

Global and European progress on AMR-containment

Updates from the WHO EURO Region

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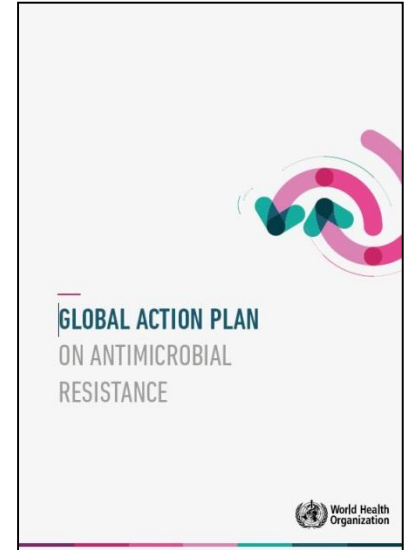
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Global AMR Action Plan - Strategic Objectives

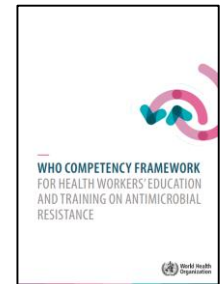
<http://who.int/antimicrobial-resistance/global-action-plan/en/>

1. Improve awareness and understanding
2. Strengthen knowledge and evidence base
3. Reduce incidence of infection
4. Optimize use of antimicrobial medicines
5. Develop economic case for sustainable investment



Global activities

- World Antibiotic Awareness Week (2015)
- Global AMR Surveillance System (GLASS) (2015)
- Global Antibiotic Research & Development Partnership (GARDP) (2016)
- Infection Prevention and Control core components (2016)
- Global Priority Pathogens List of Antibiotic-Resistant Bacteria (2017)
- Updated Essential Medicines List update (2017)
- WHO Competency Framework for health workers (2017)



Awareness Week



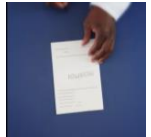
Materials

- Info-graphs
- Websites
- Videos
- Press releases
- Presentations



Activities

- Country events (press conferences, seminars, workshops)
- Social media (incl. global twitter chat)



Objectives of GLASS

Foster national AMR surveillance systems through harmonized global standards to:

- Monitor AMR trends
- Detect emerging resistance
- Inform estimates of AMR burden

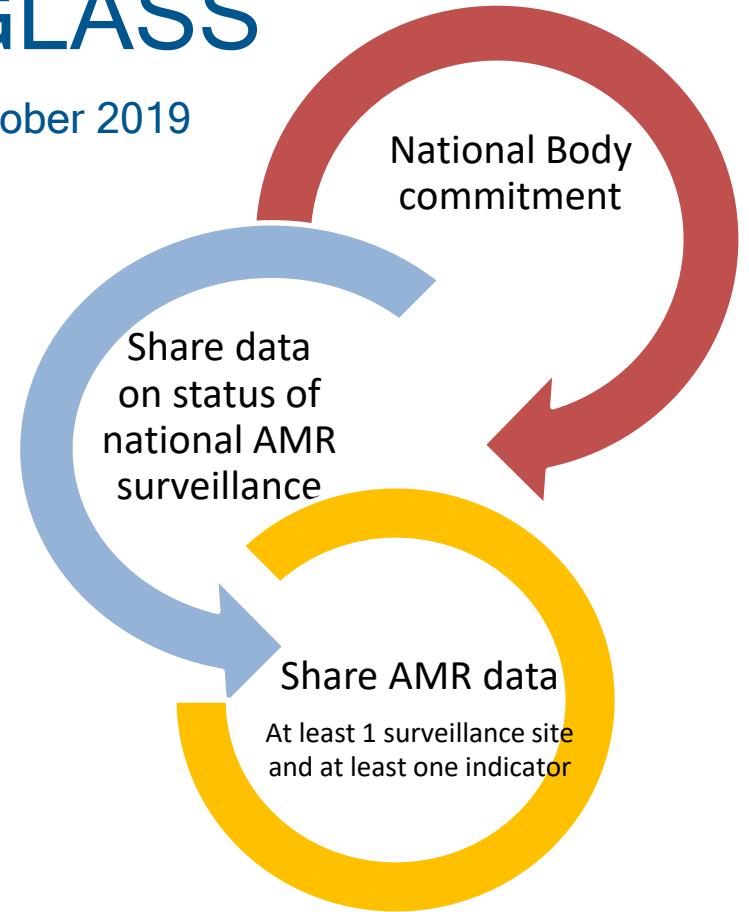
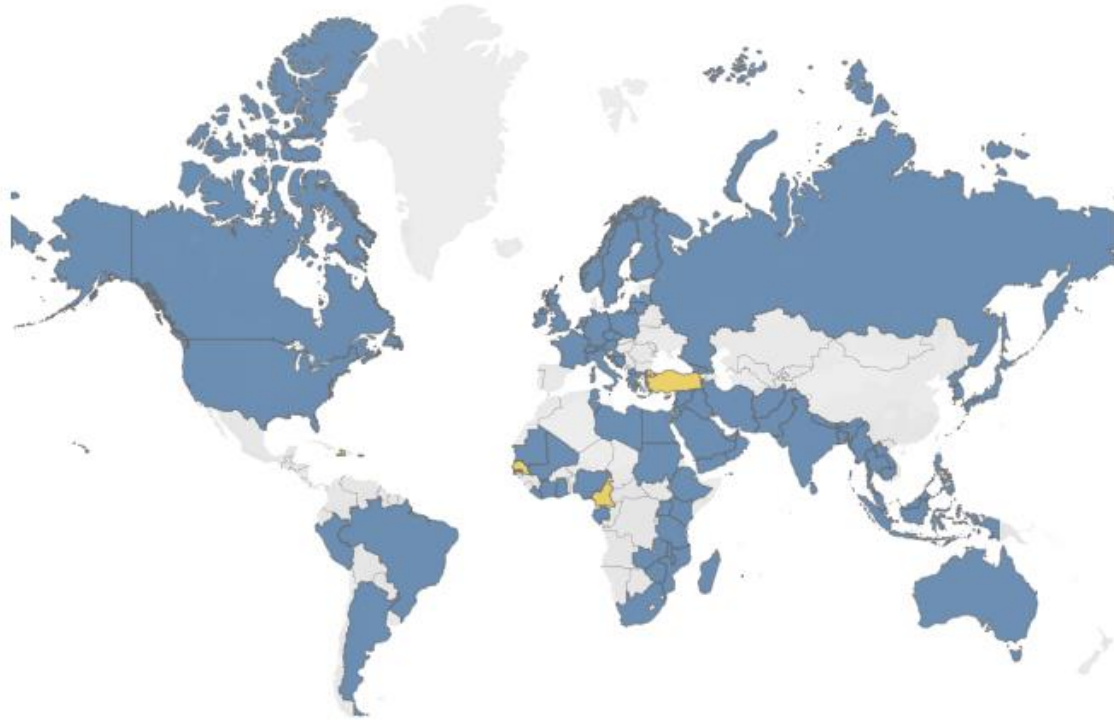
Initial focus:

Bacterial infections in humans



Countries enrolled in GLASS

85 countries and 1 area as of 3 October 2019



Core components of infection prevention and control programmes at the national and acute health care facility level



Core Component 1
IPC Programme



Core Component 2
IPC Guidelines



Core Component 3
IPC Training/Education



Core Component 4
HAI Surveillance



Core Component 5
Multimodal Strategies



Core Component 6
Monitoring, audit & feedback



Core Component 7
Workload, staffing & bed occupancy

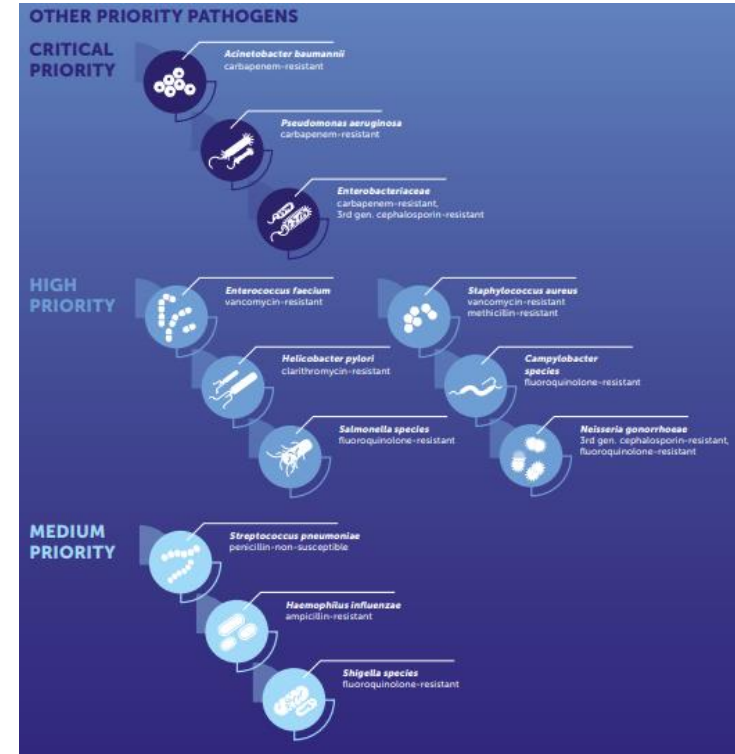


Core Component 8
Built environment, materials & equipment for IPC

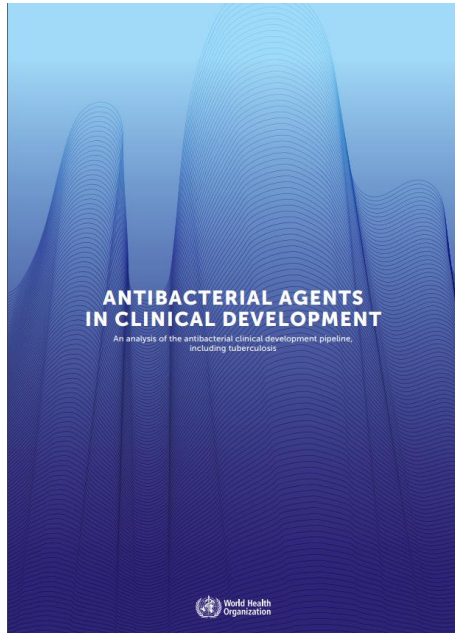
Priority pathogens for R&D

Critical needs:

- Drug-resistant TB
- Gram-negative bacteria:
 - Carbapenem-resistant *A. baumannii*
 - Carbapenem-resistant *P. aeruginosa*
 - Carbapenem-resistant and 3rd generation cephalosporin resistant *Enterobacteriaceae*



Antibacterial agents in clinical development



- **51** new antibiotics in the clinical pipeline
- **33** against priority pathogens
- **~9** are innovative
- Of **10 phase-I** antibiotics to tackle gram-negative bacteria only **1-2** will make it to market in **7 years**
- **Pipeline is insufficient to treat priority pathogens & TB**

WHO Guidelines and Resources

WHO Model List of Essential Medicines - Updated in 2017

- Added 30 medicines for adults and 25 for children
- Antibiotics now grouped into 3 categories:
 - **ACCESS** Antibiotics that should be available at all times (29 AB)
 - **WATCH** Antibiotics recommended as first- or second-choice (7 AB) treatments for a small number of infections
 - **RESERVE** Antibiotics that are last-resort options (8 AB)

AMR competency framework

To guide education and training of health workers:

- Awareness
- Appropriate use
- Infection prevention and control
- Diagnostic stewardship and surveillance

Antimicrobial resistance domains ^a	Category 1: All health workers ^b	Category 2: Prescribers ^c
<p>Appropriate use of antimicrobial agents</p> <p>Competency statement: Health worker demonstrates that they have the knowledge and understanding, according to their field and level of expertise, to facilitate optimal and safe use of antimicrobial agents for management of infections.</p>	<p>Relevance: High</p> <p>Knowledge:</p> <ol style="list-style-type: none"> 1. Understand that antimicrobials have different resistance potential (AWaRE categories). 2. Understand the specific roles of other health care workers. 3. Understand the consequences (intended and unintended) of the use of antimicrobial therapy in humans. <p>Skills:</p> <ol style="list-style-type: none"> 1. Ensure effective management of antimicrobials (according to scope of practice) in infection therapy. <p>Attitudes:</p> <ol style="list-style-type: none"> 1. Encourage patient and peer professional interactions on antimicrobial prescription and therapy. 2. Ensure timely and appropriate feedback to prescribers and other care groups. 	<p>Relevance: High</p> <p>Knowledge:</p> <ol style="list-style-type: none"> 1. Diagnosis of disease including the ability to discriminate diseases of different infectious pathology. 2. Indication for antimicrobial therapy, including assessment of the severity of the infection (sepsis syndrome recognition) to inform urgency for therapy. 3. Understand that travel, recent hospitalization or previous microbiology findings of resistant bacteria are factors that predispose to colonization/infection with a resistant pathogen. 4. Understand common drug interactions between antimicrobials and other therapeutic agents, and between antimicrobials and food. Understand their clinical significance and the strategies to avoid interactions.

Online Community of Practice (CoP)

- Access to prompt technical advice for operational challenges for which answers are not readily accessible in current guidelines
- Informal peer-to-peer discussions



The screenshot shows the website for AMR National Action Plans. The header is green with a menu icon and the text "AMR National Action Plans". Below the header is a navigation bar with links: Home, Discussions, Library, Calendar, Members, Admin.

The main content area features a banner for an "Online discussion forum for those developing and implementing national action plans to combat antimicrobial resistance (AMR)". The banner includes the World Health Organization logo on the left and a stylized graphic of two hands holding a pink ribbon on the right.

On the right side of the page, there is a section titled "Recent discussions" with three entries:

-  Kerala adopts an AMR s Africa, and cutting antibi
Breeda Hickey on Decembe
-  Development of guidanc
s.wakhusama@oie.int on D
-  Global review finds cons
Breeda Hickey on Decembe

CoP activities

- Focused discussion weeks on relevant topics:
 - What makes a good NAP?
 - Situation analysis for AMR
 - Civil society engagement
 - The role of infection prevention and control
 - Antimicrobial stewardship
 - AMR competency framework for health workers
 - Links to primary health care
- Documenting lessons from discussions
- Sub-community on health workforce education
- Library of resources
- Notifications on upcoming webinars, events, new publications
- Networking

NAP Implementation Guidance

- AMR and Multi sectoral working

<https://www.who.int/antimicrobial-resistance/publications/workingpaper1multisectoralcoordinationAMR/en/>

- AMR and Gender

<https://www.who.int/antimicrobial-resistance/national-action-plans/workingpaper5enhancingthefocusongenderandequity/en/>

- AMR and Primary Health Care

https://apps.who.int/iris/handle/10665/326454?search-result=true&query=primary+health+care&scope=&rpp=10&sort_by=score&order=desc

- AMR and Universal Health Coverage - Commentary in The Lancet

[https://doi.org/10.1016/S2214-109X\(19\)30362-6](https://doi.org/10.1016/S2214-109X(19)30362-6)

NAP Implementation Guidance

- Governance: Turning plans into action for AMR

<https://www.who.int/antimicrobialresistance/publications/Turningplansintoactionforantimicrobialresistance/en/>

- Infection Prevention and Control

<https://www.who.int/infectionprevention/publications/core-components/en/> | <http://www.who.int/infection-prevention/tools/core-components/en/>

- Surveillance

<http://apps.who.int/iris/bitstream/10665/251554/1/WHO-DGO-AMR2016.4-eng.pdf?ua=1>

- Stewardship

<http://apps.who.int/iris/bitstream/10665/251553/1/WHO-DGO-AMR-2016.3-eng.pdf?ua=1>

- Tripartite M&E Framework

<https://www.who.int/antimicrobial-resistance/global-action-plan/monitoring-evaluation/tripartite-framework/en/>

- (AMR and costing (Under development))

Tripartite Plus



- May 2018: Tripartite MoU for AMR signed
- Sep 2018: Workplan Developed
- June 2019: Tripartite Trust Fund launched
- 10 pilot countries identified globally for Tripartite+ implementation



"One Health" Approach: Tripartite Plus workplan

1. Awareness and behavioural change
2. Surveillance and monitoring of antimicrobial resistance and use
3. Fostering Research and development, access stewardship and optimized use
4. Implementation of national action plans (NAPS), optimal use and legislation
5. Monitoring and Evaluation



Monitoring global progress on AMR

Purposes

1. Review and summarize country progress in implementing key actions to address AMR
2. Encourage national-level review of country progress and help identify priorities for next steps
3. Guide follow-up actions and identify areas where assistance and support is required






Monitoring global progress on AMR



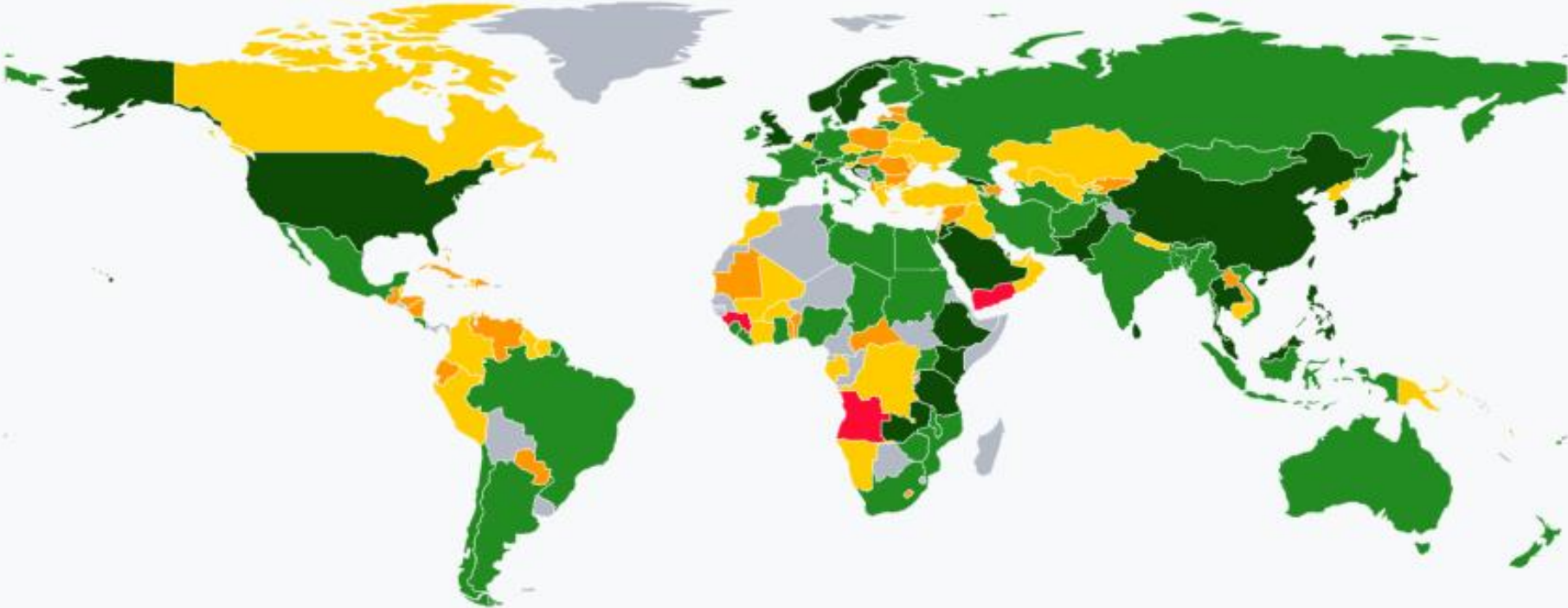
- 3rd global tri-partite self-assessment survey
- 159 out of 194 (82%) WHO Member States responded
 - Representing 92% of world population
- 50 out of 53 European Member States responded
- Report available online
- Global Database for AMR Country Self Assessment



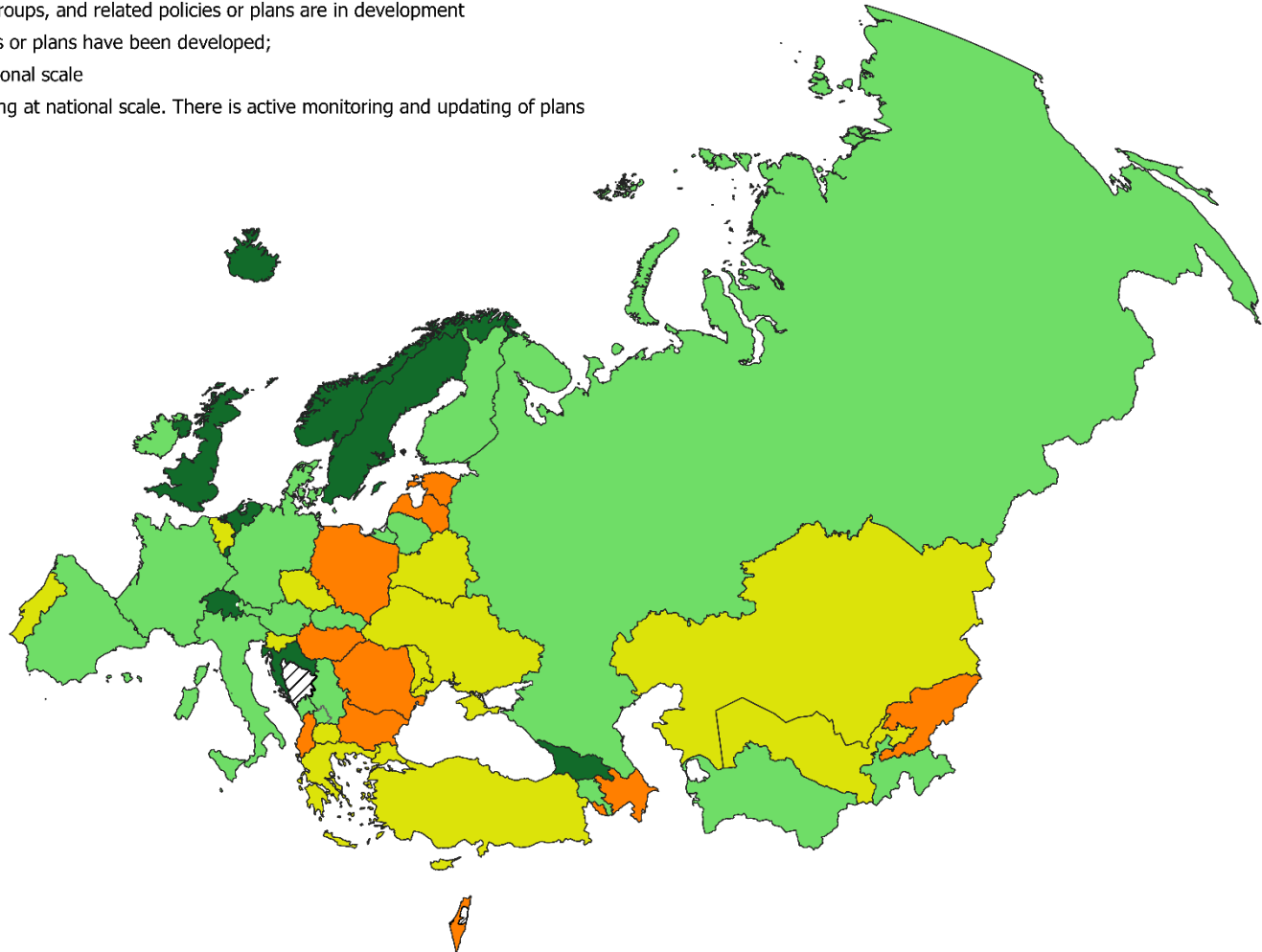
Self-assessment at country level. It closely reflects Global Action Plan on AMR

	No policies or plans in place and few or no activities underway.
	Activities have started in some places or for some target groups, and related policies or plans are in development.
	Some activities are underway at national level, and policies or plans have been developed.
	Functional implementation of policies and activities, at national scale.
	All planned activities are being implemented and functioning at national scale. There is active monitoring and updating of plans.

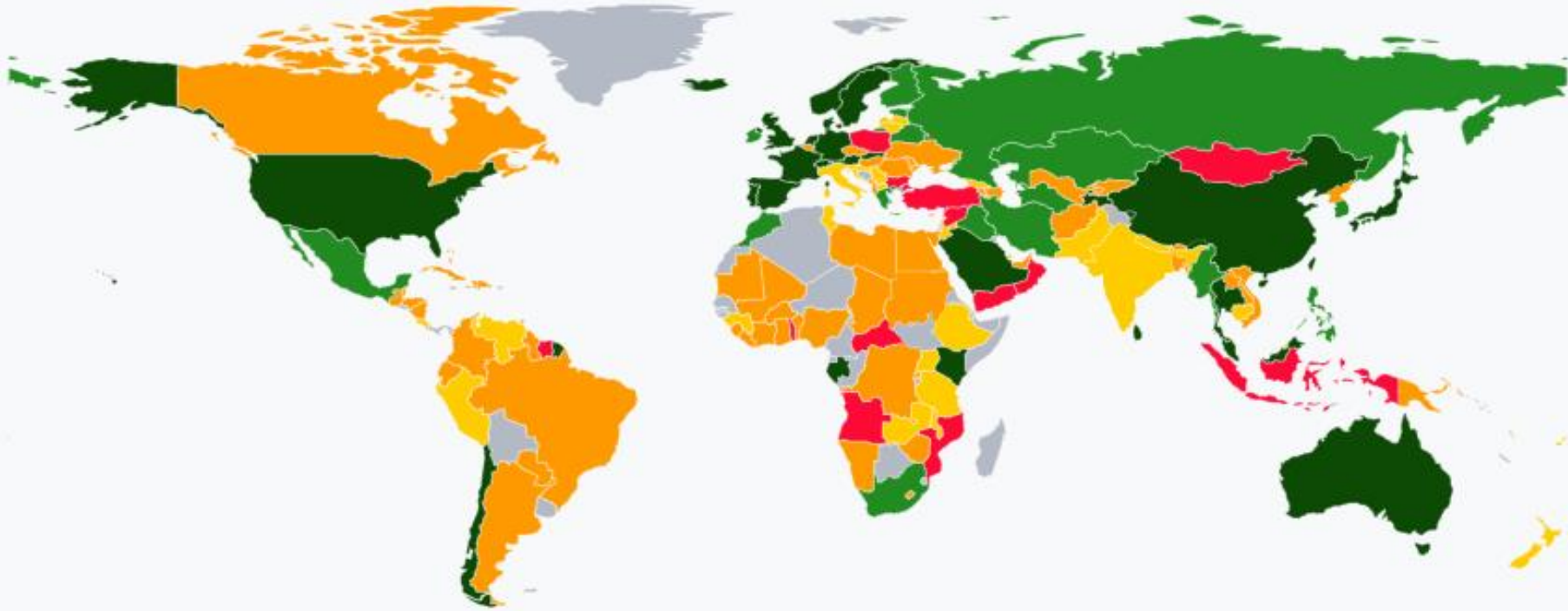
Country progress with development of NAPs



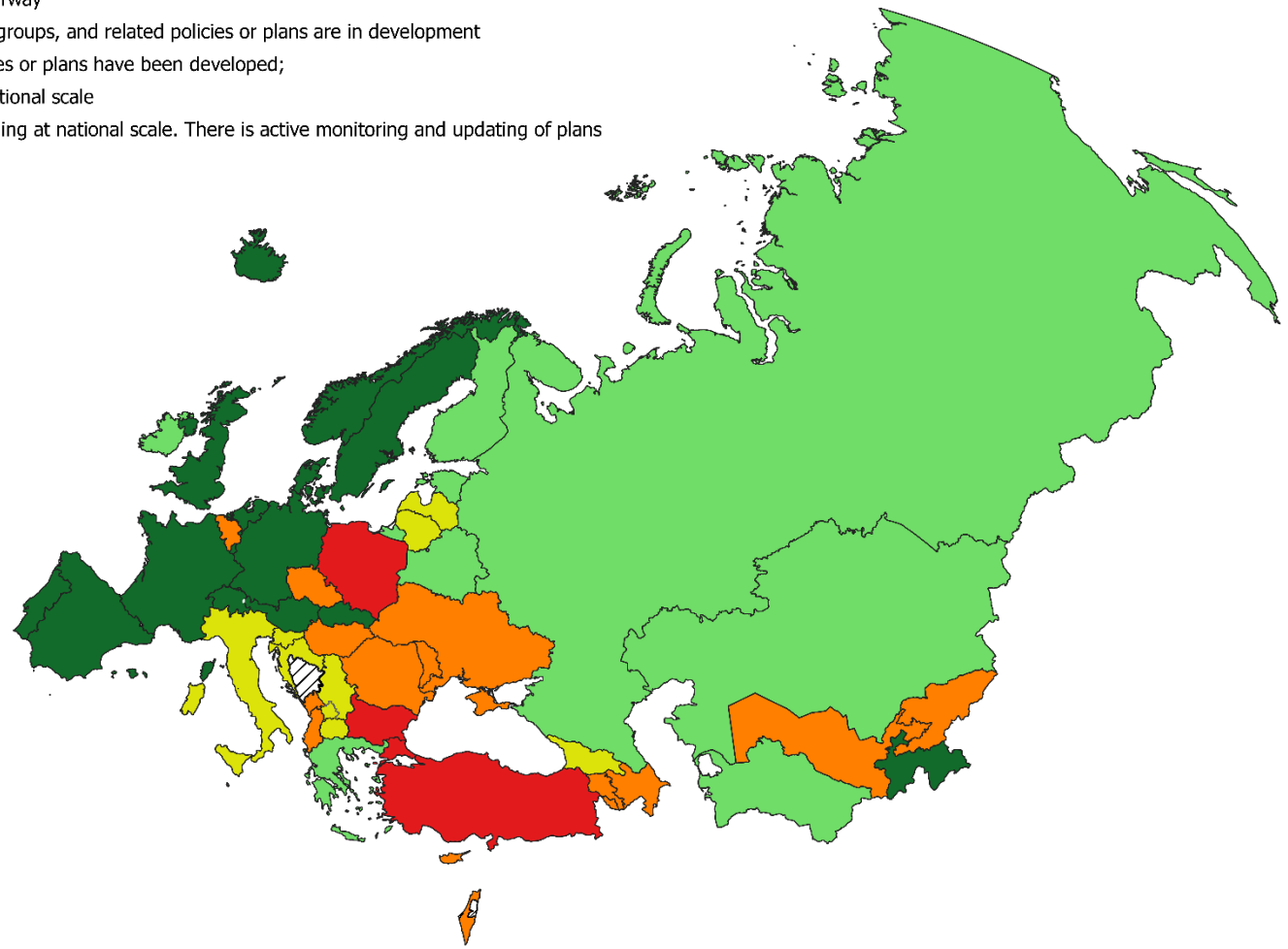
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- Not included (Liechtenstein)



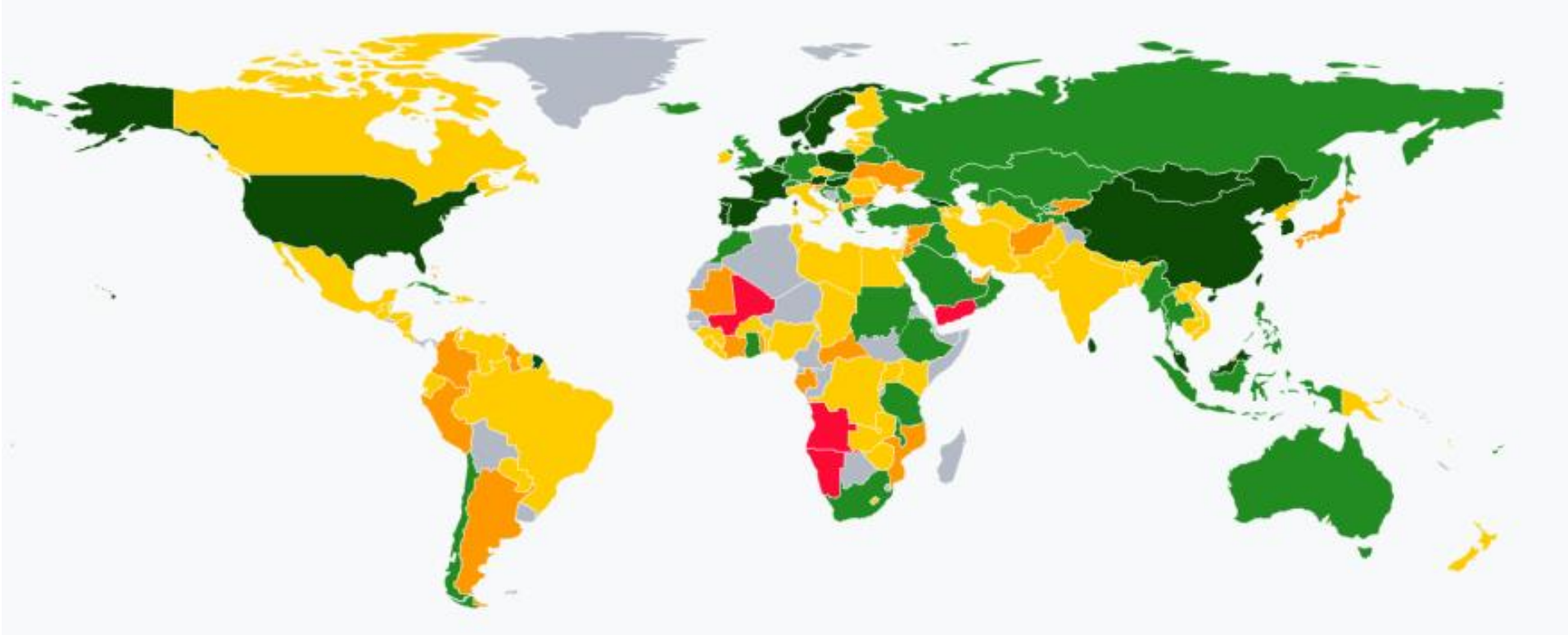
Multi-sector and One Health collaboration/coordination



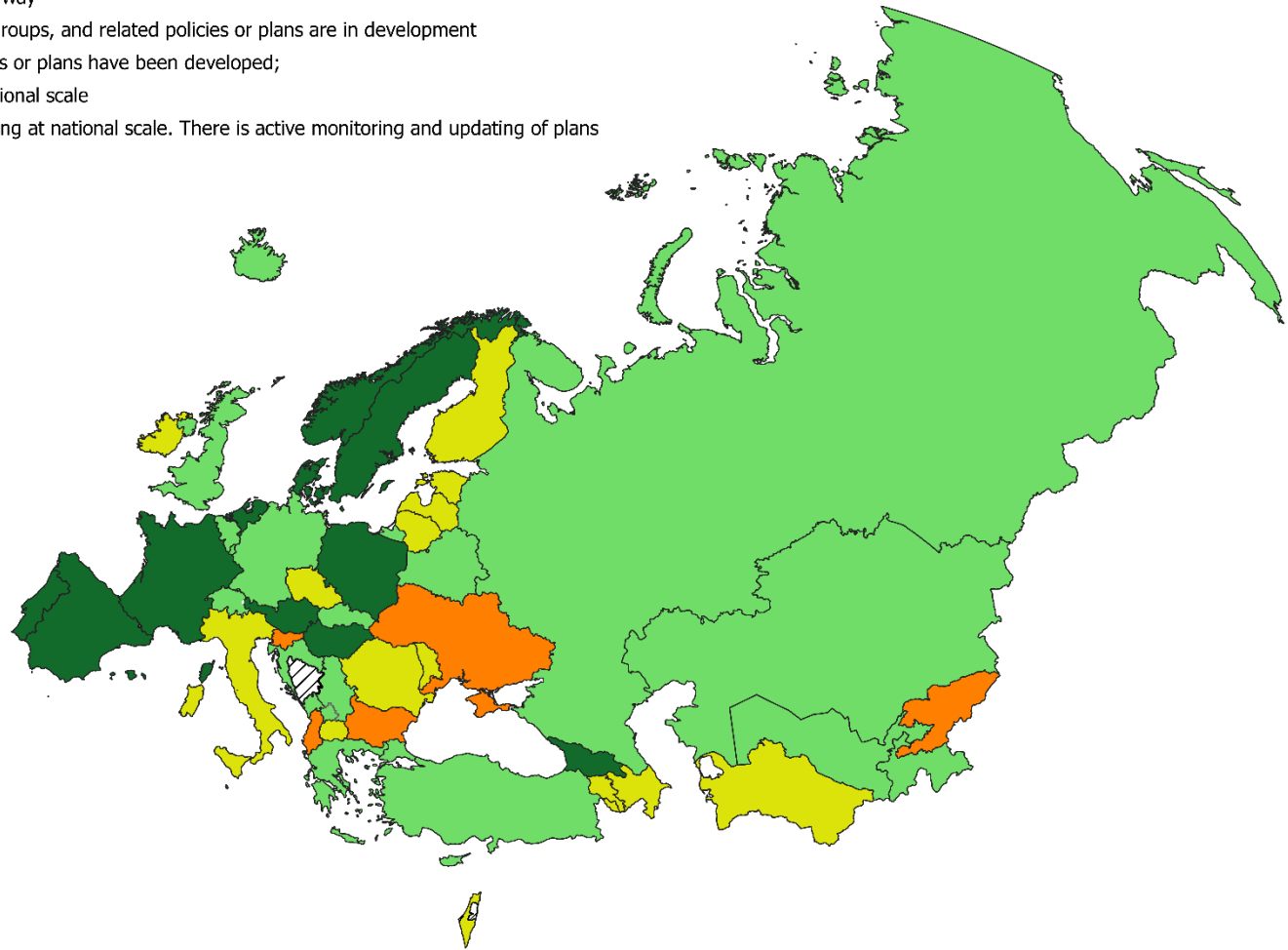
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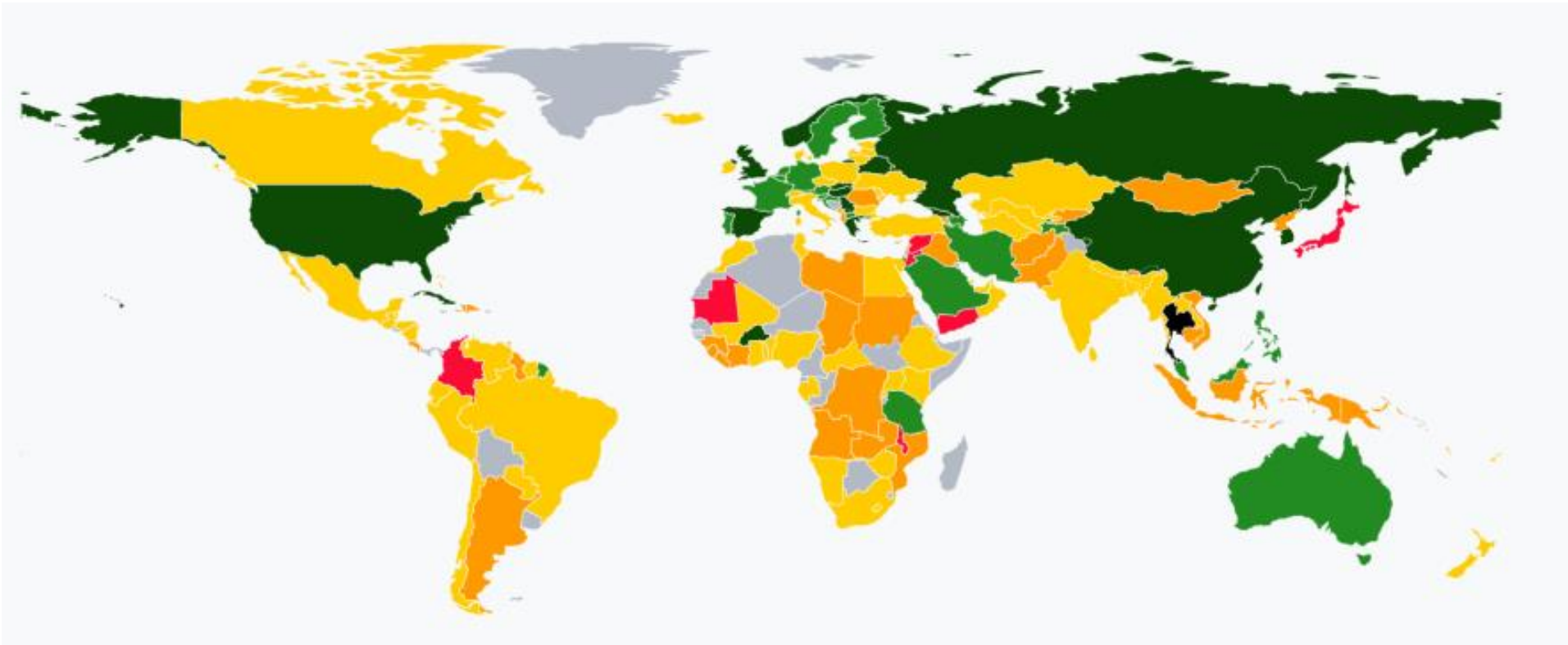
Raising awareness and understanding of AMR risks and response in human health



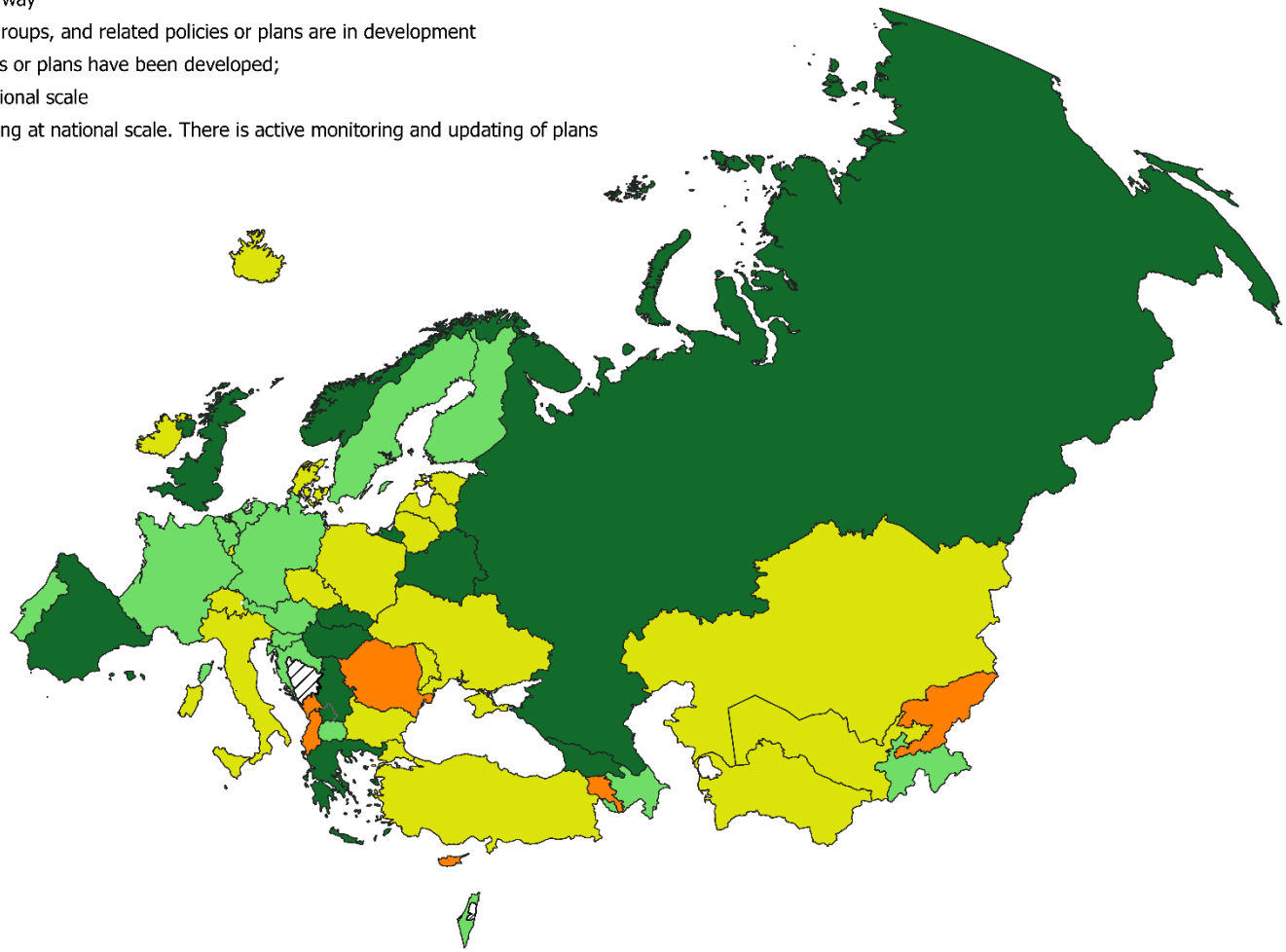
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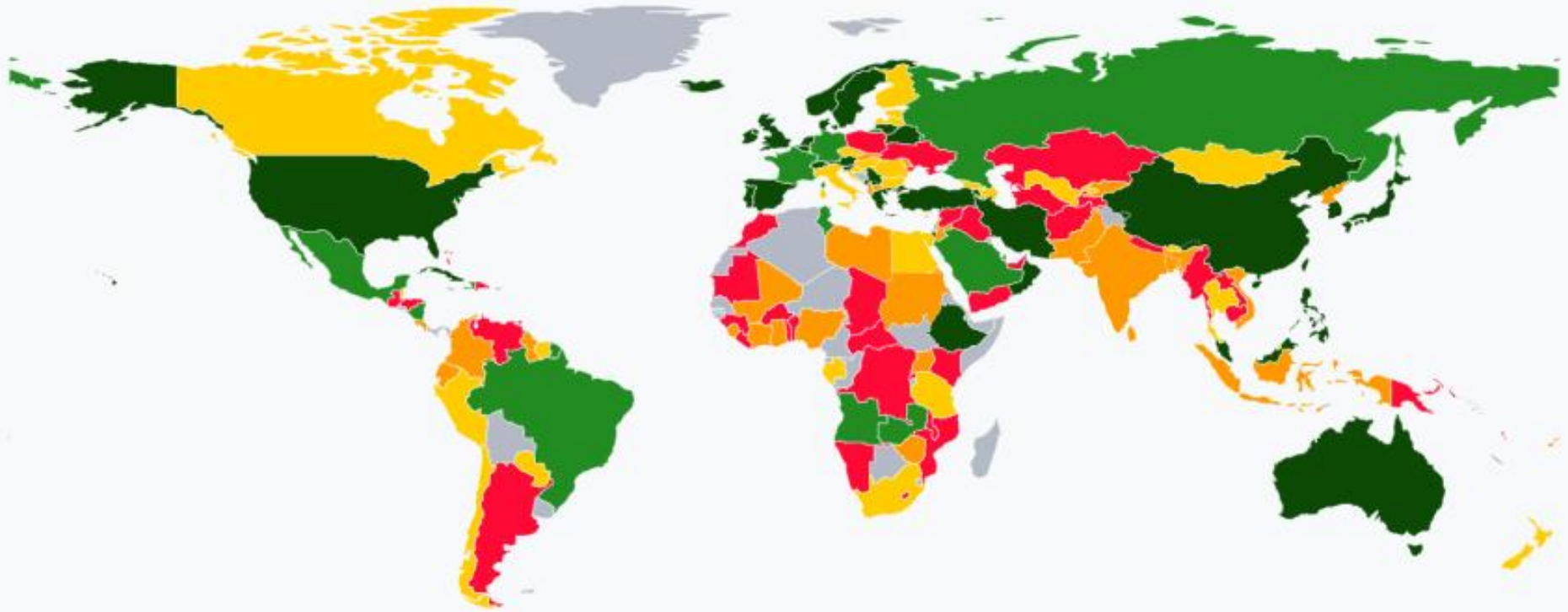
Training and professional education on AMR in the human health sector



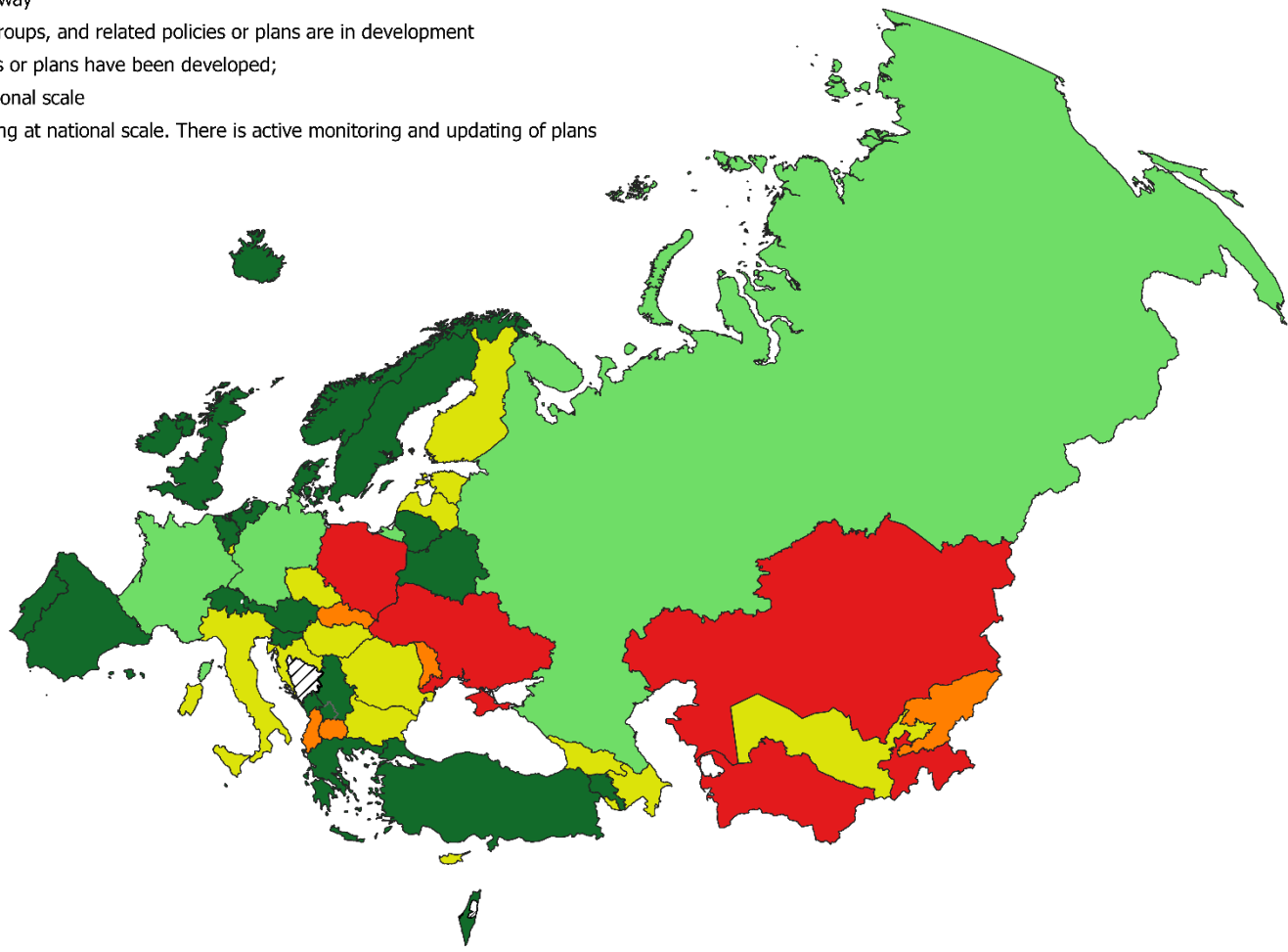
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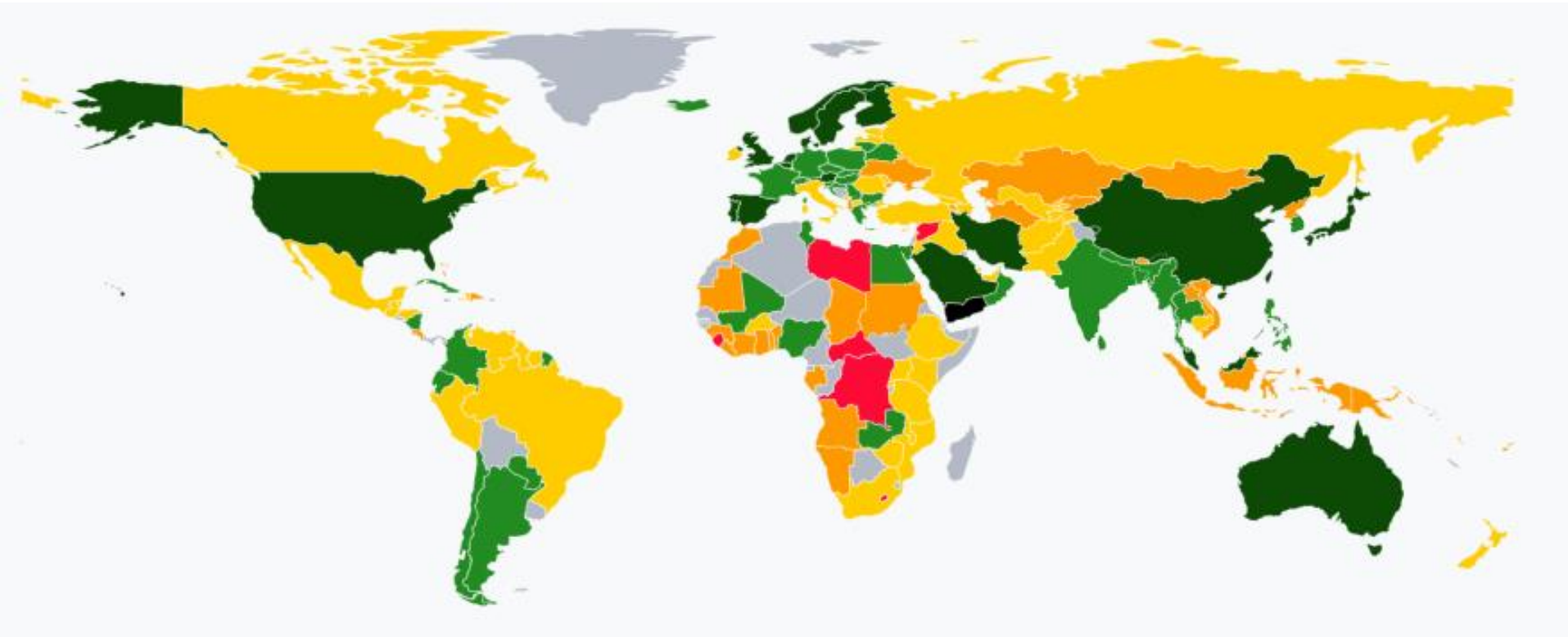
National monitoring system of surveillance of consumption in humans



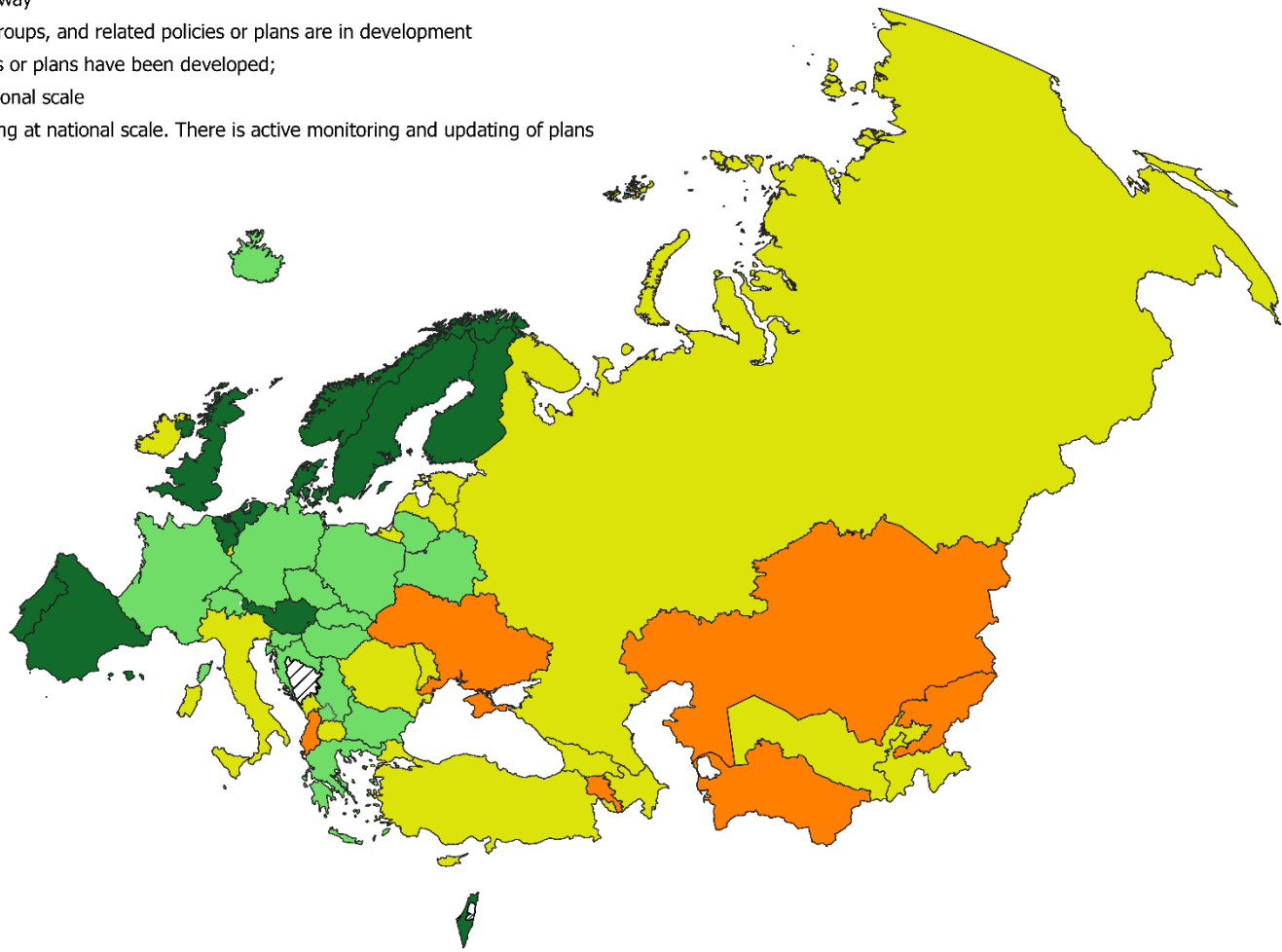
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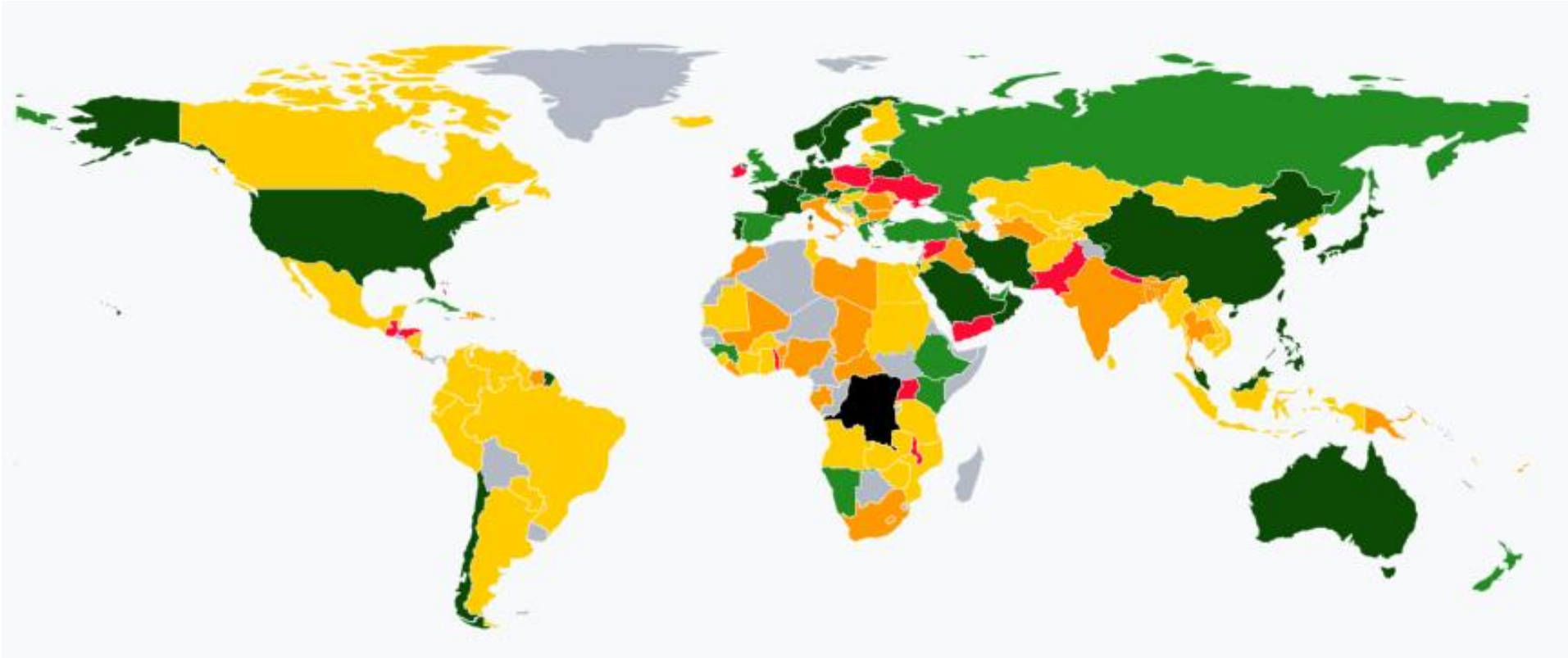
National surveillance system for AMR in humans



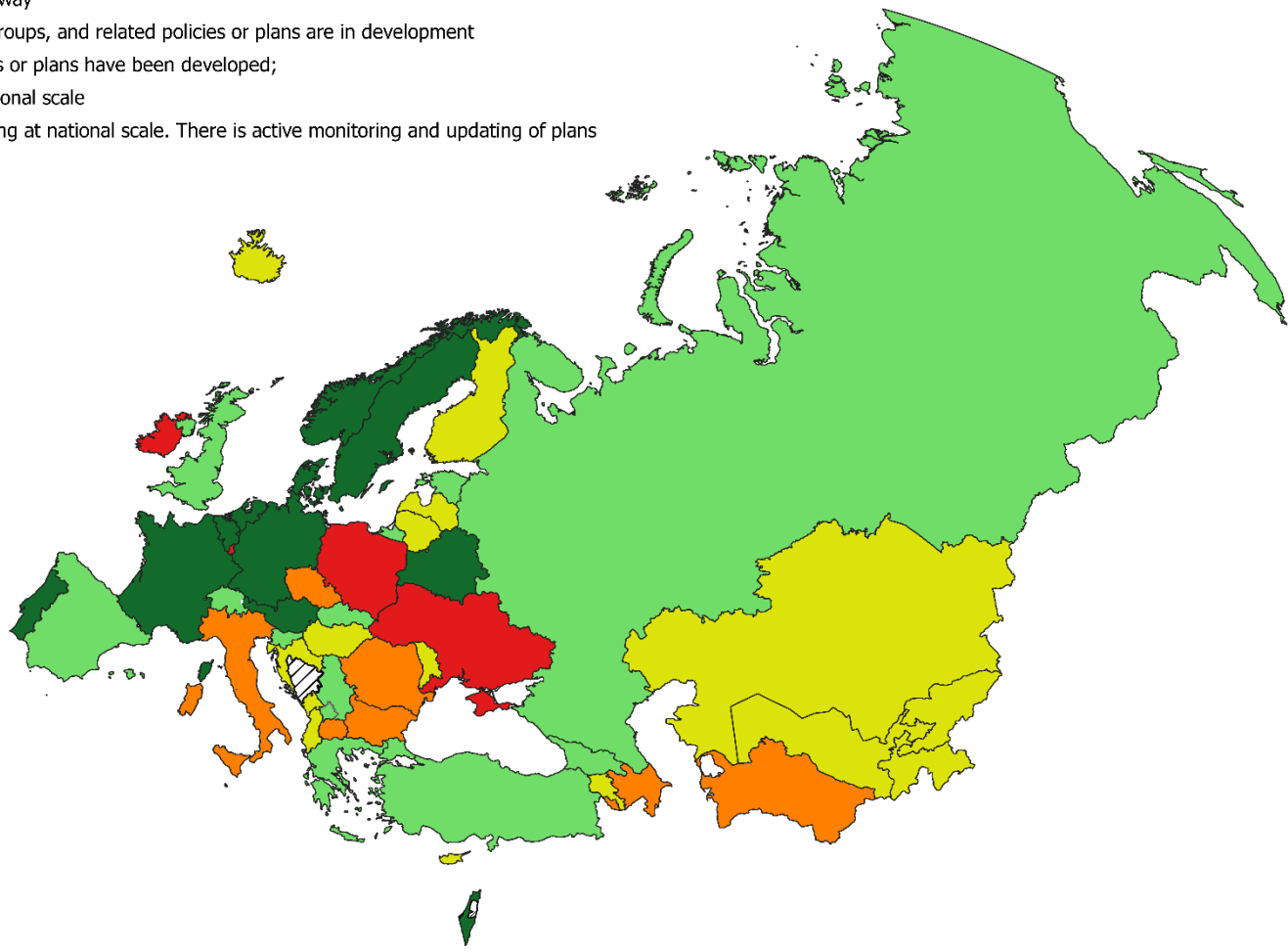
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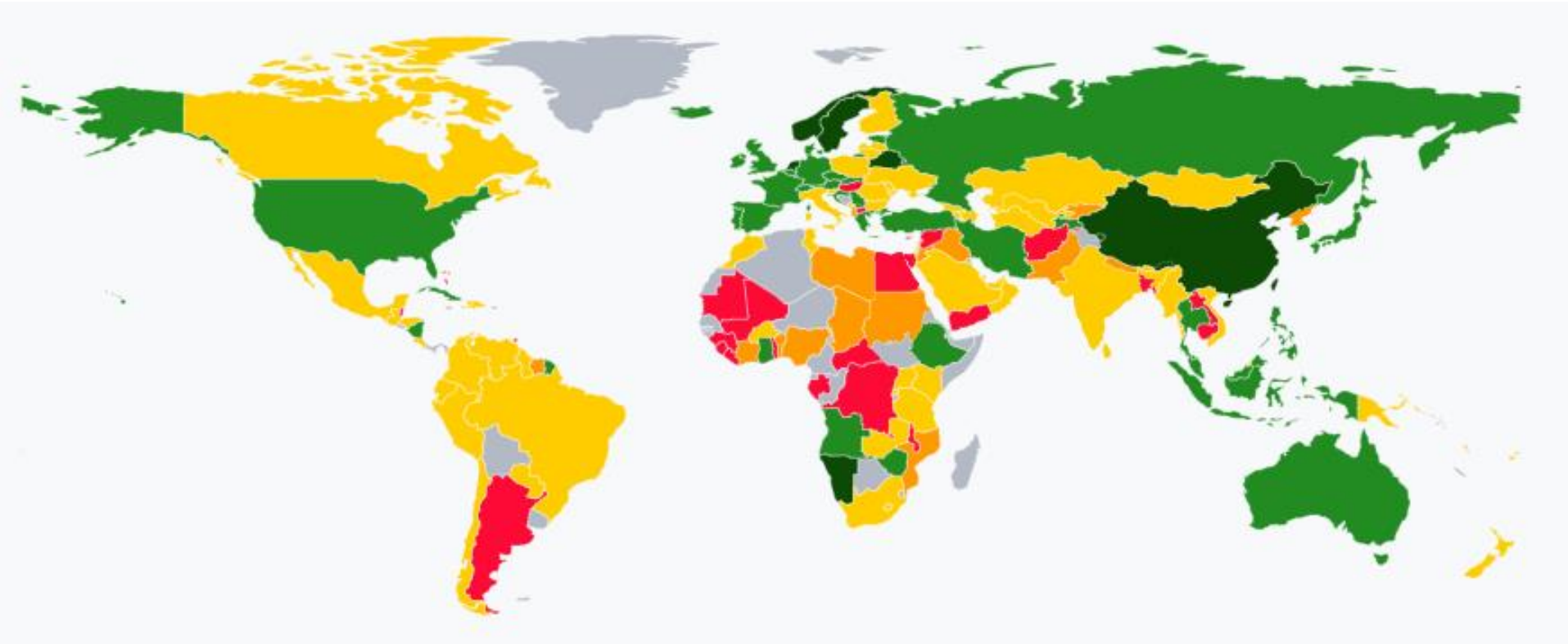
Infection Prevention and Control (IPC) in human health care










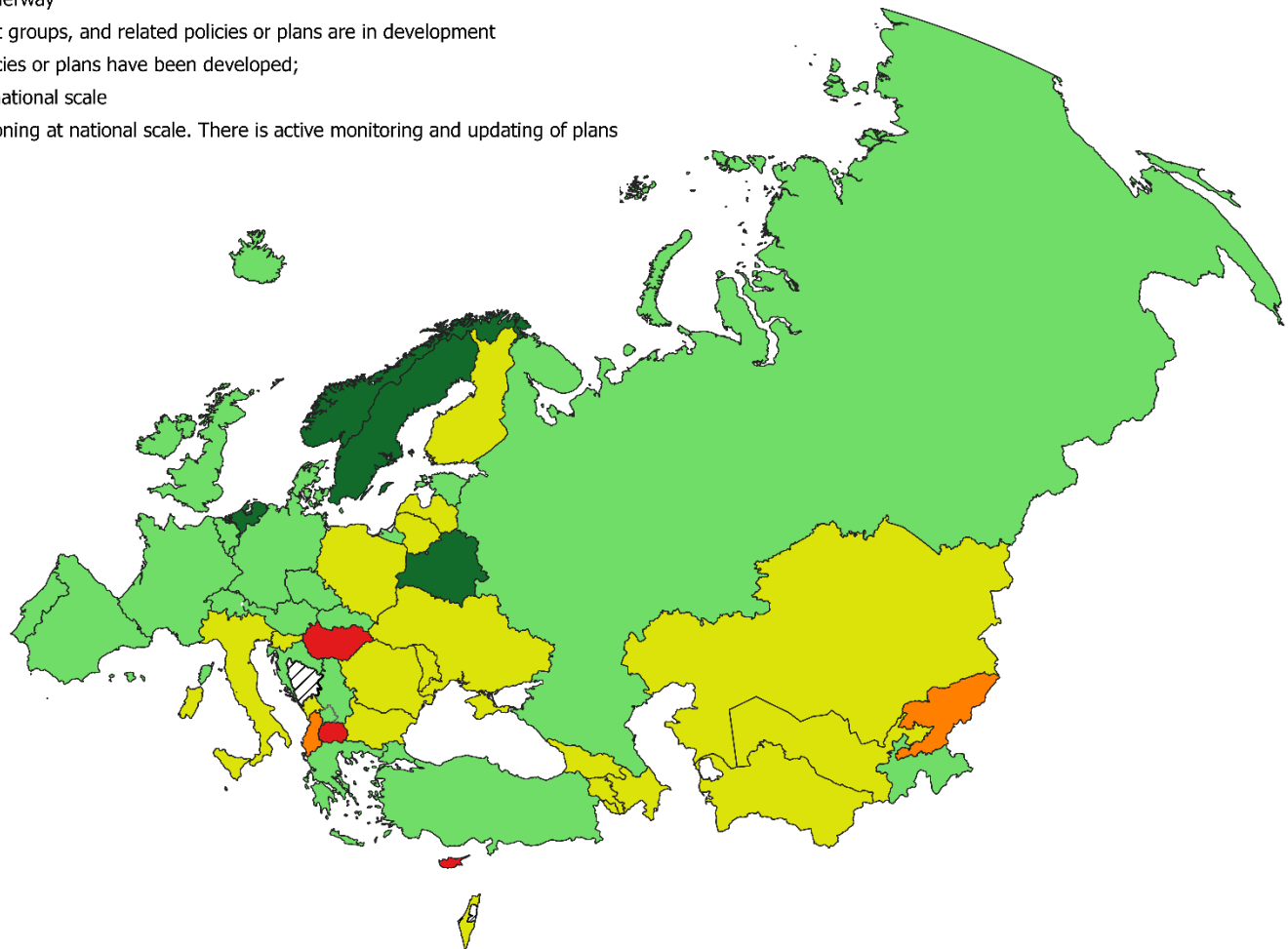
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Optimize the use of AM in human health



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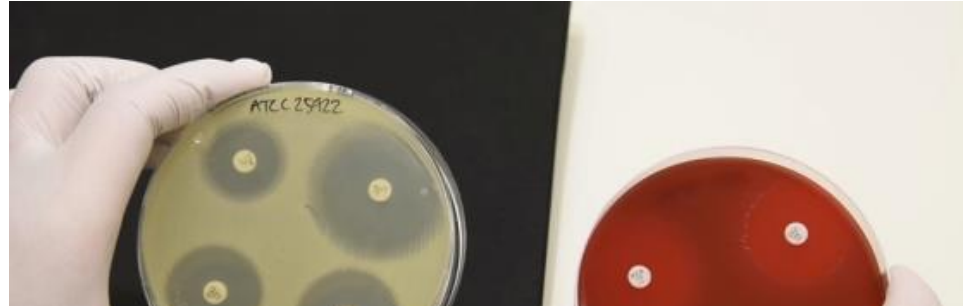
Implementation activities

- Policy support
 - National stakeholder meetings
 - Intersectoral Coordination Mechanism
 - National AMR action plans
 - Evidence-informed policy briefs
 - FAO/OIE/WHO One Health policy meetings



Implementation activities

- Resources
 - Protocols, templates, tools, videos
 - Consultants/experts
 - Webinars
 - Online courses



Antimicrobial Stewardship: A competency-based approach



Learnings



Discussions



Progress



Collab Space



Course Details



Documents



Announcements

Implementation activities

- Training/capacity building
 - Antimicrobial stewardship
 - Infection prevention and control
 - Standardized laboratory methods
 - Data management and analysis
 - Behaviour change campaigns
- Research/projects
- Surveillance network activities




Making progress

- Progressing on all strategic objectives
- Broad collaboration
 - Within WHO (Global - Regional - National)
 - With International Organizations (FAO, OIE)
 - With external partners (international, national)
 - With donors (countries, foundations)
- Supporting materials /tools developed and distributed
- Pool of experts/consultants



Conclusion

- One Health?
 - Geographical patterns
 - Key areas
 - Priority to the implementation
 - International and regional cooperation
- 

Thank you for your attention

