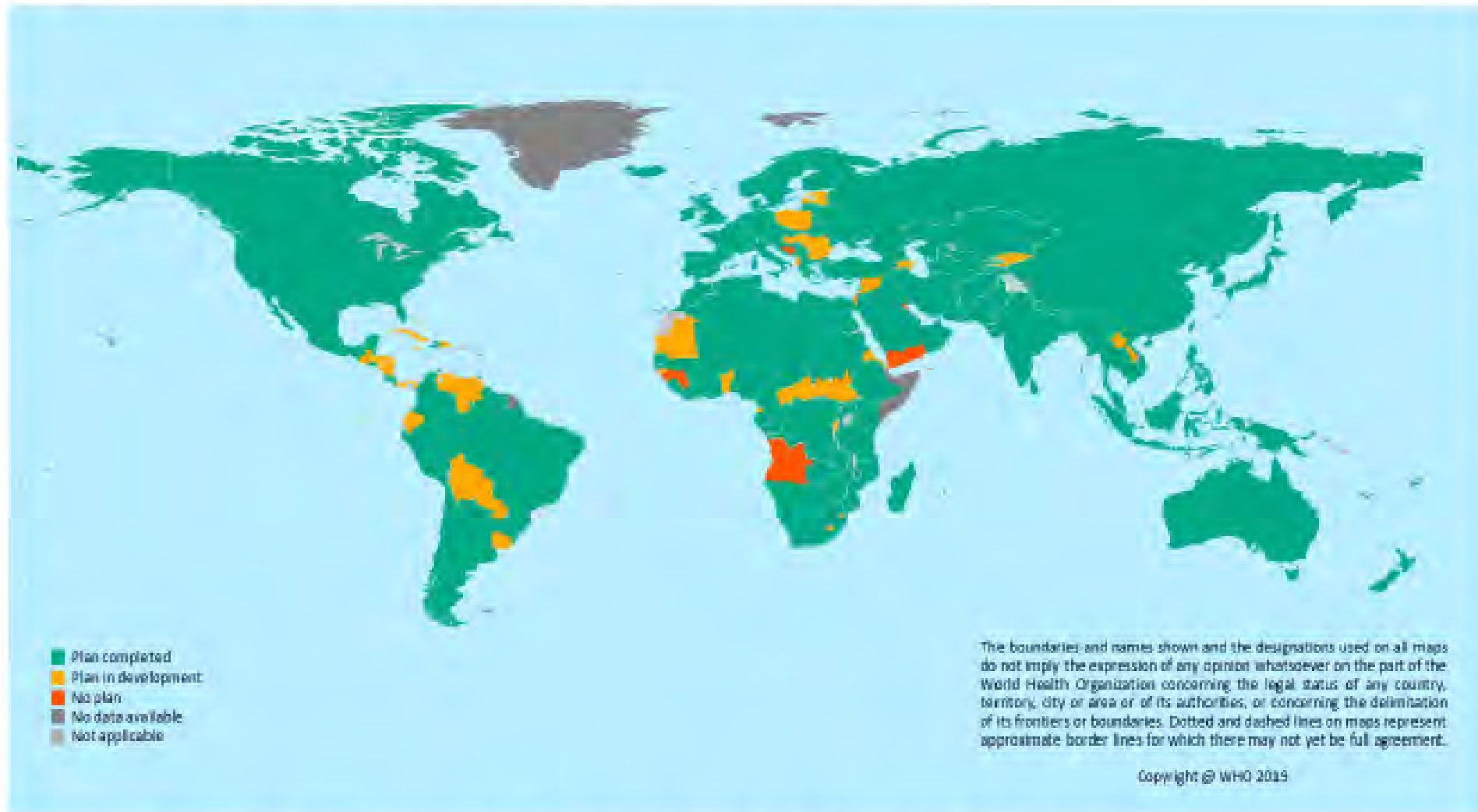


- Joint and sector-specific activities
- Includes M&E activities at national, regional and global levels



# Tripartite Annual Self-Assessment Survey

## Progress made in the development of national action plans



*Source:* Reporting by WHO regional offices and on the basis of the 2018/19 country self-assessment survey on antimicrobial resistance of the Tripartite Organizations.

# Tripartite Coordination

- Tripartite work with regional bodies to promote One Health Approach to AMR (e.g):
  - South African Development community of subregional AMR strategy
  - African Centres for Disease Control and Prevention of the African Union of Framework for AMR for 2018-2023
  - Association of Southeast Asian leaders declaration on AMR



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ASSOCIATION  
OF SOUTHEAST  
ASIAN NATIONS

# Challenges

- Country-specific economic analyses related to AMR are needed to maximize impact
- Coordinated research on new antimicrobials (and safe and effective alternatives)
- Research in plant and animal sectors less well-resourced
- Resource constraints limit implementation





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Oie  
WORLD ORGANISATION  
FOR ANIMAL HEALTH

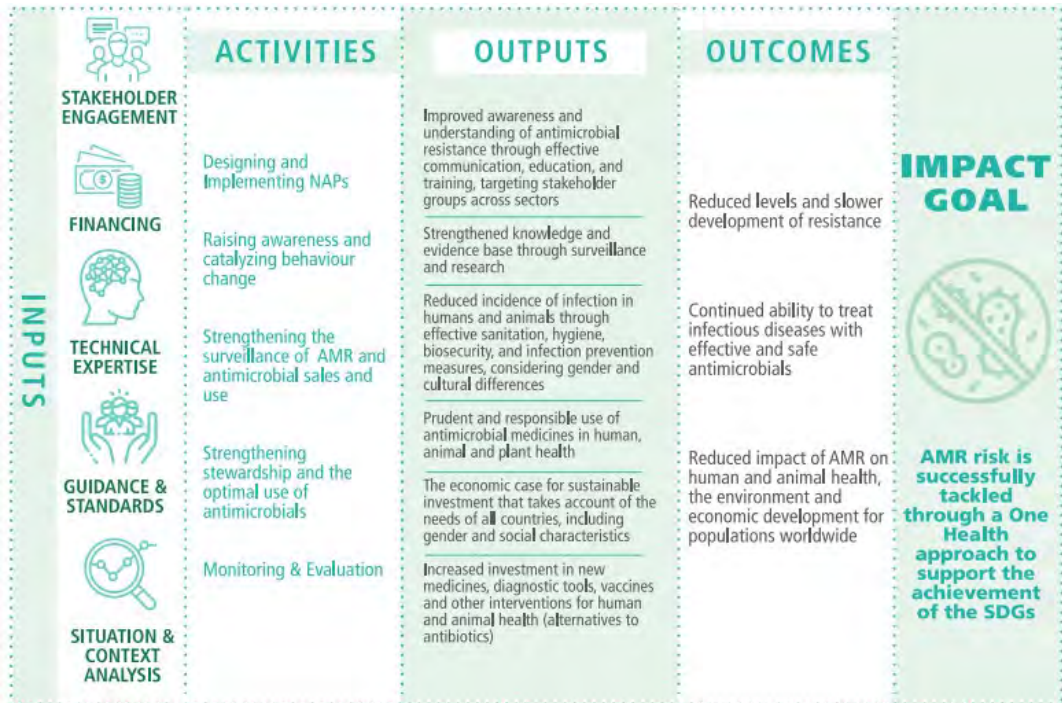
World Health  
Organization



©World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO) and World Organisation for Animal Health (OIE), 2018

## Antimicrobial Resistance Multi-Partner Trust Fund

Combatting the rising global threat of AMR through a One Health Approach





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Organization of the  
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# FAO Support for the Application of Codex requirements on AMR



# Organizational Structure

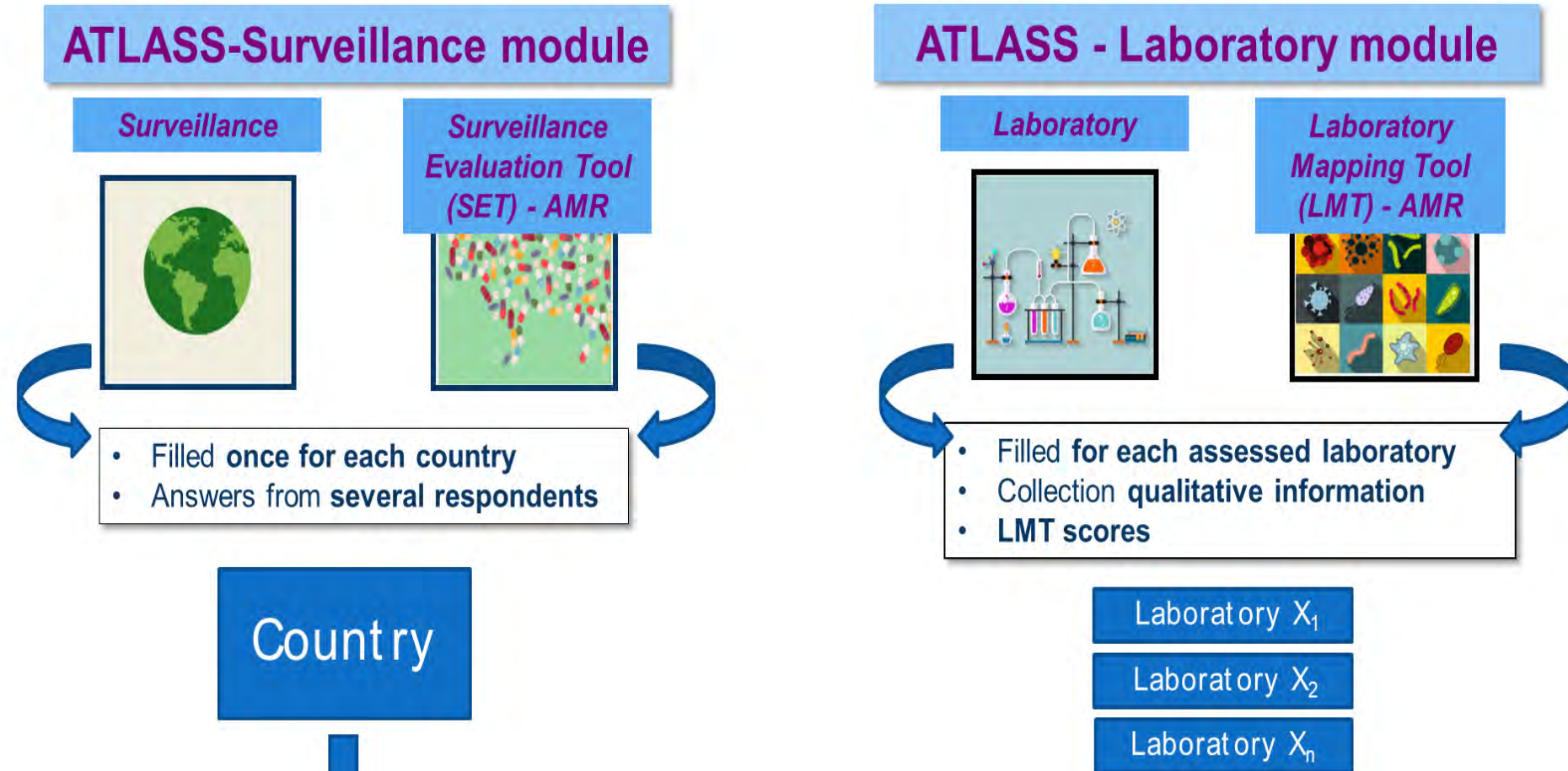




# Assessment Tool for Laboratories and AMR Surveillance Systems (ATLASS)

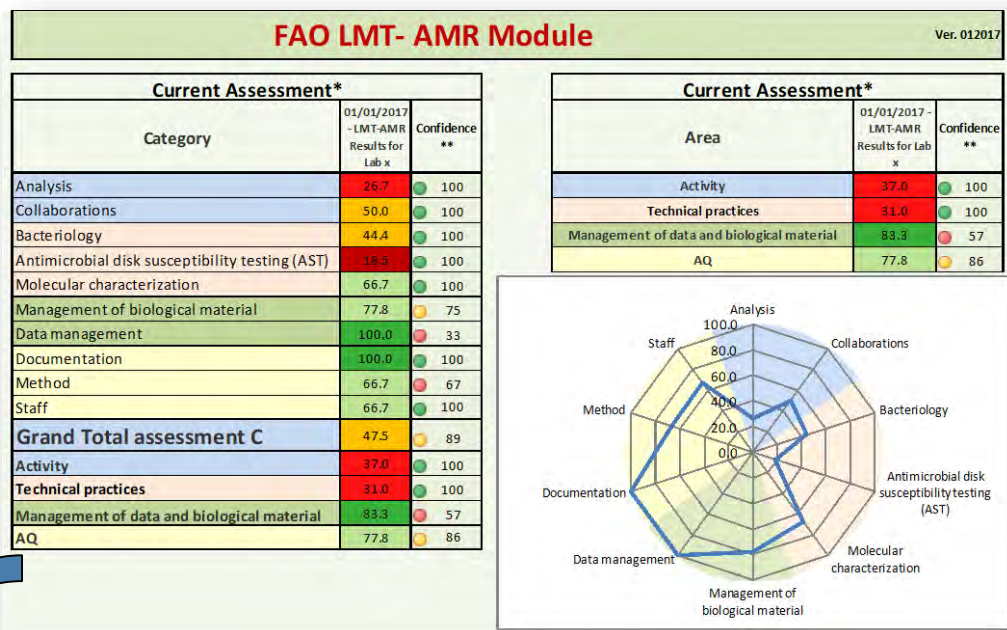
- **Map** national AMR surveillance system, including laboratory networks and analytical capacities.
- **Provide** evidence base for action and advocacy for strengthened AMR surveillance systems, including coordination between actors and capacity building efforts for the laboratory network.
- **Monitor** AMR surveillance capacities under the vet domain (global compilation of ATLASS data) at national/regional and global level
- **Improve the linkage** with AMR surveillance in public health (GLASS)

# FAO-ATLASS: Structure



# LMT-AMR

## Individual Lab Assessment



Visualize areas where one lab could strengthen its capacities for AMR testing.

Progress can be measured yearly.

Category	N1*	G1	A1	L1*	E1	B1	C1	F1	D1	J1	Regional average
Analysis	100	89	78	78	78	67	67	78	78	56	77
Collaborations	78	78	89	78	44	44	67	22	0	22	52
Bacteriology	100	89	100	100	56	89	78	56	44	22	73
Antimicrobial disk susceptibility testing (AST)	100	100	100	100	100	67	67	67	100	33	83
Molecular characterization	54	54	75	58	48	63	33	21	17	0	42
Management of biological material	78	67	53	61	60	58	28	33	22	17	48
Data management	92	67	50	67	48	42	42	33	17	19	48
Documentation	79	88	95	63	56	79	79	50	33	24	65
Method	67	89	60	72	87	44	61	25	39	17	56
Staff	59	59	63	59	60	59	26	7	22	0	42
<b>Grand Total assessment C</b>	<b>73</b>	<b>72</b>	<b>70</b>	<b>68</b>	<b>63</b>	<b>61</b>	<b>48</b>	<b>34</b>	<b>34</b>	<b>23</b>	<b>55</b>

Visualize areas where countries could strengthen their laboratory capacities for AMR testing.

Progress can be measured yearly.

# Progress

- 28 countries
- ~ 100 Laboratories
  - public, private and
  - university/research
- Available in English, French, Spanish and Russian



*(Map last update – 15 November 2019)*





CODE OF PRACTICE ON GOOD ANIMAL FEEDING

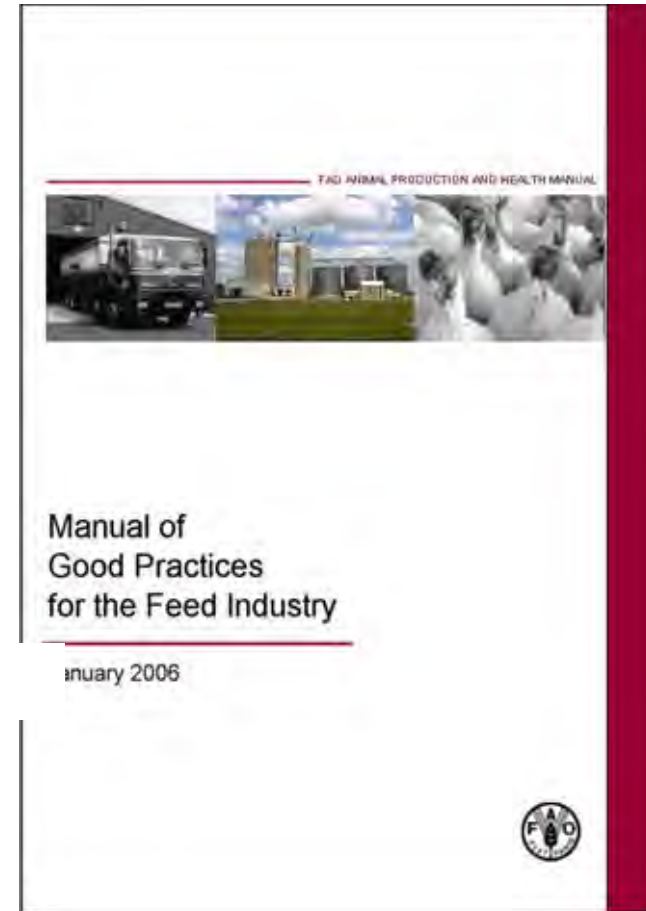
CAC/RCP 54-2004

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**Codex Alimentarius**

# FAO/IFIF Manual of Good Practices for the Feed Industry









FAO considers partnerships have a key role in ensuring an equitable, safe and responsible livestock sector.

As a unique facilitating and enabler between the private and public sectors, as well as improve understanding between the private sector



ivil

# Feed Safety Multi-stakeholder Partnership



# FAO Manual of Feed Safety Risk Assessment



Feed Safety

Risk Assessment



### Global Feed Safety Platform

- Background
- Databases
- Resources
- Forum
- News and Events
- Login



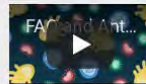
Feed regulators and industry from around the world discuss critical issues with IFIF and FAO at 11th International Feed Regulators Meeting (IFRM)

#### What is the Feed Safety Platform?

The Global Feed Safety Platform is a knowledge exchange mechanism to produce, collect and make available a wide range of information and knowledge on feed safety from numerous sources across the world. It brings together all relevant stakeholders along the feed and food chain from the public and private sector, the civil society, academia and research centres. All users of the website can contribute to its content by submitting links to publications, legislation, news and much more. Through the databases you can find and contact expert and professionals, as well as organizations and institutions working on feed safety. The platform is a product of the FAO coordinated Feed Safety Multi-Stakeholder Partnership; we would like to acknowledge the contributions of all partners and users.

[+ \[more\]](#)

#### Videos



FAO and Antimicrobial Resistance



Antimicrobial Resistance. The role of food and agriculture



Voices from the Feed Sector on containing Antimicrobial Resistance

#### Resources



**Policies and strategies**  
Regional consultation



**Publication**  
OECD-FAO Agricultural

#### Events

13/09/2018 - 13/09/2018  
Germany  
100 years German Feed Association - annual meeting

08/11/2018 - 09/11/2018  
Italy  
FAO-IFIF Annual Meeting

#### In the news

13/07/2018  
Feed safety first: IFIF to train the trainer in Ghana

13/06/2018  
Veterinary drug residues: non-compliance remains low

#### Announcements

Calls on carry-over from feed to food of unavoidable and unintended residues of approved veterinary drugs

Examine the use of



# International Feed Regulators Meeting (IFRM)

# International Feed Regulators Meeting (IFRM)

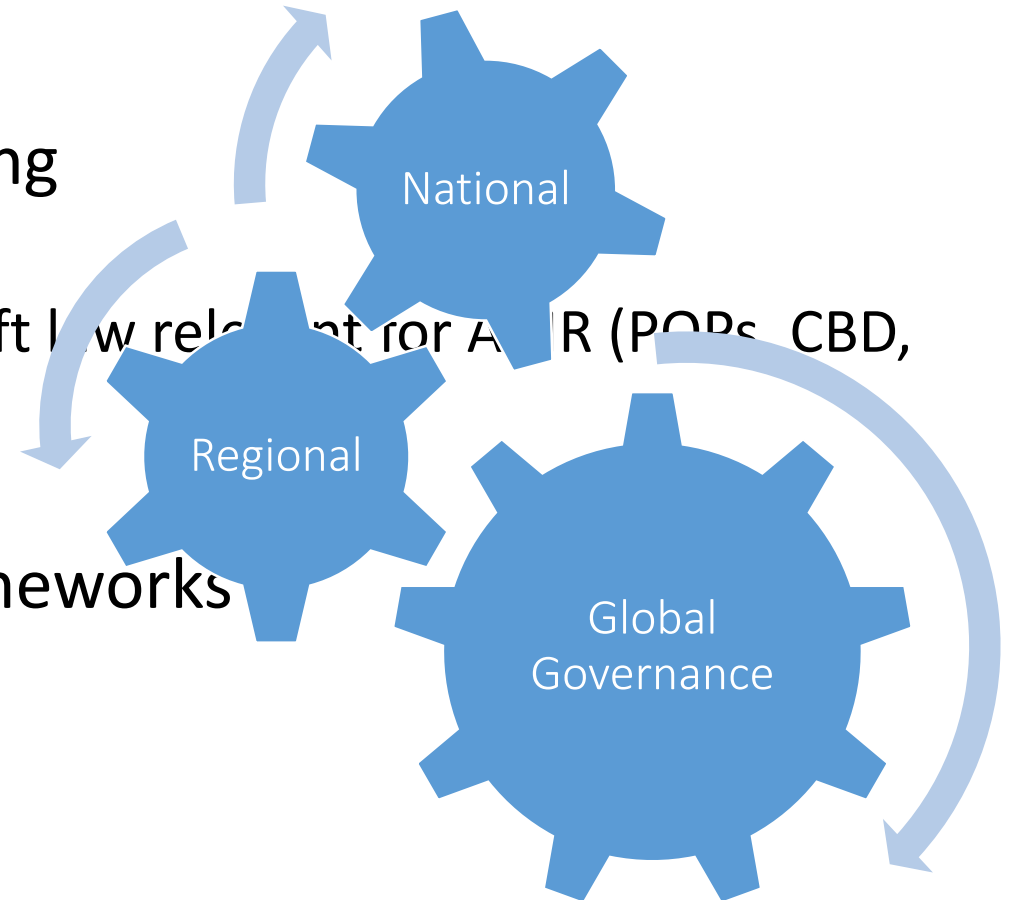
13th International Feed Regulators Meeting (IFRM)

27/01/2020 - 28/01/2020

United States of America, Atlanta

# LEGISLATION IS PART OF GOVERNANCE

- Global regulatory framework, including
  - High level declarations specific to AMR
  - Other global forums, Conventions or soft law relevant for AMR (POPs, CBD, SPS reference standards (OIE, Codex))
- National and regional regulatory frameworks
  - Policies
  - Legislation



# ROLE OF LEGISLATION...

Turns policy objectives into clear obligations and makes them sustainable

Clarifies roles and responsibilities of governments and stakeholders

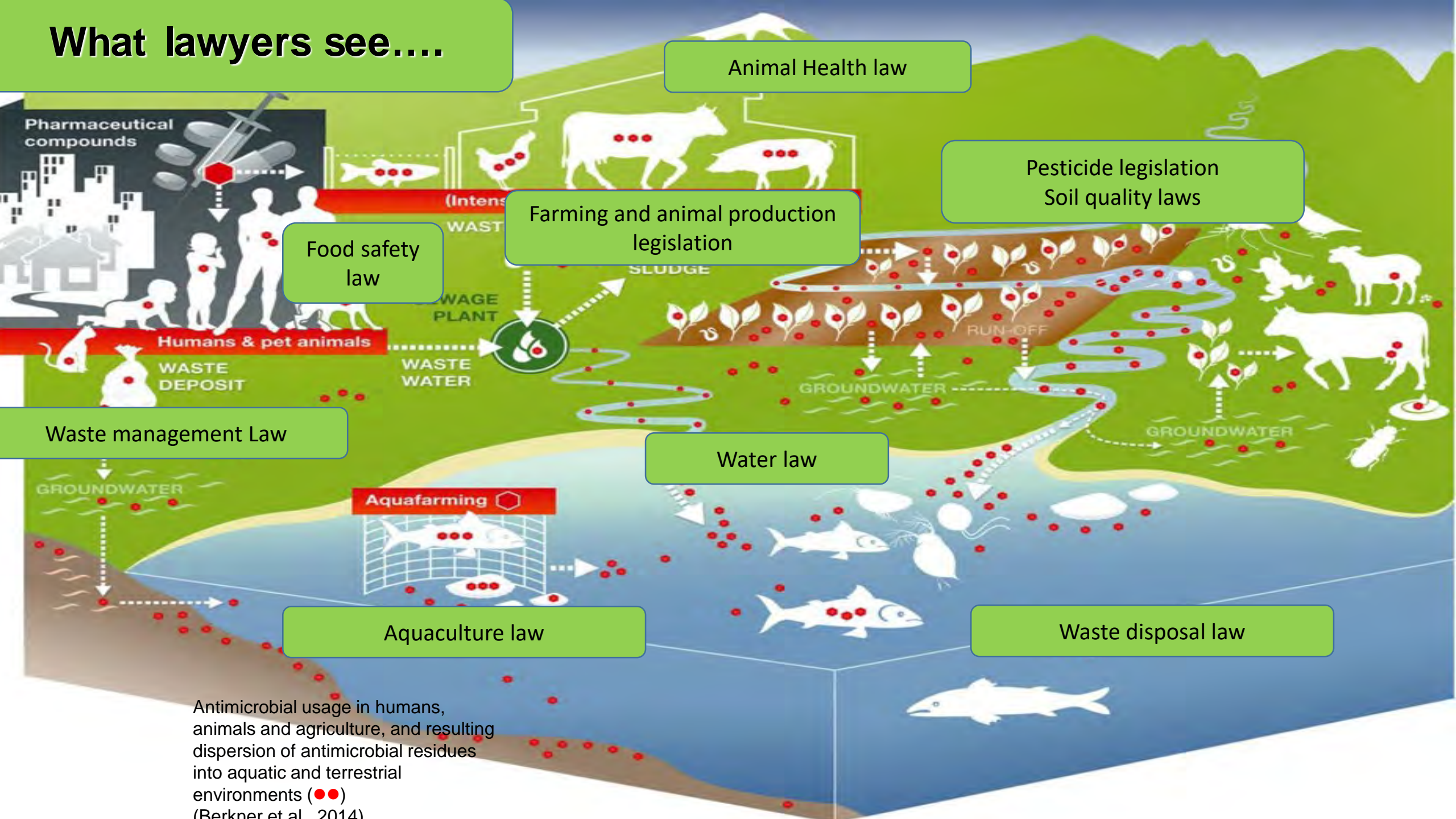
Sets up mechanisms for coordination

Introduces regulatory mechanisms (licenses, permits)

Regulates inspections, introduces offences and sanctions



# What lawyers see....



Animal Health law

Pesticide legislation  
Soil quality laws

Farming and animal production  
legislation

Food safety  
law

Pharmaceutical  
compounds

Humans & pet animals

Waste management Law

Water law

Aquafarming

Aquaculture law

Waste disposal law

Antimicrobial usage in humans,  
animals and agriculture, and resulting  
dispersion of antimicrobial residues  
into aquatic and terrestrial  
environments (●●)  
(Berkner et al. 2014)

# AMR

working at country level on animal, plant health, food safety and environmental legislation



[www.fao.org/legal](http://www.fao.org/legal)

Identification of legal elements and areas relevant for AMR and AMU

Recommendations to mainstream AMU-related obligations and responsibilities in the relevant legislation

Support to participatory processes for legal reform

**LEGAL INFORMATION – FAOLEX ([fao.org/ faolex](http://fao.org/faolex))**



# IDENTIFICATION OF LEGISLATION/REGULATORY AREAS FOR AMR AND AMU?

- ✓ Any legislation that may have a direct or indirect impact on AMR, including prevention, control and good practices/alternatives to AM use
- ✓ **Not necessarily need** specific AMR law, decree or regulation
- ✓ **Not necessarily** specific references to AMR in legislation – focus on rules/elements guided by international standards

# LEGAL AREAS AND ELEMENTS RELEVANT FOR AMR (FOOD AND AGRICULTURE)

1- How are AMs regulated?

- Veterinary Medicinal Products
- Medicated feed
- Pesticides
- Other AMs (additives?)

2- How to prevent contamination of food and the environment with AMs?

- Food safety
- Environment, soil and waste
- Water quality

3- Minimizing the need for AMs  
(improved animal and environmental health)

- Animal health and welfare
- Plant health
- Institutional coordination





THANK  
YOU

**Dr Elisabeth Erlacher-Vindel**

Head, Antimicrobial Resistance and Veterinary Products Department

**OIE activities supporting countries  
to achieve their antimicrobial resistance  
National Action Plan goals**



7<sup>th</sup> SESSION OF THE AD HOC CODEX INTERGOVERNMENTAL TASK  
FORCE ON ANTIMICROBIAL RESISTANCE

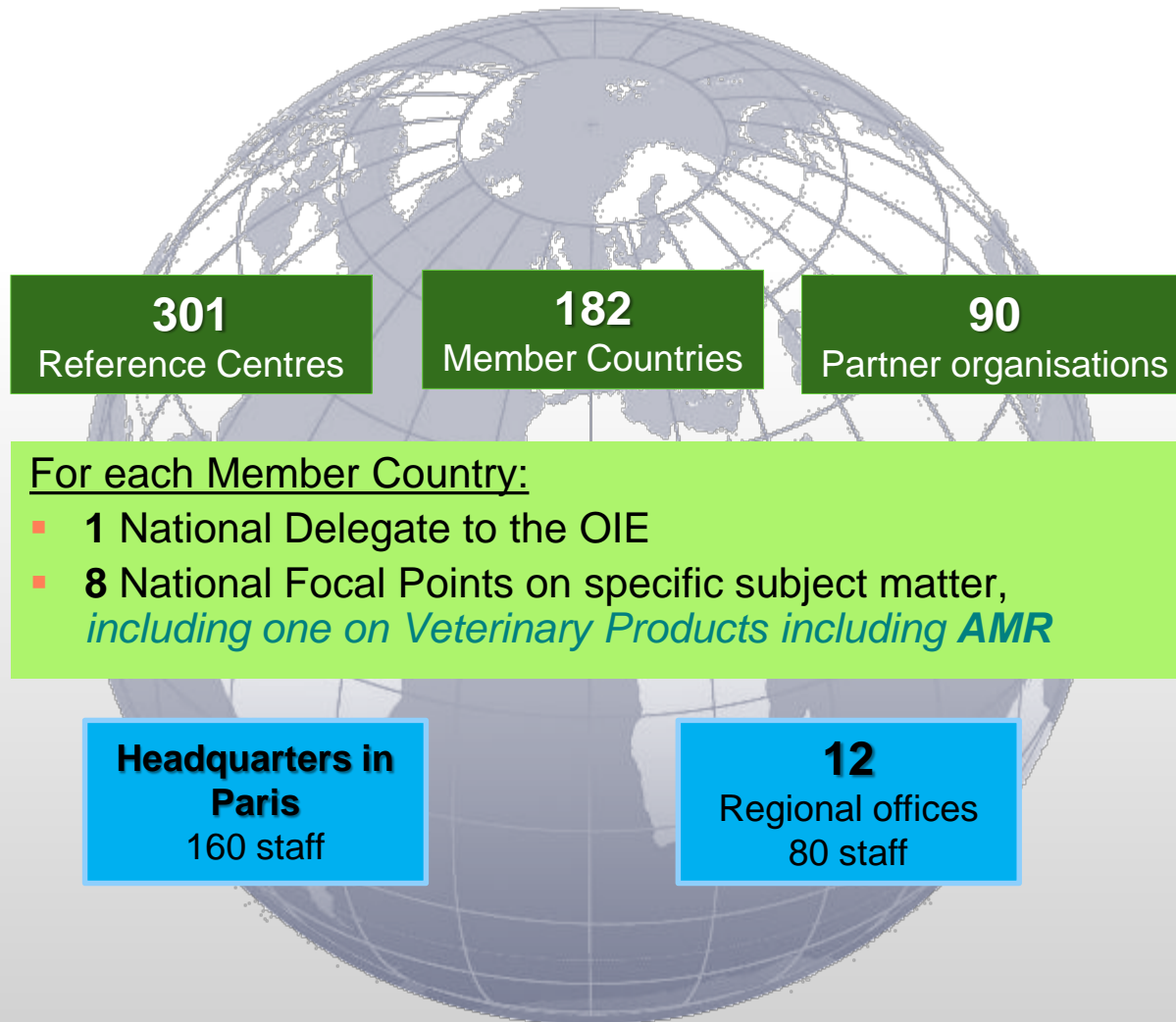
Pyeongchang, Republic of Korea, 9-13 December 2019



# OIE

## World Organisation for Animal Health

- An Intergovernmental Organisation
- Formed in **1924** as the *Office International des Epizooties* (OIE)
- Mandate to Improve Animal Health, Welfare and Veterinary Public Health
- **Sets international standards recognized by the WTO**



# The OIE Strategy on AMR and the Prudent Use of Antimicrobials

- The OIE Strategy **supports the objectives established in the Global Action Plan on antimicrobial resistance** and reflects the mandate of the OIE, through four main objectives:





# 1 Improve awareness and understanding

The screenshot shows a website with a dark red sidebar on the left and a main content area. The sidebar contains the text 'WE NEED YOU' at the top, followed by 'WHO ARE YOU?' and a list of categories: 'VETERINARY SERVICES', 'POLICY MAKERS', 'VETERINARIANS', 'VETERINARY STUDENTS', 'FARMERS', 'PHARMACEUTICAL INDUSTRY', 'WHOLESALERS AND RETAILERS', and 'ANIMAL FEED MANUFACTURERS'. The main content area features a video player with a yellow background and the text 'WE NEED YOU' in large, stylized letters. Below the video player, there is a dark blue banner with the text 'WE ALL HAVE A ROLE TO PLAY TO HANDLE ANTIMICROBIALS WITH CARE'. At the bottom, there is a white section with a photo of a sheep and the text 'Misuse and overuse of antimicrobials increase resistance risk, endangering both animal and human health and welfare.' and the URL 'https://oie-antimicrobial.com/'.

**WE NEED YOU**

WHO ARE YOU?

- ▶ VETERINARY SERVICES
- ▶ POLICY MAKERS
- ▶ VETERINARIANS
- ▶ VETERINARY STUDENTS
- ▶ FARMERS
- ▶ PHARMACEUTICAL INDUSTRY
- ▶ WHOLESALERS AND RETAILERS
- ▶ ANIMAL FEED MANUFACTURERS

**WE NEED YOU**

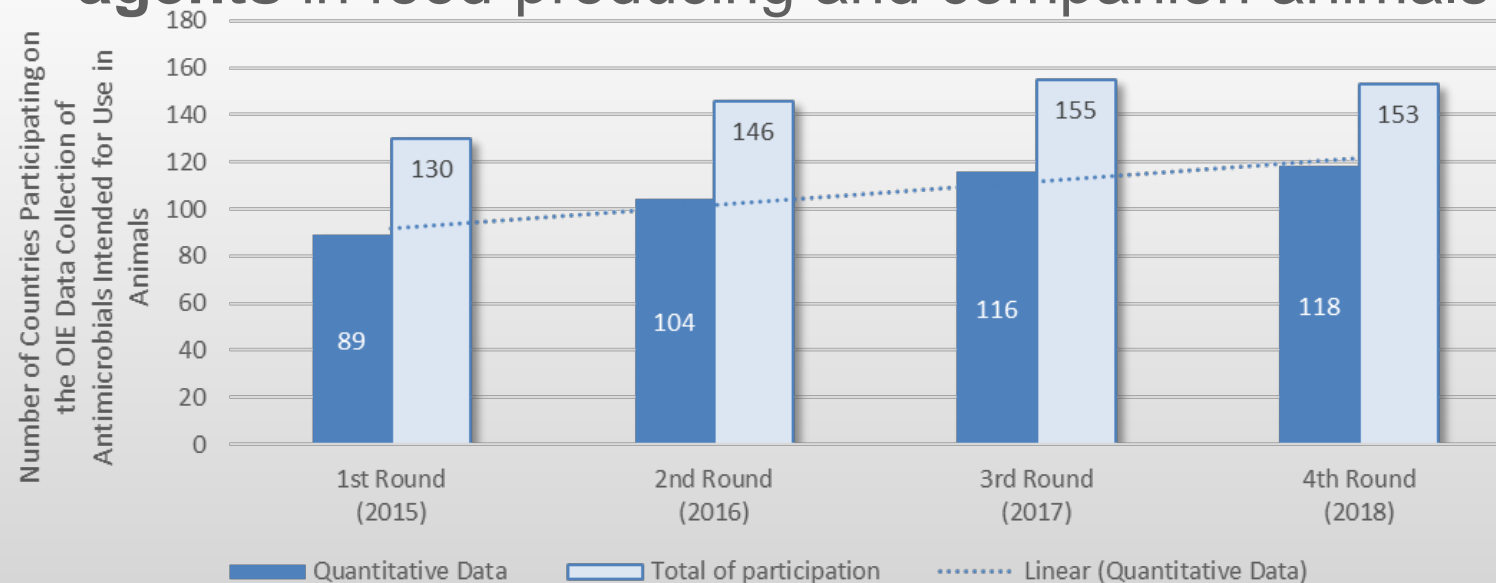
WE ALL HAVE A ROLE TO PLAY TO HANDLE  
**ANTIMICROBIALS**  
WITH CARE

Misuse and overuse of antimicrobials increase resistance risk, endangering both animal and human health and welfare.

<https://oie-antimicrobial.com/>

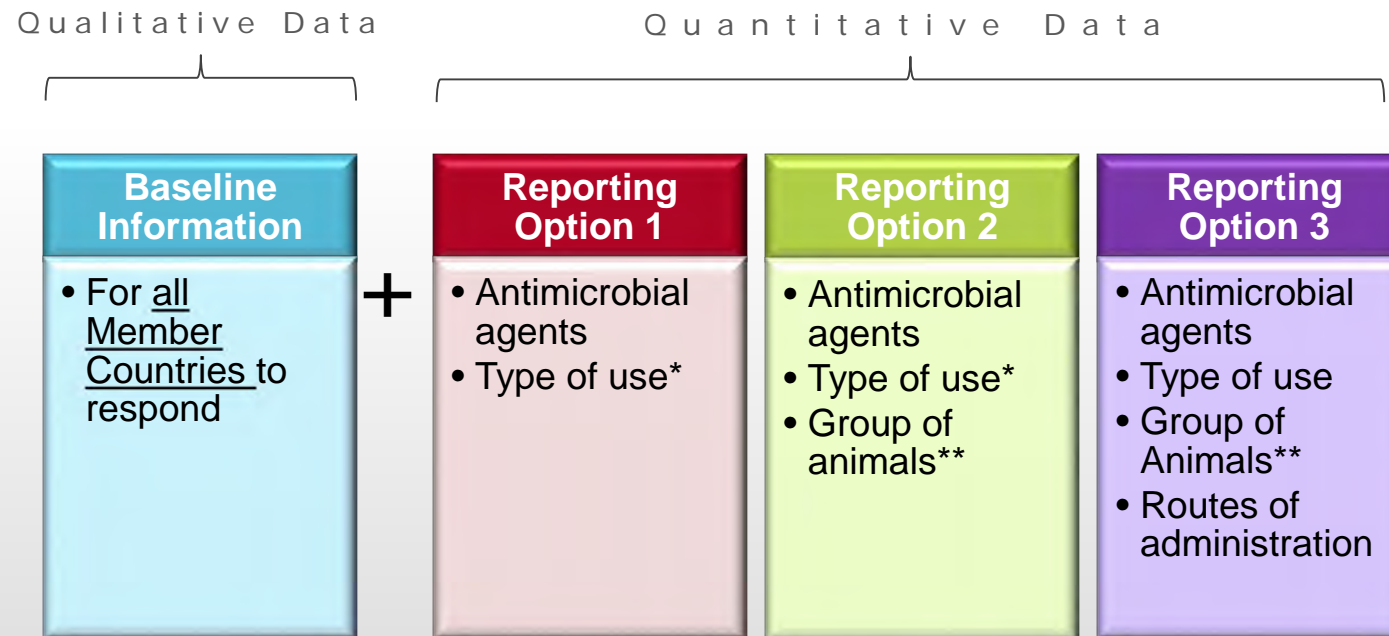
## 2 Strengthen knowledge through surveillance & research

- **Harmonised monitoring and surveillance systems** (Chapter 6.9 of Terrestrial Code & Chapter 6.3 of Aquatic Code)
- collecting **data on the use of antimicrobial agents** in food-producing and companion animals



# Reporting Options

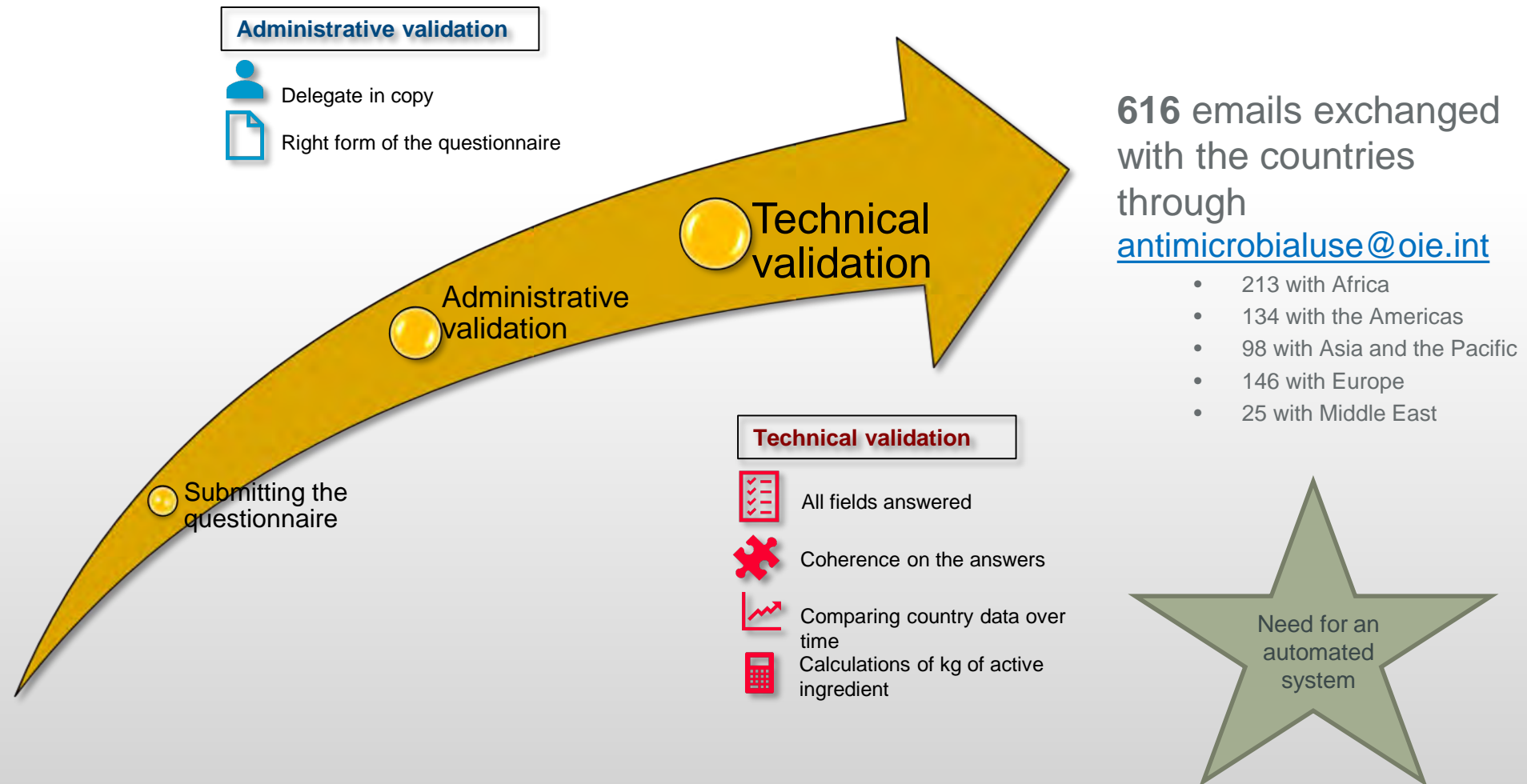
The sections of the OIE Template named 'Reporting Options' 1, 2 and 3, collect the quantities of antimicrobial agents intended for use in animals.



\* Type of use: veterinary medical use or growth promotion

\*\*For the purposes of the OIE database, animal groups means: 'terrestrial food-producing animals', 'aquatic food-producing animals' or 'Companion animals'

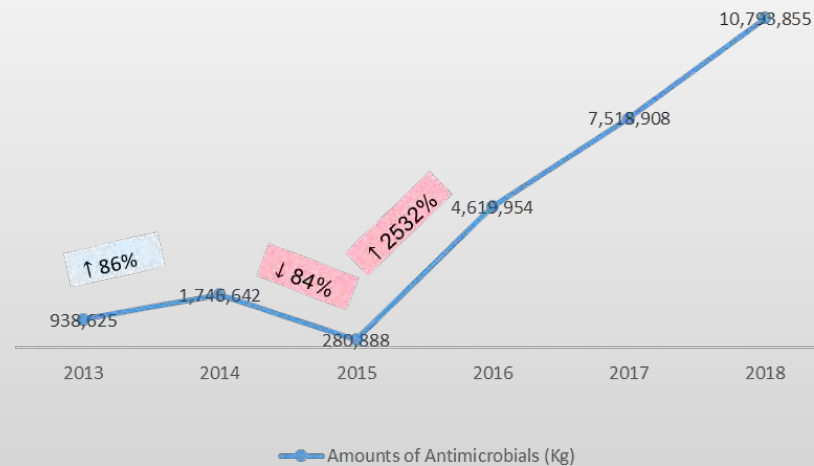
# Interaction with the Countries (4<sup>th</sup> Round)



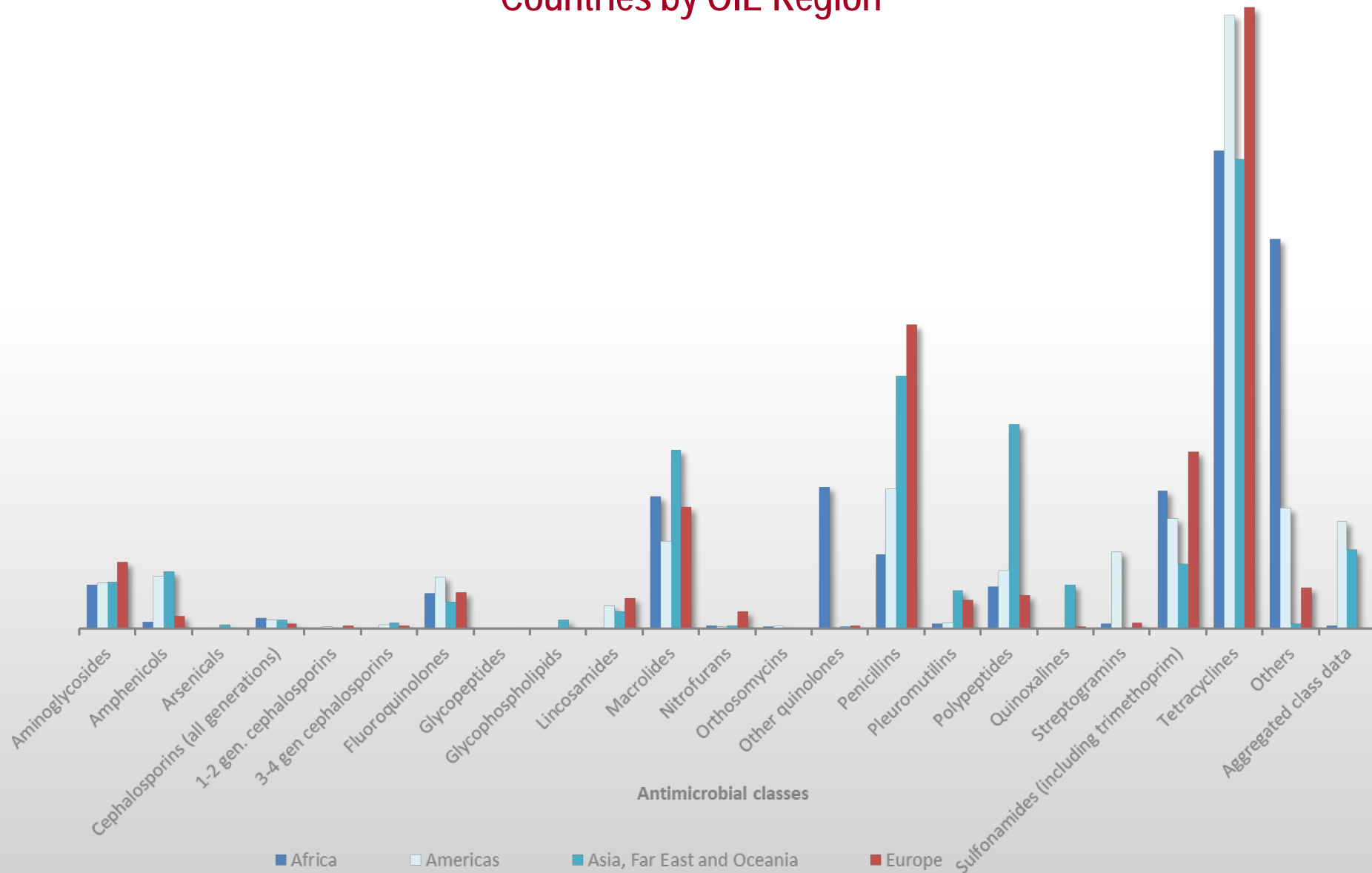


# Exchange with Countries

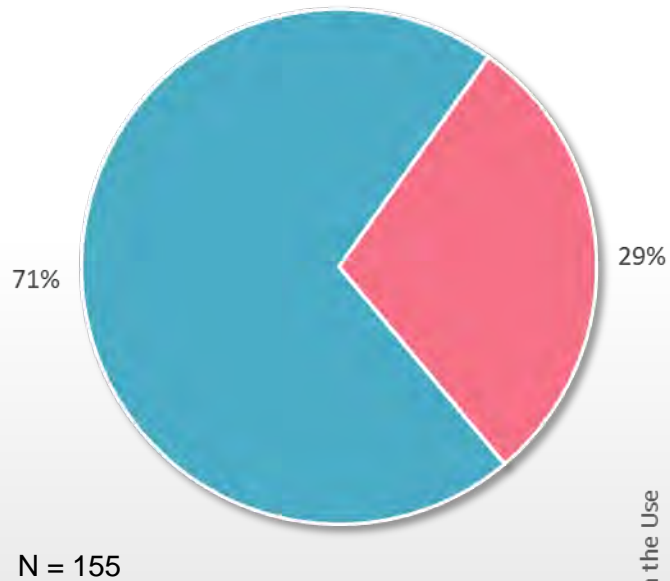
- Validation of the data (emails – phone calls)
- Around 80% of the countries changed their original report after the clarifications:
  - Data sources
  - Quantities
  - Antimicrobial growth promoters
  - Reporting Option
  - Data Coverage



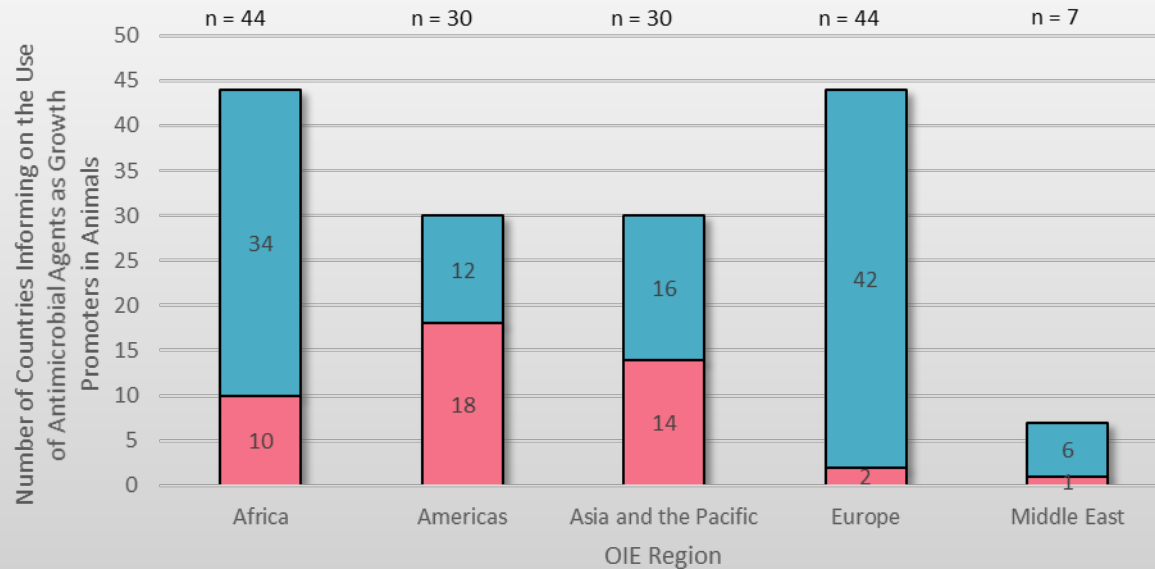
# Proportion of Antimicrobial Quantities Reported for Use in Animals by 113 Member Countries by OIE Region



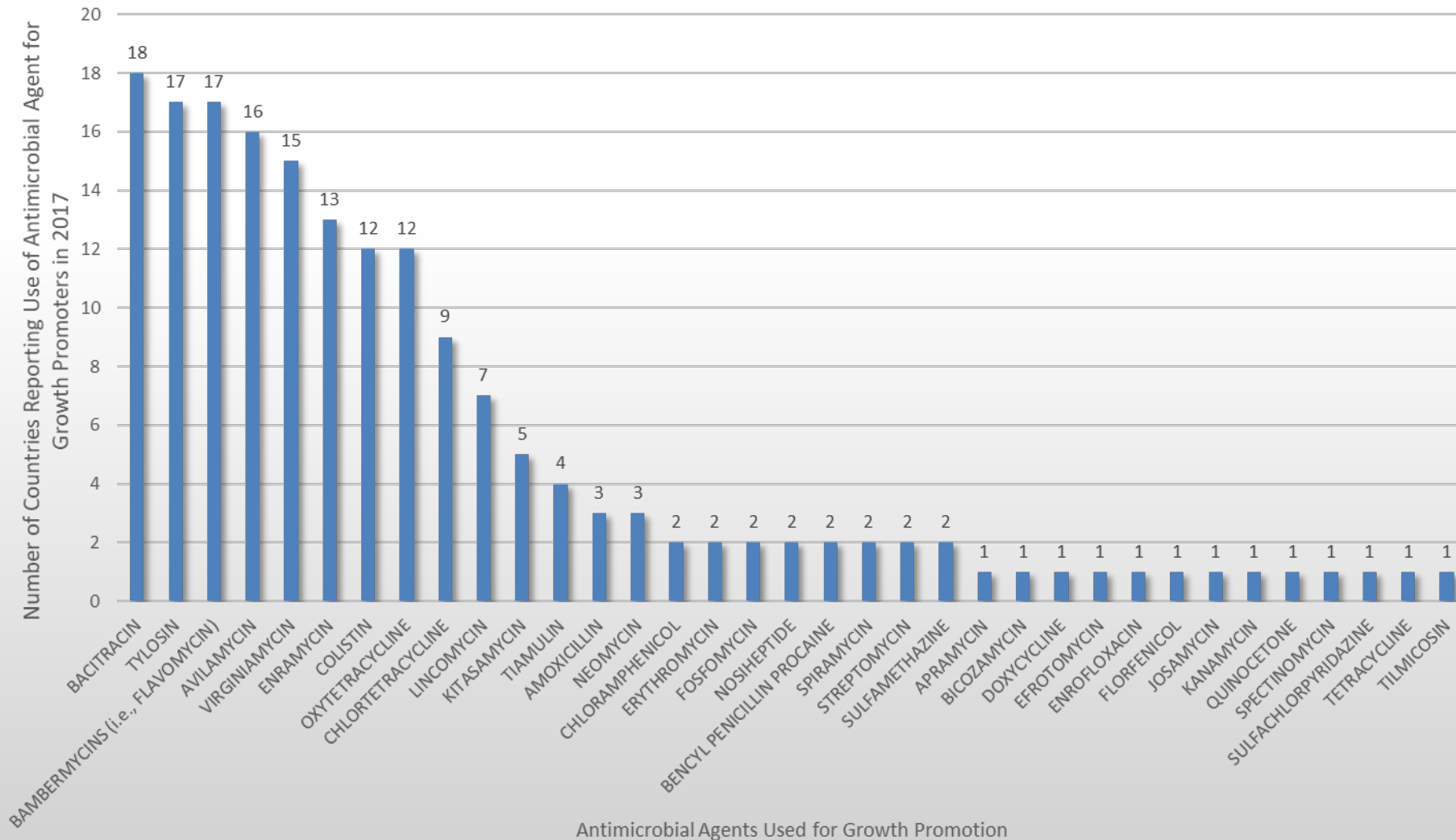
# Use of Antimicrobial Agents as Growth Promoters, Third Round (2017)



- No Use of Antimicrobial Growth Promoters
- Use of Antimicrobial Growth Promoters



# Antimicrobial Agents Used for Growth Promotion in Animals in 31 Countries, Third Round (2017)

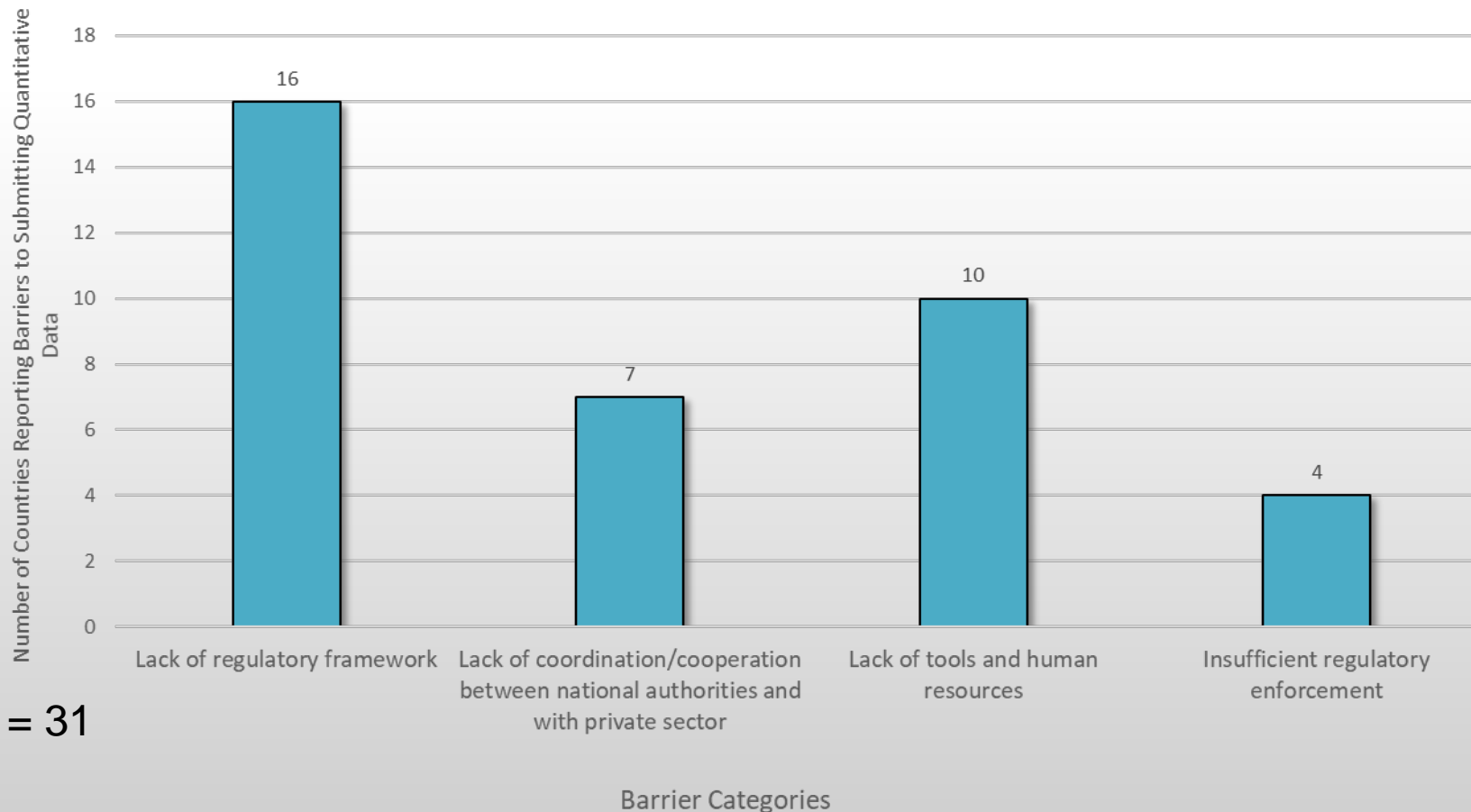


Antimicrobial Agents Used for Growth Promotion



# Barriers to Providing Data on Quantities of Antimicrobial Agents in Animals, Third Round (2017)

From the 38 countries that reported barriers during the 2<sup>nd</sup> Round, 11 countries (29%) passed to report quantitative data for the first time in the 3<sup>rd</sup> Round.



N = 31

# Future Development (AMU Database System)



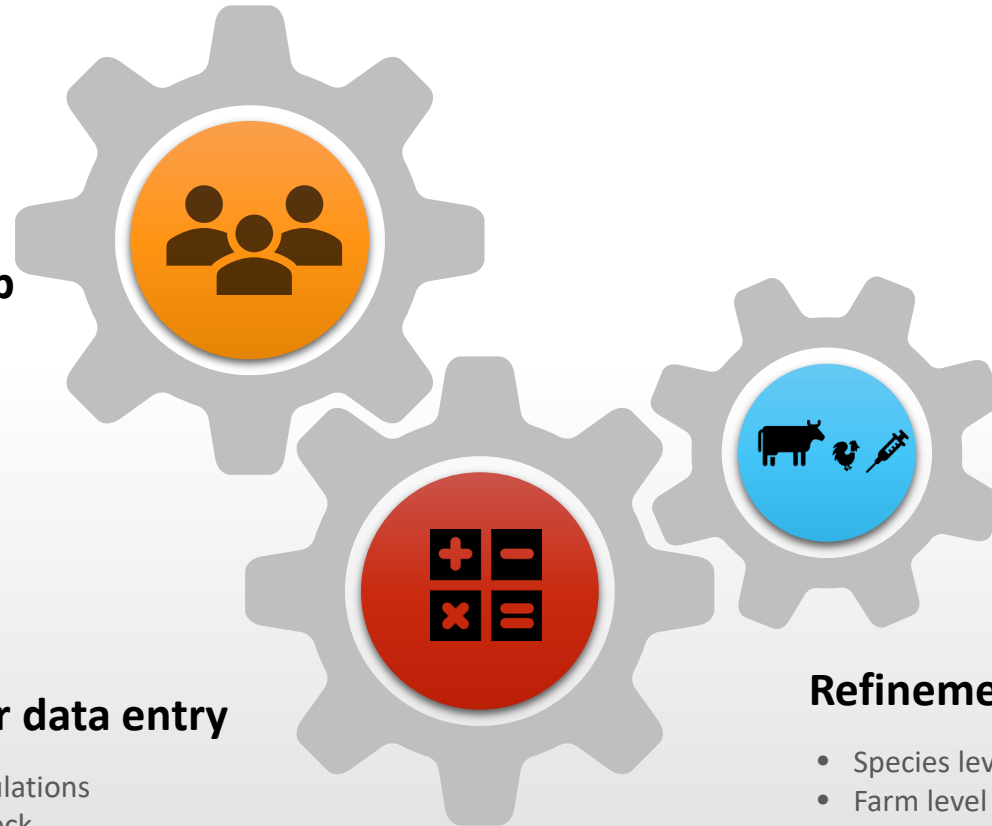
## Country Data Ownership

- Specific trend analysis
- Raised awareness
- Increased transparency



## Less burden for data entry

- Automatic calculations
- Data quality check
- Detailed data analysis

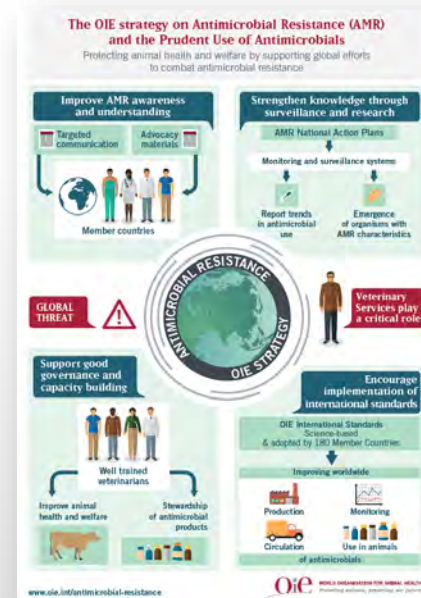


## Refinement of Information

- Species level data
- Farm level data
- Connection with other data sources:
  - ✓ OIE-WAHIS (World Animal Health Information System)
  - ✓ TISSA (Tripartite Integrated System for Surveillance on AMR and Antimicrobial Use)
  - ✓ PVS (Performance of Veterinary Services)

### 3 Support good governance and capacity building

- assist in implementing **National Action Plans**, promoting a “One Health” approach
- provide **tools and guidance**
- ensure **Veterinary Services capacity** through **PVS Pathway**
- develop and modernise **legislation**
- provide training of **Focal Points**
- Ensure that well-trained **veterinarians and veterinary para-professionals** are at the forefront



# OIE PVS Pathway: 140 missions done

Sustainable consolidation of national animal health systems

## ORIENTATION

- A Sub-Regional Orientation Training Workshop
- B Sub-Regional Lessons Learnt Workshop

## EVALUATION

- A PVS Evaluation
- B PVS Evaluation Follow Up
- C PVS Self-Evaluation
- D PVS Evaluation
- E Specific Content

### TARGETED SUPPORT

- A One Health Integration (PVS/IHR)
- B Veterinary Legislation Support
- C Sustainable Laboratories
- D Veterinary and Paraprofessional Education
- E OIE National Focal Points Training

## 3 PLANNING

- A PVS Gap Analysis
- B PVS Strategic Planning Support

PVS  
Pathway

*The OIE collaborates with governments, donors and other stakeholders*



**NEW**

**2019**



AMR is now explicitly assessed in **PVS Evaluations** via a new 'Critical Competency' dedicated to AMR in the *PVS Tool* (2019 Ed.)

**Veterinary Legislation Support Programme**  
developing a specific focus on AMR in  
**COLLABORATION with FAO**

Pilot **OIE FAO**  
VLSP AMR mission

Pilot **OIE**  
VLSP AMR Questionnaire

# Regional Trainings of OIE Focal Points on veterinary Products /AMR

Trainings in 2019/20 (6<sup>th</sup> cycle), Focal Point network started in 2009

## ■ AMERICAS

- 26-27 September 2019.  
Montego Bay, Jamaica



## ■ AFRICA

- 9 -11 July 2019 . Addis Ababa, Ethiopia
- 9 -11 October 2019. Lomé, Togo
- 29-31 October 2019. Mombasa, Kenya



## ■ ASIA

- January 2020 Malaysia

## ■ MIDDLE EAST

- February 2020



## ■ EUROPE

- Second half of 2020



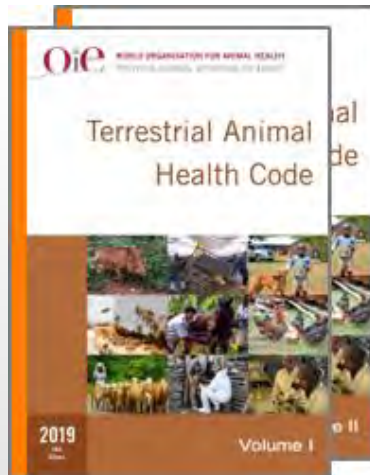
## 4 Encourage implementation of OIE standards

- support Member Countries in their efforts to **implement OIE standards**
- encourage adoption of recommendations in the **OIE List of Antimicrobials of Veterinary Importance**
- continue our **framework of quality, science-based standards**
- **collaborate with WHO, FAO and CODEX to develop an aligned framework of standards and guidelines**



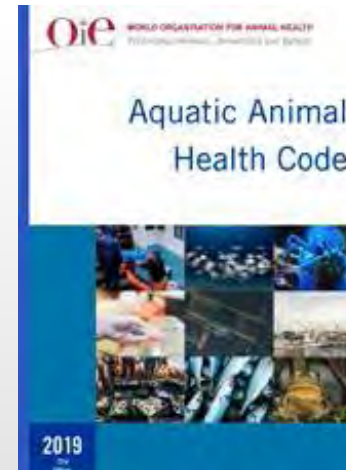
# OIE Standards and guideline related to antimicrobial resistance

## Terrestrial Animal Health Code



- Ch.6.7. **Introduction** to the recommendations for controlling antimicrobial resistance
- Ch.6.8. Harmonisation of national **AMR surveillance and monitoring** programmes (updated in May 2018)
- Ch.6.9. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in food-producing animals (Agreement on definitions)
- Ch.6.10. **Responsible and prudent use** of antimicrobial agents in veterinary medicine
- Ch.6.11. **Risk analysis** for AMR arising from the use of antimicrobial agents in animals

## Aquatic Animal Health Code



- Ch.6.2. Principles for **responsible and prudent use** of antimicrobial agents in aquatic animals
- Ch.6.3. **Monitoring of the quantities and usage patterns** of antimicrobial agents used in aquatic animals
- Ch.6.4. Development and harmonisation of national **AMR surveillance and monitoring** programmes for aquatic animals
- Ch.6.5. **Risk analysis** for AMR arising from the use of antimicrobial agents in aquatic animals



# Terrestrial Code Chapter 6.9. : Definitions adopted in May 2018

- **‘Veterinary medical use of antimicrobial agents’**: means the administration of an antimicrobial agent to an individual or a group of animals to treat, control or prevent infectious disease:
- **‘to treat’**: means to administer an antimicrobial agent to an individual or a group of animals showing clinical signs of an infectious disease;
- **‘to control’**: means to administer an antimicrobial agent to a group of animals containing sick animals and healthy animals (presumed to be infected), to minimise or resolve clinical signs and to prevent further spread of the disease;
- **‘to prevent’**: means to administer an antimicrobial agent to an individual or a group of animals at risk of acquiring a specific infection or in a specific situation where infectious disease is likely to occur if the drug is not administered.



# OIE List of Antimicrobial Agents of Veterinary Importance (May 2018)

Among the Veterinary **Critically Important** Antimicrobial Agents, **some are also of critical importance for human health** (third and fourth generation ***Cephalosporins***, and ***Fluoroquinolones***): ***Colistin*** has been moved in 2016 to the WHO category of Highest Priority Critically Important Antimicrobials.

Therefore these two classes and Colistin should

- **Not to be used** as preventive treatment in feed or water or in absence of clinical signs
- **Not to be used** as first line, unless justified and bacteriological test
- **Extra label/off label limited** and reserved for instances no alternatives are available

# Terrestrial Code Chapter 6.10.

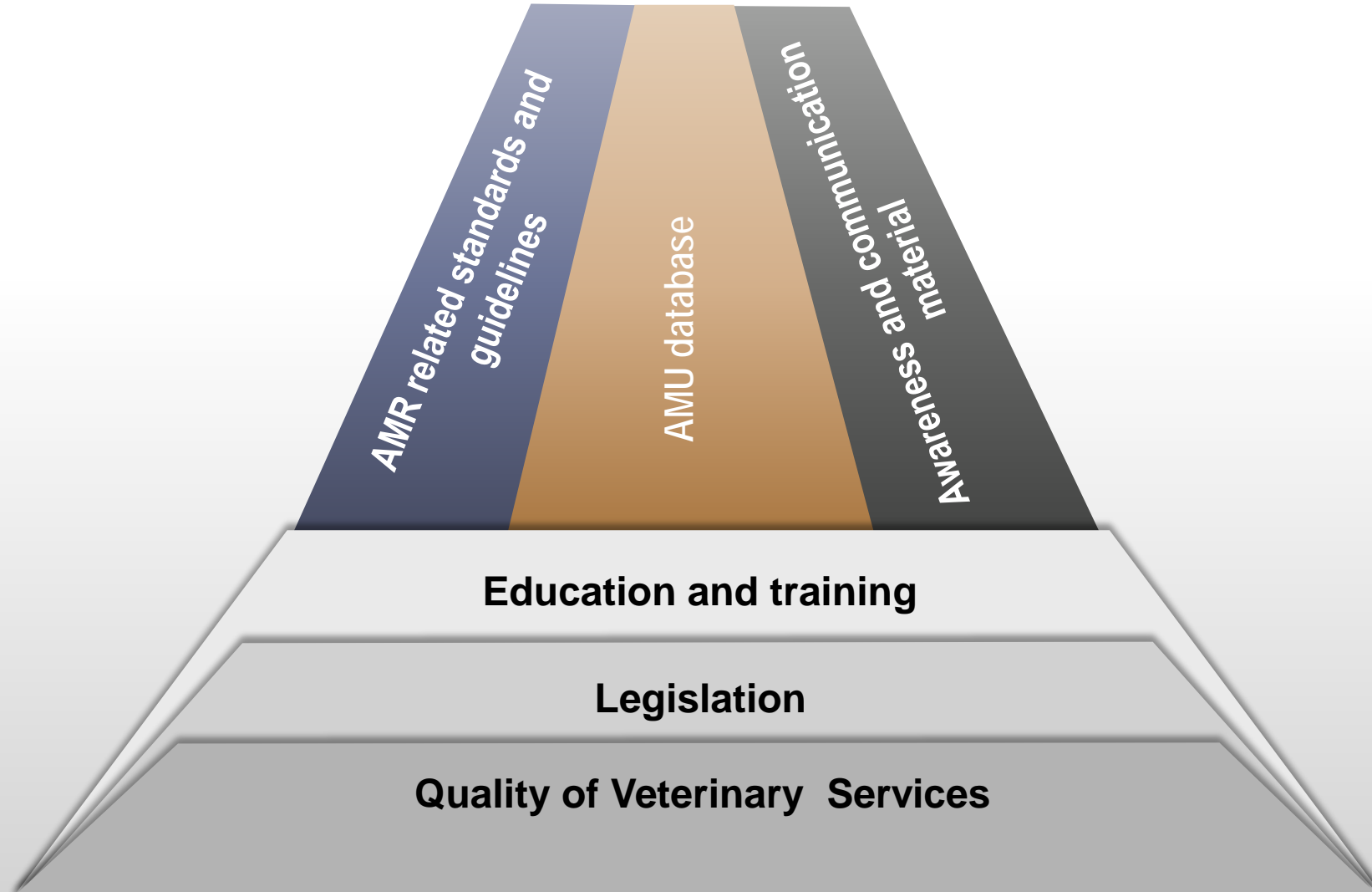
## Responsible and prudent use of antimicrobial agents in veterinary medicine

- Determined by the quality of the antimicrobial and by the distribution, prescription and administration of veterinary medicinal products containing antimicrobial agents
- **Recommendations for each of the parties involved:**
  - competent authority
  - veterinary pharmaceutical industry
  - wholesale and retail distributors
  - veterinarians
  - food-animal producers
  - animal feed manufacturers





# OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials



# Thank you for your attention



— TO HANDLE —  
**ANTIMICROBIALS**  
— WITH CARE —

**Oie**

**WORLD ORGANISATION FOR ANIMAL HEALTH**  
*Protecting animals, preserving our future*

12, rue de Prony, 75017 Paris, France  
[www.oie.int](http://www.oie.int)  
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# WHO Initiatives on Integrated Surveillance of AMR

Jorge Matheu

One Health surveillance and laboratory strengthening  
Surveillance, Prevention and Control of AMR

AMR Division

World Health Organization



# Advisory Group on Integrated Surveillance of Antimicrobial Resistance - AGISAR

Established in 2008 to support WHO's efforts to minimize the public health impact of antimicrobial resistance associated with the use of antimicrobials in food animals.

- 36 Members OIE and FAO
- Subcommittees
  - Usage Monitoring
  - Antimicrobial Resistance Surveillance
  - Capacity Building
  - Software Development

# AGISAR Objectives 2015: Support WHO on...

- Containment of AMR from the food chain
- Capacity building for integrated surveillance of AMR
- Monitoring of antimicrobial use
- WHO List of critically important antimicrobials (CIA list) for human medicine
- FAO/OIE/WHO tripartite activities and *Codex Alimentarius* activities on AMR





# AGISAR Activities: Overview

- Five-year Strategic Framework: 5 Thematic Working Groups
  1. Knowledge management and communication
  2. Critically Important Antimicrobials (CIA) list
  3. Optimal use of antimicrobial agents in food production (Tripartite Collaboration)
  4. Laboratory methods in antimicrobial susceptibility testing
  5. Data integration and analysis
- Capacity building in countries
  - Protocols and Guidance
  - Training workshops
  - **Pilot Projects**

# IACG recommendations to accelerate progress in countries

**Recommendation A3:** The IACG calls on all Member States **to phase out the use of antimicrobials for growth promotion**, consistent with guidance from the Tripartite agencies (FAO, OIE and WHO) and Codex Alimentarius, **starting with an immediate end to the use** of antibiotics categorized as the Highest Priority Critically Important Antimicrobial Agents on the WHO List of Critically Important Antimicrobials for Human Medicine.

- a. Quinolones;
- b. Third- and higher-generation cephalosporins;
- c. Macrolides and ketolides;
- d. Glycopeptides; and
- e. Polymyxins.

# Integrated Surveillance of AMR in Foodborne Bacteria- From Data to Information for Action

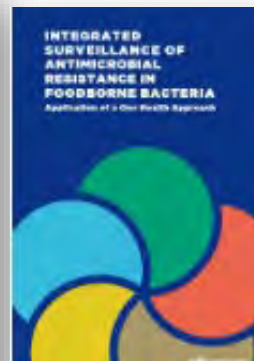


- WHO-AGISAR
- FAO and OIE collaboration
- Application of a One Health Approach
  - AMR surveillance in humans, animals, food
  - AMU surveillance in humans and animals
  - Combined analysis and reporting

<http://apps.who.int/iris/bitstream/10665/255747/1/9789241512411-eng.pdf?ua=1>

# Capacity building activities

- Aims to build national capacity to implement the integrated surveillance of AMR through:
  - Development of protocol, lab modules, guidance document
  - Training courses (1-week long)
  - **Pilot projects** (1 or 2 years long)



# Expected outcomes of AGISAR projects

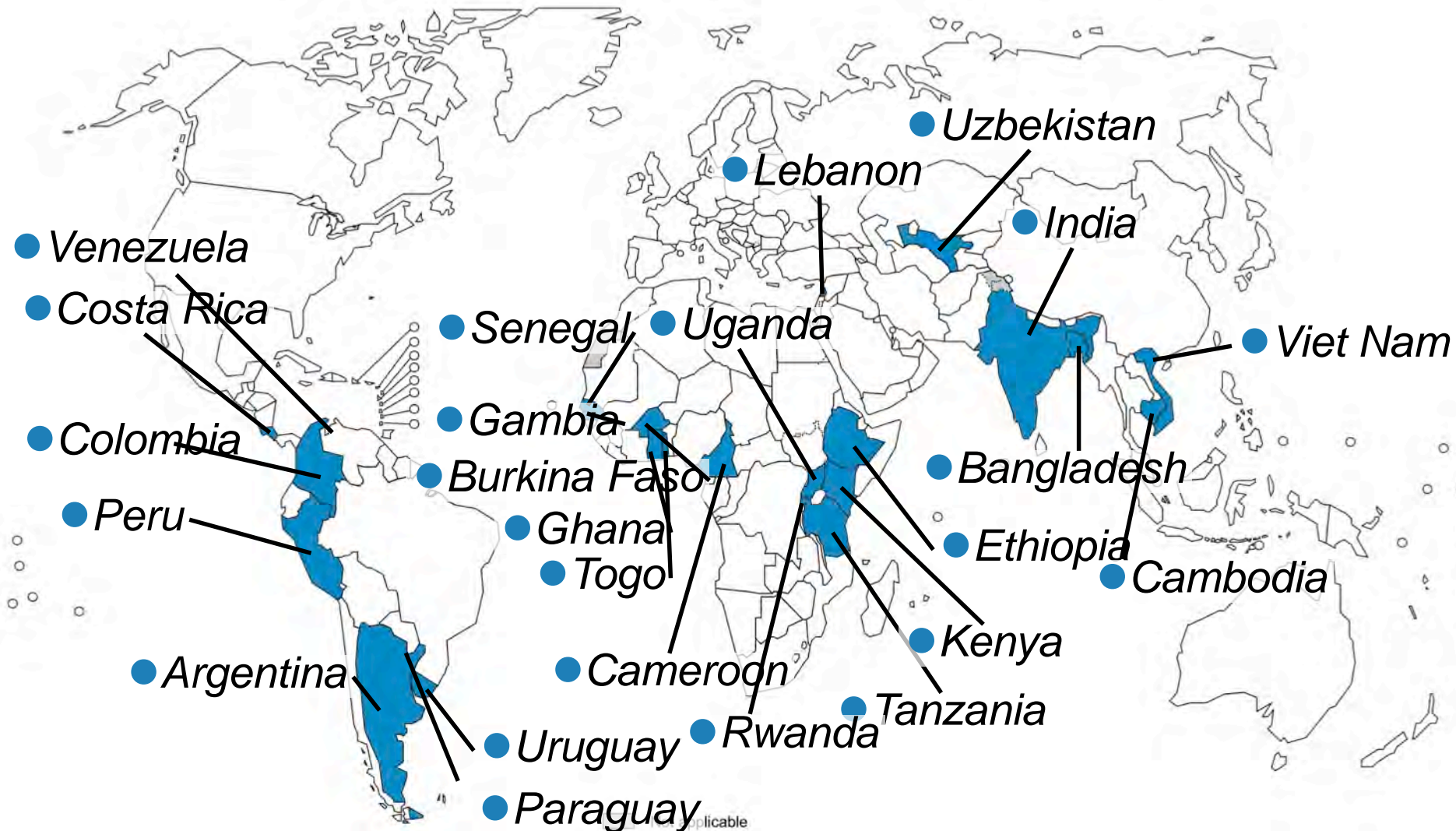
- Collaboration and communication between human, food and animal sectors
- Collaborative surveillance systems across countries or civil societies
- Policies based on evidence
- An understanding of the impact of interventions
- Collaborative surveillance systems between the World Health Organization (WHO), World Organization of Animal Health (OIE) and Food and Agriculture Organization (FAO)

## National programme on integrated surveillance of AMR

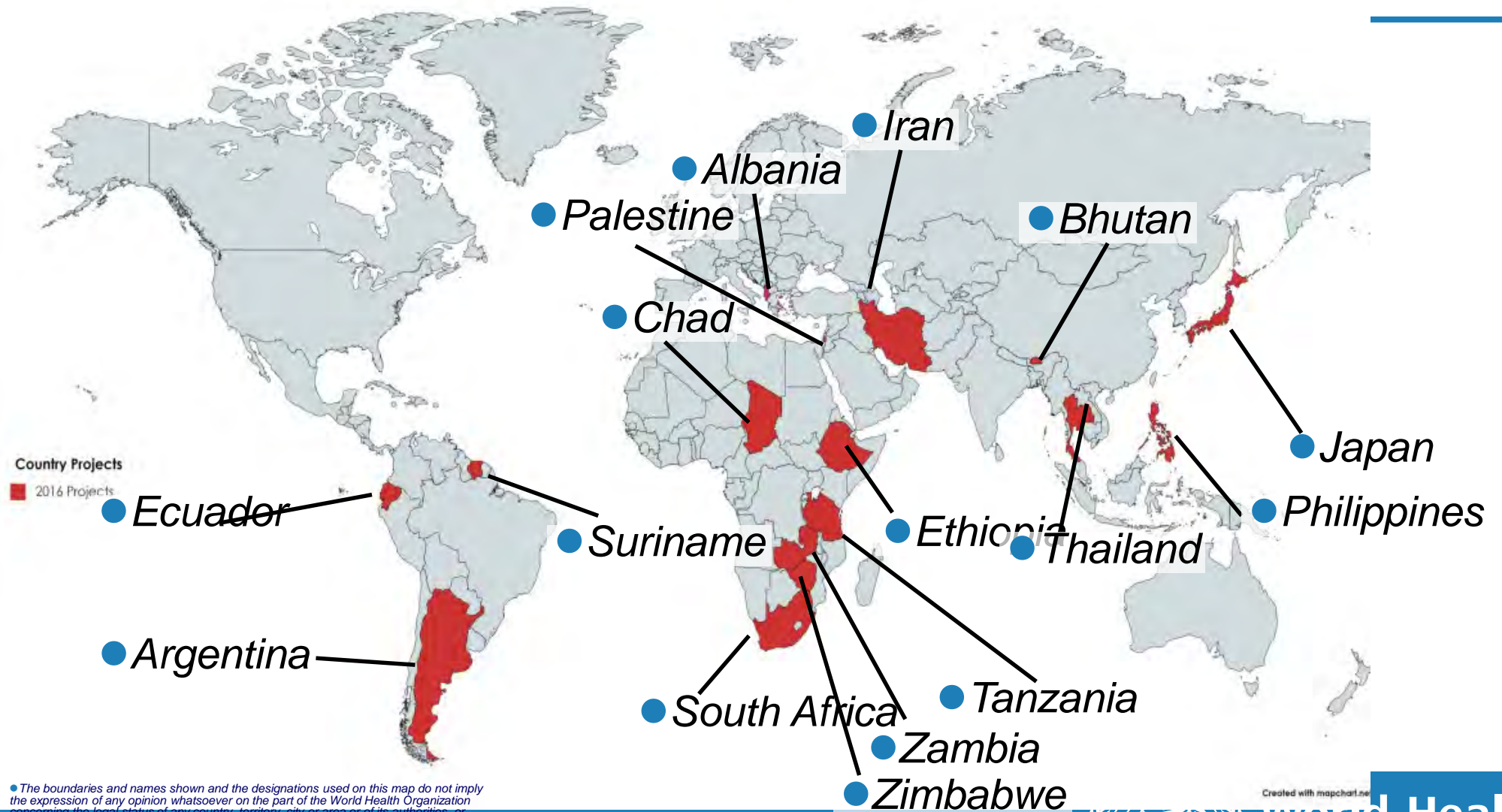




# ● 26 projects supported between 2010 and 2016



# AGISAR country projects – 2017 onwards



• The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.



Created with mapchart.net  
world Health Organization

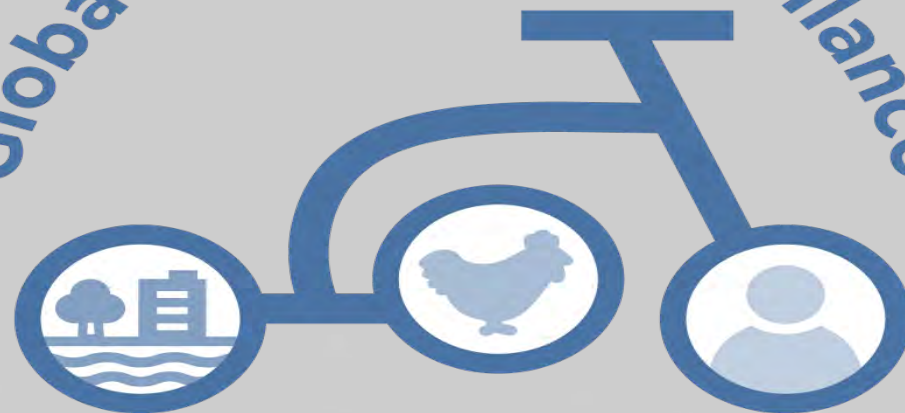
# From the AGISAR6 report

***Important issues raised during discussions*** included:

- ***Including all relevant sectors in integrated surveillance*** is required to understand the full picture. The role of water, sewage, and soil in maintaining resistant bacteria as a source for animals and people, as well as allowing for contact between different populations of resistant bacteria and possible transfer of genes, was repeatedly noted. Microorganisms from these sources need to be monitored, and contamination controlled. Similarly, antibiotic usage in crops and resistance in plant-derived foods would have to be included in any comprehensive, integrated surveillance plan.



# Global Tricycle Surveillance



**ESBL *E.coli***



# ESBL Ec Tricycle project: protocol development

Simple surveillance across the three main sectors

Simple microorganism and resistance mechanism as indicator



ESBL *E. coli*



Human



Food chain



Environment





# Objectives

- To establish an Integrated Surveillance System to monitor ESBL producing E. coli in three main areas, human, food chain and the environment across Member States
- To establish a simple and standardized methodology to isolate and monitor ESBL producing E. coli
- To compare the prevalence of ESBL Ec in each of the 3 sectors among Member States and
- To monitor effect of interventions



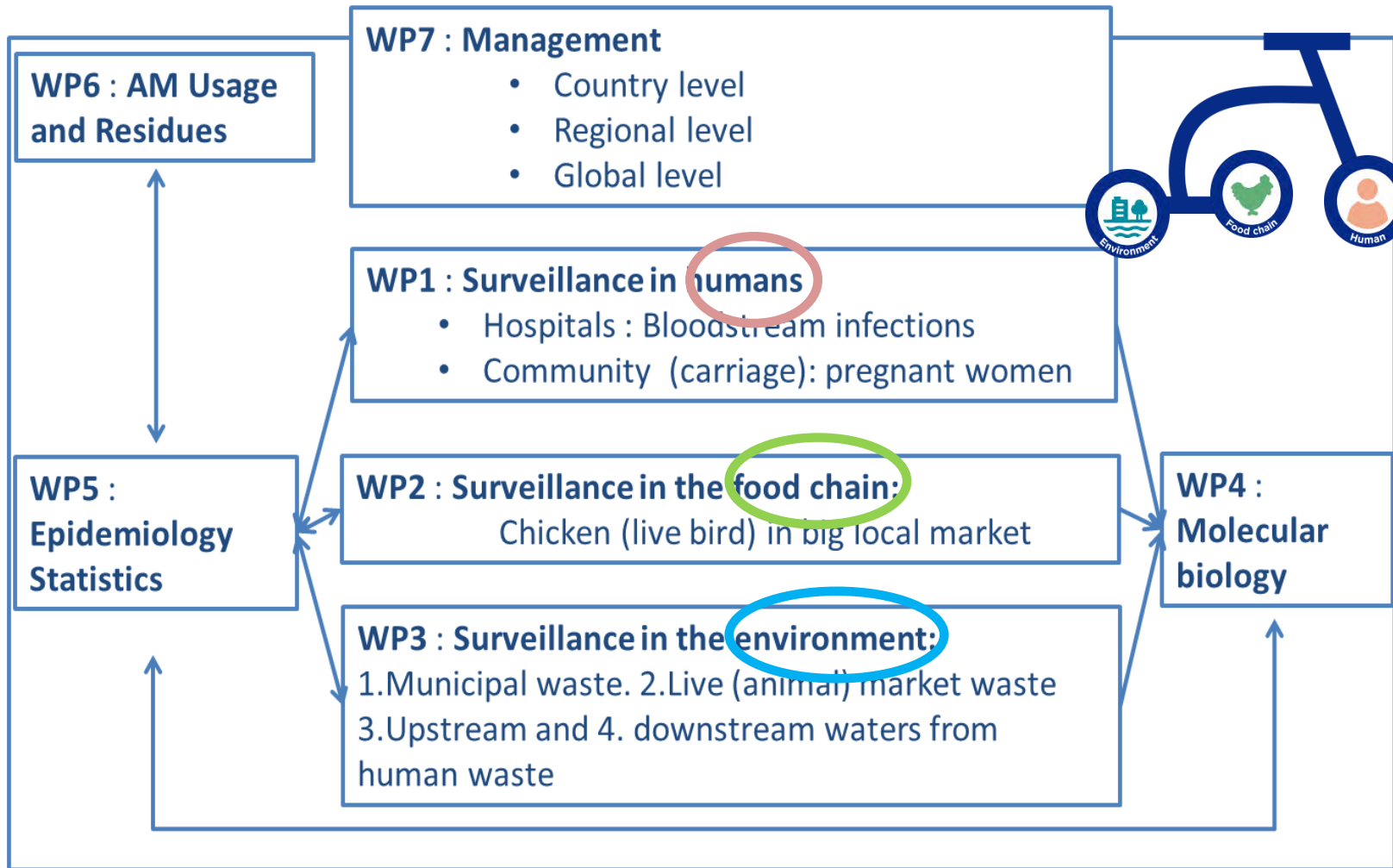


Figure 1. ESBL Ec Tricycle project.  
WP Working Package

# Pilot phase

- WHO AMR Regional focal point from AFRO, EMRO, SEARO and WPRO
- Established a List of Minimal, technical and supportive requirements
- Countries enrolled and implementing the pilot phase

Region	Final Selection
AFRO	Ghana, Senegal, Madagascar
EMRO	Pakistan, Jordan
SEARO	Indonesia, Nepal
WPRO	Malaysia



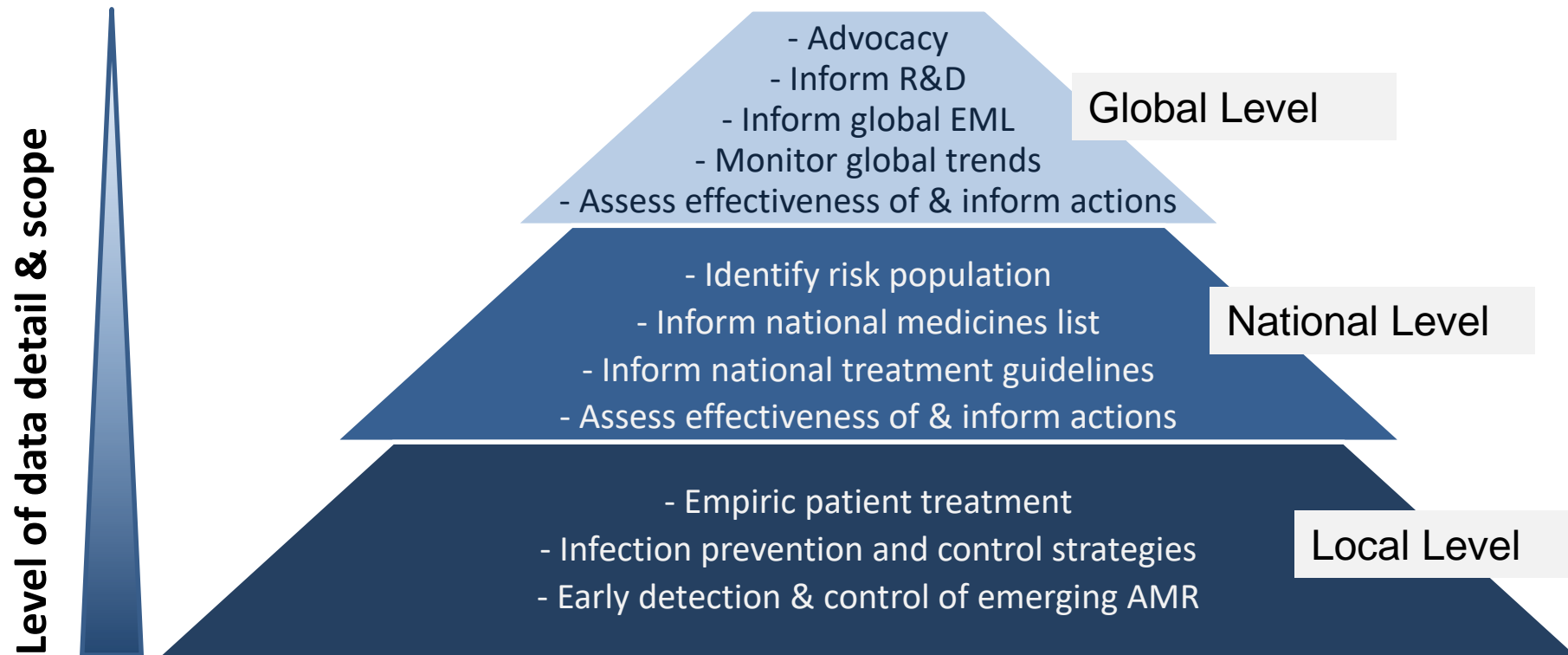
# Countries joining

- There are additional countries planning the implementation

Region	Final Selection
AFRO	Zimbabwe, Zambia, Kenya
AMRO/PAHO	Costa Rica, Paraguay
SEARO	Bangladesh, India, Sri Lanka, Thailand
EMRO	Jordan, Morocco, Sudan
WPRO	Lao PDR



# AMR surveillance and data use





# ESBL Ec Tricycle protocol

- Final version November 2019
- Current status: Peer review process

**Launch in the 1<sup>st</sup> quarter 2020**

# External Quality Assurance Program: WHO GFN/AGISAR EQA

- Global Foodborne Diseases Network –GFN- and AGISAR
- *Salmonella* sp Id, serotyping and AST
- Active since 2000
- 2017: 181 Laboratories, 81 countries
- Public Health, Animal Health and Food
- There is not participation fee

The External Quality Assurance System of the WHO Global Foodborne Infections Network, 2017



World Health Organization

CDC  
CENTERS FOR DISEASE CONTROL AND PREVENTION

International network  
Institut Pasteur

DTU Food  
National Food Institute



**THANK YOU**

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# Thank you!



Food and Agriculture  
Organization of the  
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