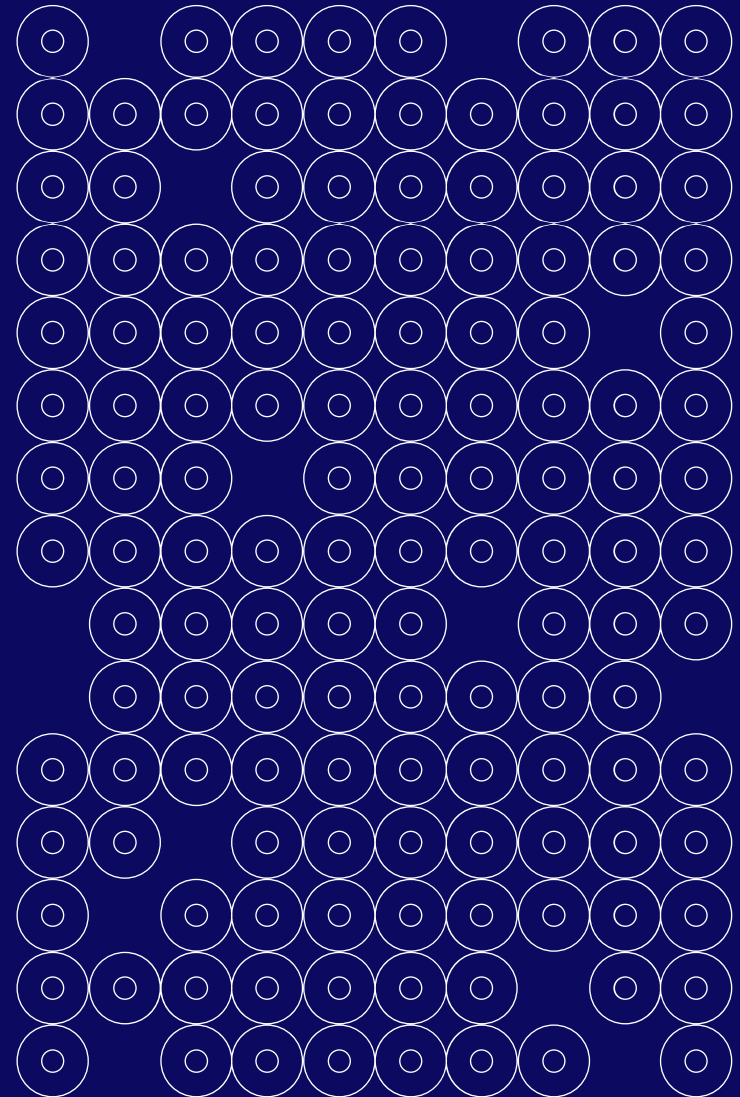


SwissCore- SWERI event, 23 April 2024

JPIAMR: evolution to the European One Health AMR partnership

Shawon Lahiri
Senior analyst
JPIAMR secretariat, Swedish Research Council



Overview of JPIAMR supported research



170 M€

Total Investment



173

Projects

129

Networks

44

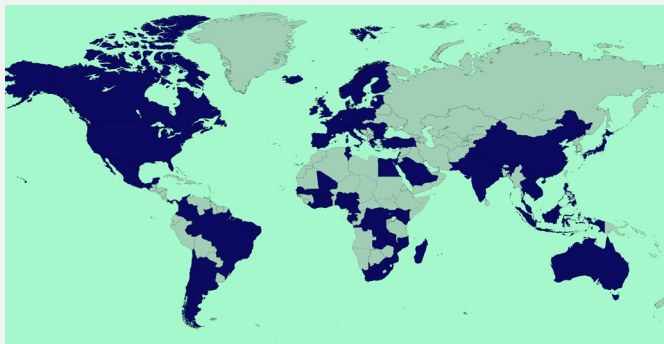


1821

> From 82 different countries

Researchers

Researcher Location



44 LMICs involved



155 researchers from LMICs



59 research project and networks with LMIC elements in their research scope

One Health perspective

55%

Projects with more than one One Health element



JPIAMR: A global One Health AMR Research Funder

Environment

- Transmission routes in environment
- Surveillance of non-human AMR reservoirs (wildlife, wastewater)



Therapeutics

- Discovery of new antimicrobials and therapeutic alternatives
- New target identification
- Repurposing of drugs



Surveillance

- Improvement of Surveillance tools and technologies
- Standardisation of methods



Diagnostics

- New rapid diagnostics and point-of-care techniques
- AMR detection in multiple reservoirs



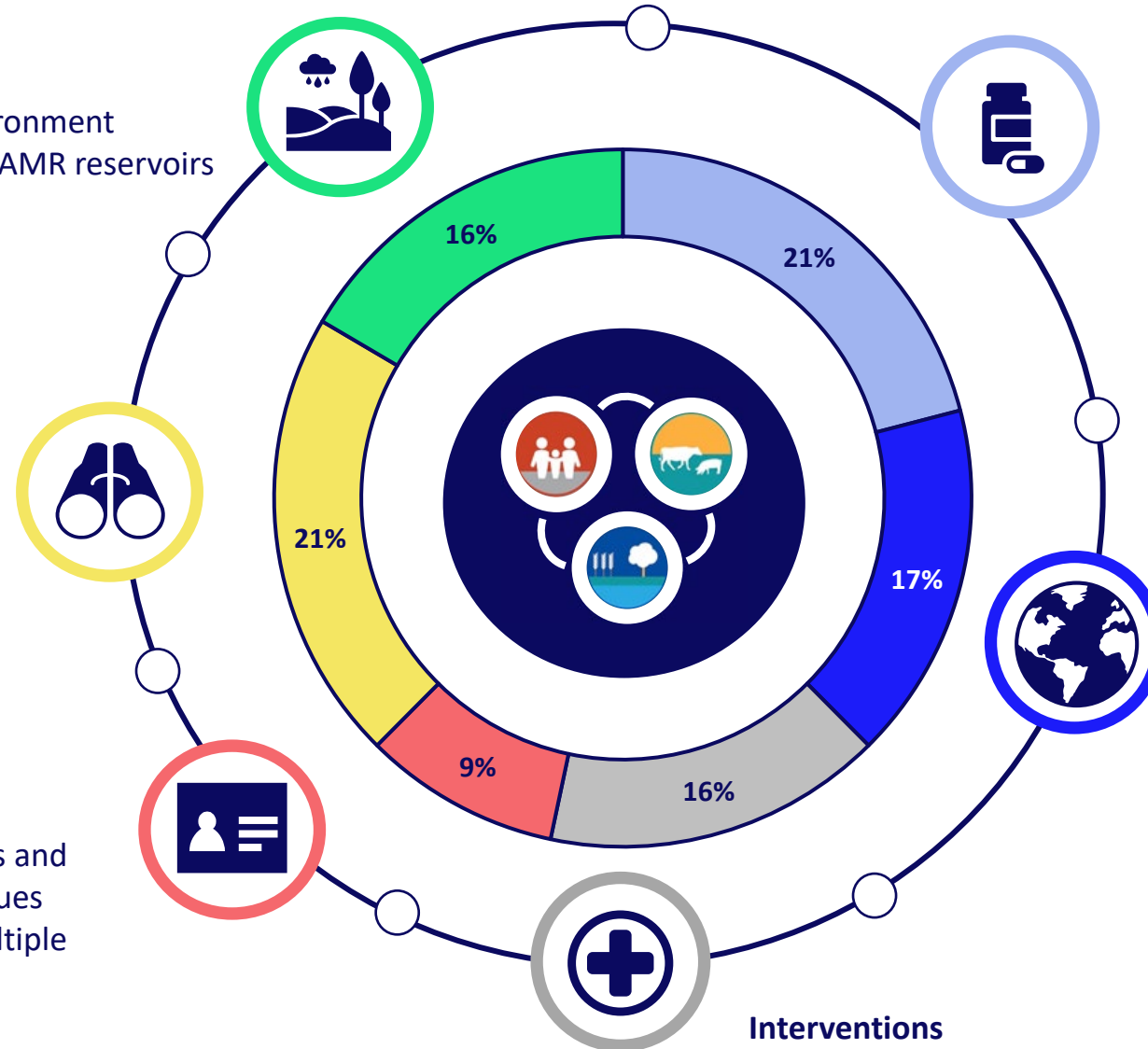
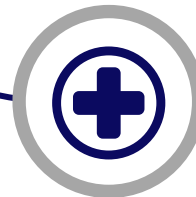
Transmission

- Transmission mechanisms and routes
- Strategies to inhibit or reduce AMR transmission
- Risk assessment

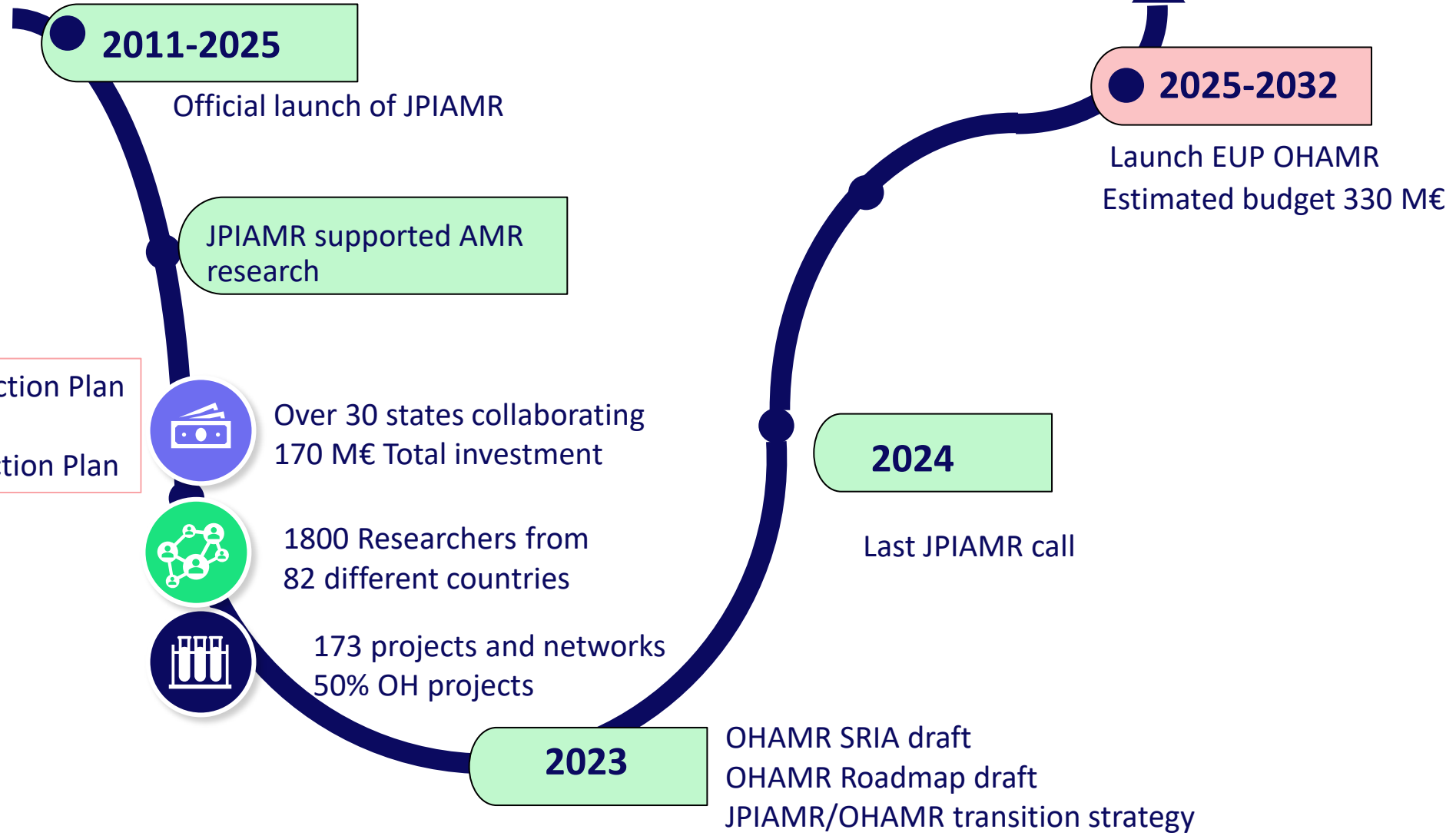


Interventions

- Interventions for infection prevention and control measures



Evolution



AMR – a high priority for the EU since 2001

- 2001: [Community Strategy against AMR](#)
- 2011: [Action plan against the rising threats from AMR](#)
- **2017: [EU One Health Action Plan against AMR](#)**
- 2019: [Regulations on veterinary medicines and medicated feed](#)
- 2020: [Farm to Fork Strategy](#)
- 2020: [Pharmaceutical Strategy for Europe](#)
- **2020: [European Health Union](#)**
- 2022: [Veterinary Medicinal Products](#)
- **2022: [Global Health Strategy](#)**
- **2023: [Reform of the EU Pharmaceutical legislation](#)**
- **2023: [Council Recommendation on stepping up EU actions to combat AMR in a One Health approach](#)**

2023 Council Recommendation on AMR with OH approach (OJ- 2023/C 220/01)

Builds on and completes 2017 European Action Plan against AMR

Provide recommendations to the Commission and to Member States in order to maximize synergies and to attain a strong and effective response against AMR across the EU.

Strengthen One Health national action plans on AMR

Reinforce surveillance and monitoring of AMR and antimicrobial consumption

Strengthen infection prevention and control

Strengthen antimicrobial stewardship and prudent use of antimicrobials

Recommend targets for AMR and antimicrobial consumption in human health

Improve awareness, education and training

Foster research & development, and incentives for innovation and access to antimicrobials and other AMR medical countermeasures

Increase cooperation

Enhance global actions

Horizon Europe - European Partnership OH AMR

- **Contribute** to the **One Health Action Plan against** and **Council Recommendation on OH AMR and SDGs**
- Allow **coordinating, aligning of activities and funding among countries in the EU and beyond**, facilitating national coherence between different services/ministries with responsibility for the various aspects of AMR (partnership open to all EU Member States as well as countries associated to Horizon Europe, and remains open to third countries wishing to join).
- Further structure the **European Research Area (ERA)** by **widening participation**
- Strengthen **global cooperation** and coordination for a broad geographical coverage, **beyond Europe**
- Bring together different stakeholders and **create a critical mass of resources to implement a Strategic Research and Innovation Agenda (SRIA)**
- Integrate key actors for AMR in **One Health approach**, encompassing the field of **human, veterinary and environmental disciplines**
- Address **understanding (e.g. transmission and evolution), prevention, monitoring, surveillance, detection, treatment of AMR**

Horizon Europe - European Partnership OH AMR – open call



Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

Regi

HOME SEARCH FUNDING & TENDERS HOW TO PARTICIPATE PROJECTS & RESULTS WORK AS AN EXPERT SUPPORT

European Partnership: One Health Anti-Microbial Resistance

HORIZON-HLTH-2024-DISEASE-09-01

Topic Call for proposal

Internal navigation

General information

Topic description

Destination

Conditions and documents

Partner search announcements

Start submission

General information

Programme

Horizon Europe Framework Programme (HORIZON)

€ Budget overview

Call

Partnerships in Health (2024) (HORIZON-HLTH-2024-DISEASE-09)

Type of action

HORIZON-COFUND HORIZON Programme Cofund Actions

Type of MGA

HORIZON Action Grant Budget-Based [HORIZON-AG]

Forthcoming

Deadline model

single-stage

Planned opening date

25 April 2024

Deadline date

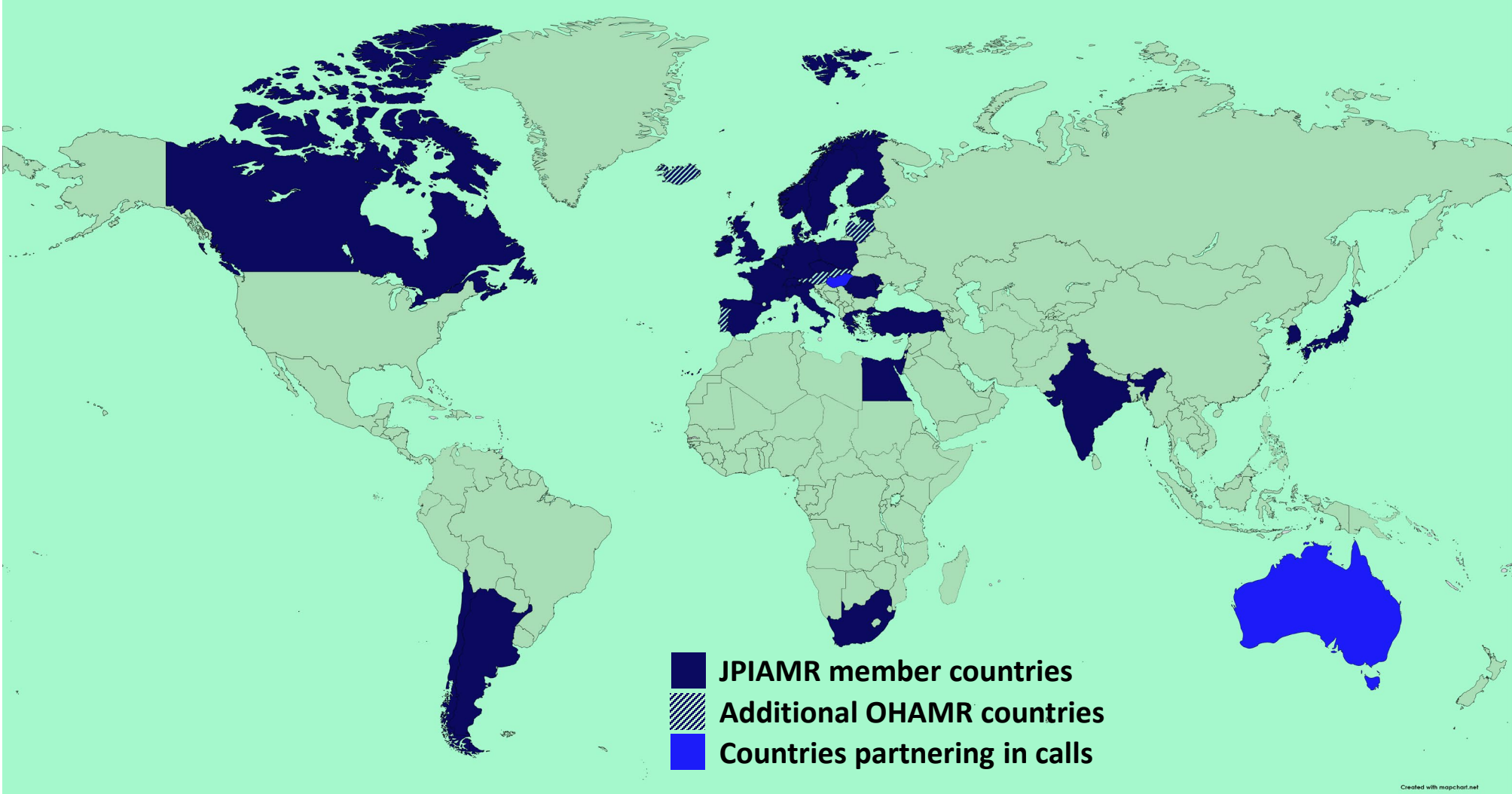
25 September 2024 17:00:00 Brussels time

Towards the One Health AMR Partnership (OHAMR)

- Form: European Co-funded Partnership
- Lead EC: Directorate-General for Research and Innovation (DG RTD)
- Lead MS: Sweden – Swedish Research Council
- Lead Entity: CSA “DESIGN OH AMR” with support from JPIAMR
- Partnership Partners:
 - Research funding agencies
 - In association with other key actors: ministries, international AMR policy bodies, international AMR funders, international AMR initiatives, stakeholders, other relevant European Partnerships
- Definition: *“A joint research and innovation programme agreed between MS research funders with co-funding from the EU.”*
- Launch: 2025
- Estimated budget: 330Meur (from which EC contribution 100Meur)

Uniting 29 member and 4 partner countries to address AMR

JPIAMR and OHAMR countries



Scope of the OHAMR partnership (2025-2032)

- The Partnership should build on, be complementary to and **go beyond the existing initiative JPIAMR**
- Create a **structured ecosystem to close the current gaps and break existing silos on AMR** in accordance with the European **OH Action Plan against AMR**
- Integrate key actors for AMR in **One Health approach**, encompassing the field of **human, veterinary and environmental disciplines**, and the **broad spectrum of pathogens** and include **socio-economic aspects**
- Strengthen the EU as an internationally recognised actor for OH AMR substantially **contributing to global cooperation** and coordination by expanding beyond Europe
- Contribute to a knowledge framework **integrating the EU, national/regional data and information infrastructures** to improve transnational research
- **Boost research, development and innovation** within **prevention and treatment** of infectious diseases affected by AMR, **surveillance, diagnosis, and control of the spread of resistant microorganisms**, and facilitating the implementation of knowledge that helps **reducing the burden of AMR**
- **Pool the necessary financial resources** from the participating national (or regional) research programmes with a view to **implementing joint calls for transnational proposals**.

OHAMR Vision & Mission

Vision:

- Reduce the burden of AMR

Mission:

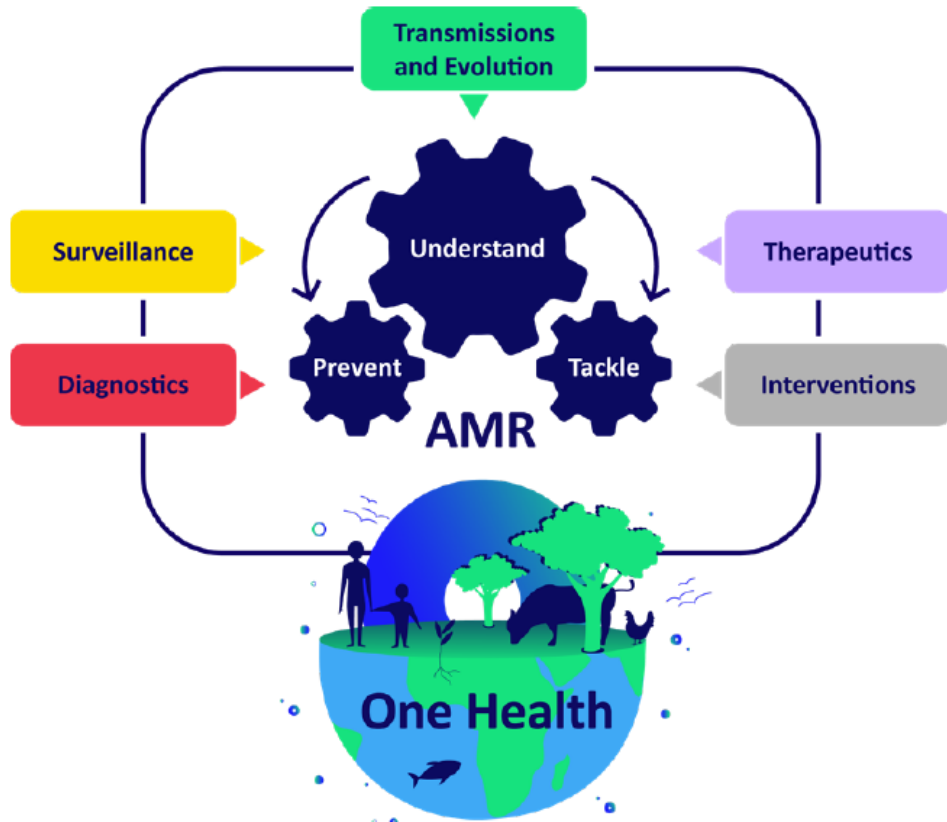
- To boost One Health research and innovation leading to improved surveillance, better diagnostics and effective treatment of infections and to prevention measures reducing the use of antimicrobials and spread of AMR.

Specific objectives:

- Enhance European and global synergy, multi-sectoral and multidisciplinary collaboration, and alignment of strategic OHAMR R&I and policies to break silos;
- Boost AMR research & innovation to generate knowledge and develop solutions to prevent and tackle AMR;
- Facilitate knowledge valorisation of research and innovation into products, policy and practice.

OHAMR Strategic Research and Innovation Agenda (SRIA)

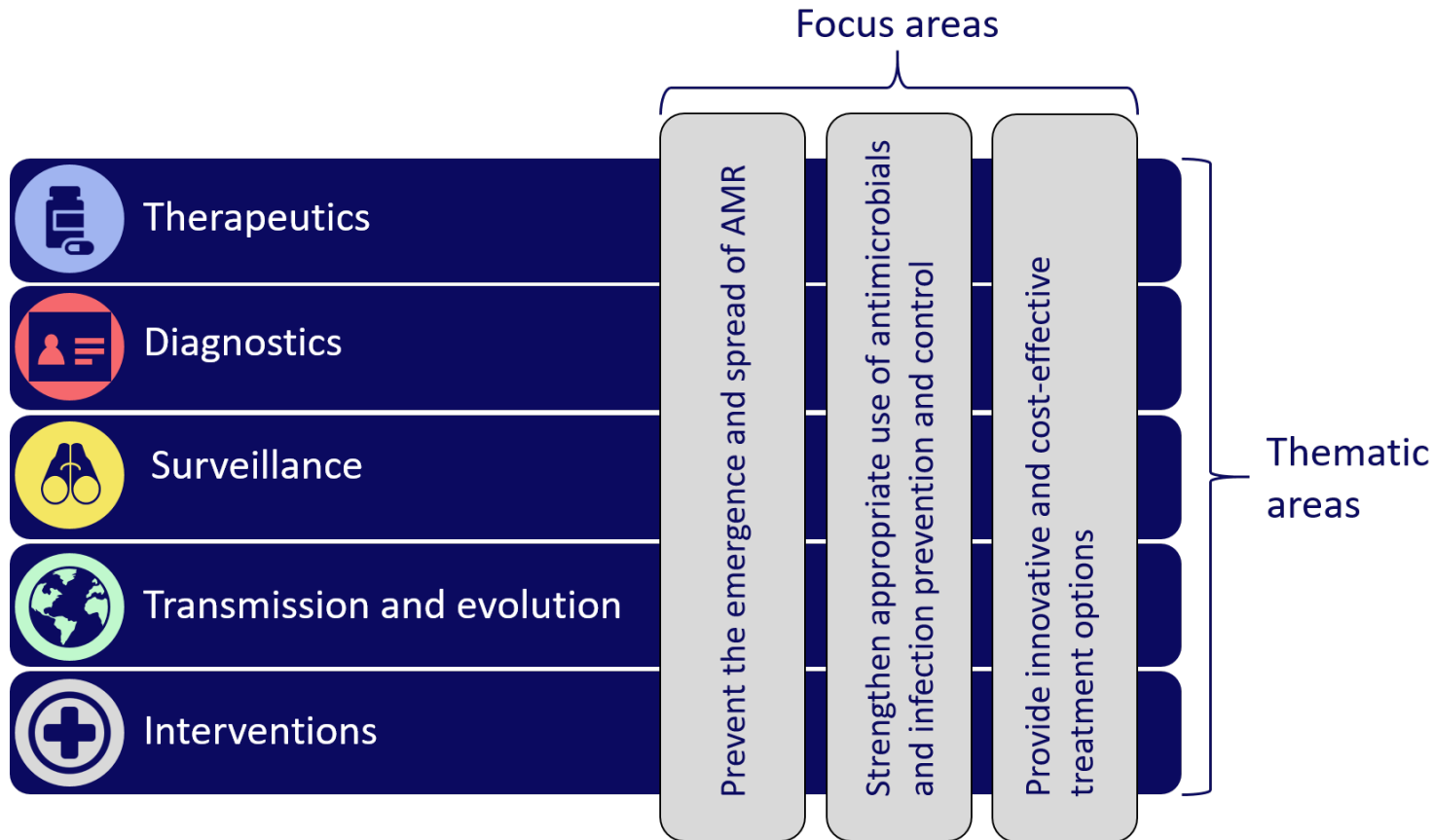
- Five thematic areas and four cross-cutting themes with identified R&I objectives.



The "One Health approach" in the partnership will focus on better understanding how the use of antimicrobials and the spread of resistant microorganisms and resistance determinants in and/or between humans, animals and the environment contribute to the emergence and spread of AMR in humans and to its health consequences, and which interventions are effective to control AMR.



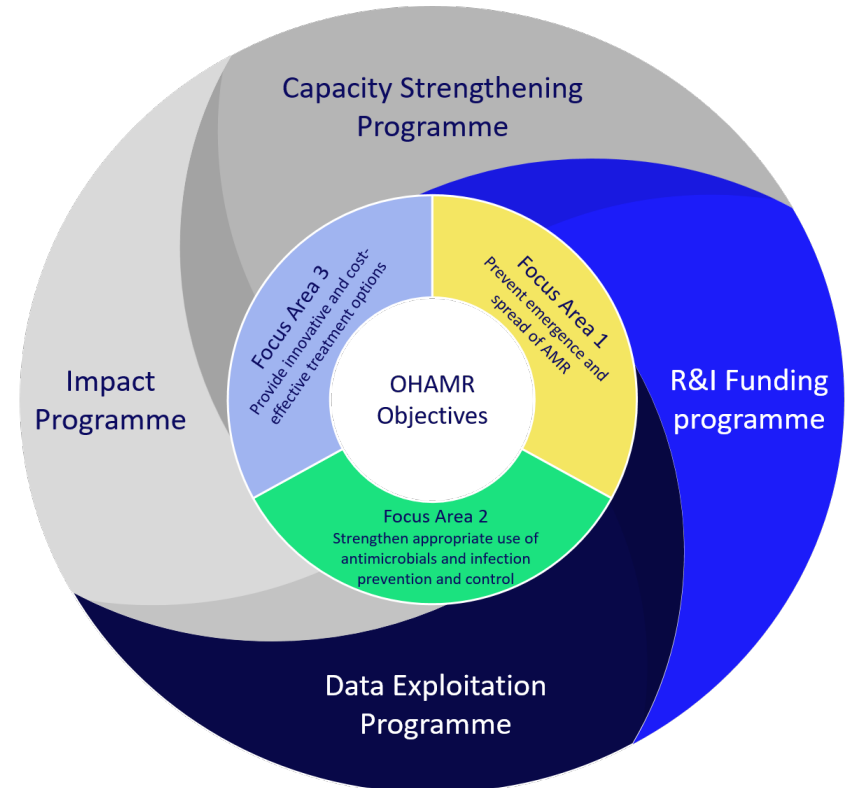
Focus areas for R&I in the OHAMR



- Cross-thematic
- Challenge-driven and impactful
- One Health approach
- Interdisciplinary

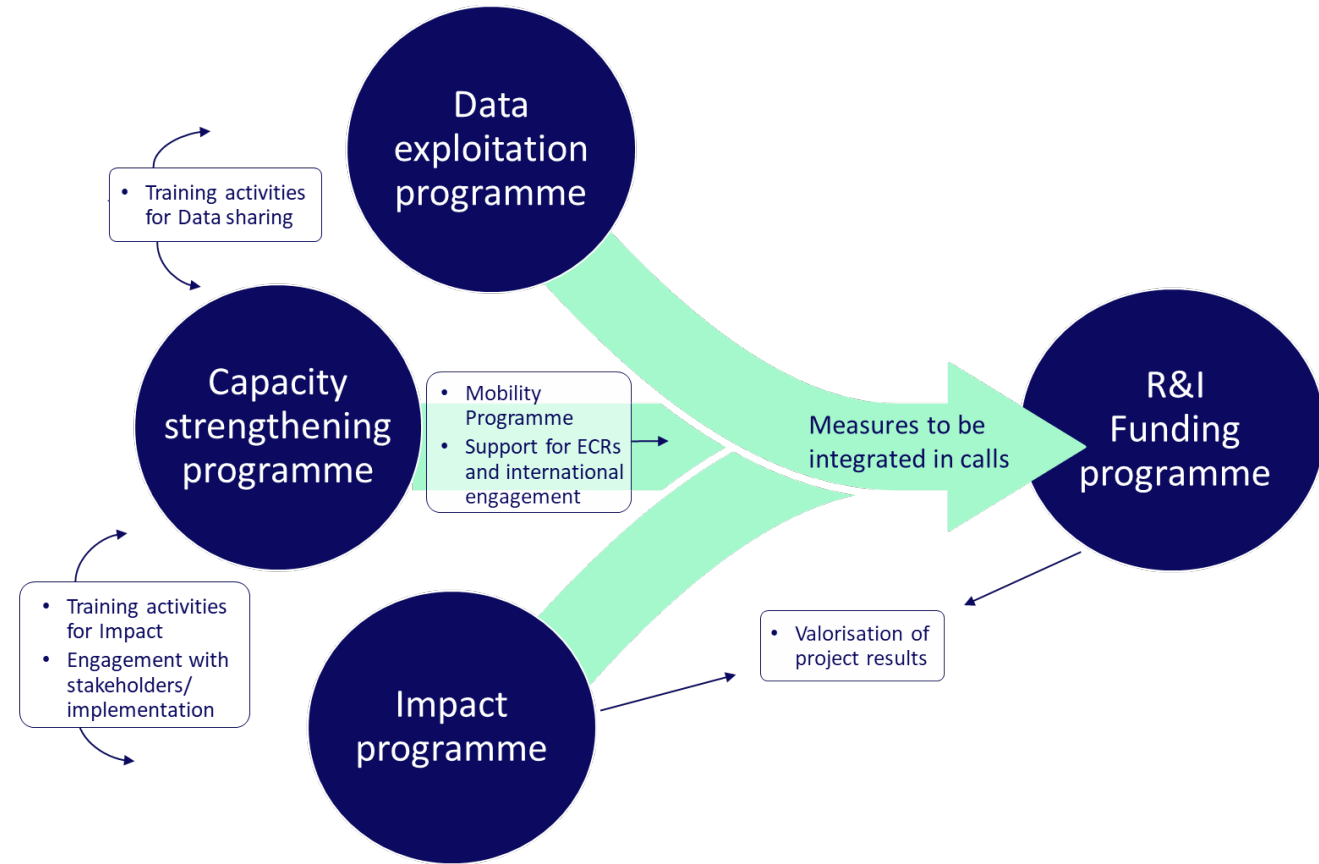
Overarching programmes of the OHAMR

- **The R&I Funding programme:** to support financially AMR R&I through calls
- **The Capacity Strengthening Programme:** to support training, networking and collaboration across disciplines, sectors, countries and career stages
- **The Data Exploitation Programme:** to facilitate and promote access, sharing and (re) use of data and research infrastructure
- **The Impact Programme:** for knowledge mobilisation, to facilitate uptake of research results into products, practice and policy for maximum societal impact.



Implementation

- An **Annual Work Programme** will be drafted each year with detailed descriptions of the actions
- Each AWP is foreseen to adress one focus area
- The actions will include:
 - **Joint transnational calls**, including measures to promote capacity, impact and data exploitation
 - **Additional activities** implemented by the respective programmes



The connections and cooperation areas of the OHAMR programmes

Data Exploitation Programme

A dedicated programme to promote that data*:

- are optimally used and produced in the OH-AMR research domain
- reusable and stay available for future research following the FAIR principles

To identify the needs, barriers and solutions for availability, interoperability and reusability of AMR data resources and existing research infrastructure across OH sectors;

To develop an operational structure and framework to support researchers and data stewards to produce FAIR data and facilitate different type of users' access to AMR data and information;

To demonstrate how the produced (meta)data can be (re)used to tackle AMR research, policy or public health issues with a One Health approach.

Data Exploitation Programme

Facilitate access to AMR research resource platforms and enable sharing and (re)use of FAIR data

To realise the goals of the programme the following actions will be undertaken:

- Engage the AMR community to identify the needs, resources and use of data in OH sectors to facilitate data harmonisation and interoperability. *(mapping relevant resources for AMR research, including large datasets and sample collections, data models, research infrastructures)*
- Engage the AMR community to identify the needs of use of AI based approaches including data mining and machine learning for advanced data analytics and insights on accelerating drug discovery, improving infection diagnosis and antibiotic prescription, and AMR surveillance for predicting disease outbreaks.
- Contact, liaise and collaborate with relevant infrastructures active in the EU and beyond to promote use and re-use of existing resources in the field of AMR. *(collaborations with EOSC, Elixir, GO FAIR, Health-RI, etc.)*
- Develop data FAIRification framework so that data in the AMR research domain will be optimally produced, and made available for (re-)use for human and machine.
- Exploitation of the (meta)data to support AMR data use and reuse for policy and practice.

Previous actions under JPIAMR

- Research infrastructure Working group published an overview on the AMR resources and services:
 - **Biobank and its associated database:** comprise of collections of biological materials and their associated databases.
 - **Non-sample-databases:** comprise of collection of databases on medical records, registry and other relevant datasets.
 - **Research Infrastructure Services:** comprise of services offered by research infrastructures for managing and using the collections and databases.

(<https://www.jpiamr.eu/resources/amr-knowledge-hub/research-infrastructure-platforms/>)

- Developed guidelines on tailored dissemination of shared knowledge and best practices in biobanking and data sharing generated from JPIAMR projects and activities.
- A metadata template (based on the Swiss Biobank Platform template) for AMR datasets collection in a machine-readable format that will provide access to the users in a user-friendly searchable format on a web portal. (ZonMw in collaboration with ValueDx and Health RI)

(<https://www.gofairfoundation.org/m4m/>)

DESIGN OH AMR

Contact

E-mail: ohamr@vr.se

Web address: www.ohamr.eu

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Joint Programming Initiative
on Antimicrobial Resistance