

EU-JAMRAI 2 - DELIVERABLE 4.1

SUSTAINABILITY GUIDANCE TOOL



**BUILDING A
ONEHEALTH
WORLD** 

to reduce Antimicrobial Resistance (AMR)

WP4 | Sustainability Guidance Tool

Leader acronym | MoH-FR

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Dissemination level | Public

Delivery date | 31-12-2024

This document originates from the European Joint Action on Antimicrobial Resistance and Healthcare Associated Infections 2 project (EU-JAMRAI 2).

HISTORY

Date	Version	Change
15/10/2024	0.1	First version prepared by WP4 Team (MoH-Fr)
29/10/2025		Document shared with WP5 – WP10 for review
15/12/2024	0.2	Changes made after review by WP5 – WP1
19/12/2024		Document shared with WP1 (coordination team) for review
07/01/2025	0.3	Changes made after review by WP1
15/01/2025		Final checks by the Coordination team for submission
16/01/2025	0.3	Final version updated on Teams and European Commission portal

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ABBREVIATIONS

AC: Associated Countries

AMR: Antimicrobial Resistance

AMS: Antimicrobial Stewardship

DG: Directorate General

EU: European Union

HERA: Health Emergency preparedness and Reponses Authority

IPC: Infection Prevention and Control

JA: Joint Action

JAMRAI 2: Second Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections

MDRO: Multidrug-Resistant Organism

MoH-FR: French Ministry of Health

MS: Members States

NAP: National Action Plan

OH: One Health

PO: Priority Outcome

WHO: World Health Organization

WP: Work Package

GLOSSARY

Specific objective : are defined by the Grant Agreement for every WP regardless of sustainability

Output : product of the input resulting into potential outcome to achieve your objective

Outcome : ultimate stage of the ouput resulting in concrete findings/actions defined by the WP

Priority Outcome (PO) : precisely intended to highlight the main outcome targeted by the WP

Sustainability roadmap : intended to gather in detail all the expected PO issued by technical WPs



EXECUTIVE SUMMARY

Sustainability relates to the uptake and implementation of **priority outcomes** in order to ensure a long-term impact of a project within participating countries. The **main goal** of the Work Package (WP) on sustainability from the second European Joint Action on Antimicrobial resistance and Healthcare associated infections (EU-JAMRAI 2) is therefore **to make sure that the outcomes of the Joint Action are accounted for into national and EU response capacities to tackle Antimicrobial Resistance (AMR), even beyond the end of the project (2024-2027).**

The purpose of this sustainability guidance tool is to facilitate the process of developing a **roadmap for sustainability** that will eventually guide the writing process of a sustainability plan. This sustainability plan will be key for the integration and implementation at national, European levels and beyond (pan-EU) of the selected priority outcomes arising from the work of WP 6 to 10 (technical WPs). WP leaders and co-leaders are therefore the main target group for its use.

To support the uptake of the Joint Action (JA) outcomes by Member States (MS), Associated Countries (AC) and agencies, the Work Package on sustainability (WP4) will work on the long-term impact of the JA activities and results to maintain them over time so they last after the end of the JA (in December 2027). For that purpose WP4:

- **Has developed a grid (priority outcome table)** available in the present guidance tool, aiming to **identify the JA priority outcomes from each WP**, gather their outputs and expected results as well as facilitate their assessment, and ultimately achieve their integration into national/subnational policies and action plans. **The priority outcome tables are essential to the JA process as they enable WPs to consider all the steps** (action items, timeline that are key for implementation and factoring in uptake capacity) **needed to achieve a priority outcome as well as the issues that could be encountered.** Once the priority outcome tables are filled, the WPs will be able to **produce their roadmap**, which can be depicted as **the sum of all their priority outcomes.**
- Will ensure that all technical WPs use the sustainability guidance tool to assess uptake and implementation capacity of the priority outcomes that need to be maintained at European Union (EU) and pan-EU levels, as appropriate ;
- Will produce a sustainability plan/report (deliverable 4.2, expected for October 2027), to guide implementation and sustainability of the selected priority outcomes issued from the JA, and scale them up to a national level.

Policy briefs are tools aiming to foster the implementation of these specific actions into National Action Plans and policies concerning AMR. They are essential to the EU-JAMRAI 2 sustainability process as they constitute the interface between the scientific and healthcare professionals communities and policy-makers and offer short and operational recommendations. Although they are not compulsory, writing policy briefs is strongly recommended for implementing EU-JAMRAI 2 proposals at a national level. This guidance tool also provides a template that could be used by all WPs dedicated to policy makers for dissemination across countries.



Afterwards, and before initiating writing the sustainability plan, the roadmaps containing the proposed priority outcomes will be presented to all EU-JAMRAI 2 partners prior to a definitive selection.

At last, both the final roadmap for sustainability (consisting in the sum of each WP's roadmaps) and the selected priority outcomes will be the foundation for the development of the sustainability plan (WP4 deliverable 4.2). This document will be designed to ensure the definitive selected priority outcomes are implemented and preserved beyond the timeframe and scope of EU-JAMRAI 2. It should be released on Month 46 (October 2027) and should aim to summarize the concrete actions implemented during EU-JAMRAI 2 and to be implemented further at national and European level and beyond for a sustainable action.



1 AN INTRODUCTION TO WP₄ – SUSTAINABILITY AND INTEGRATION INTO POLICIES

1.1 Introduction and background

The Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections (JAMRAI) focuses on antimicrobial resistance (AMR) and healthcare-associated infections, one of the key health threats of our times according to World Health Organisation (WHO) and Health Emergency preparedness and Responses Authority (HERA) of the European Commission. For instance, it has been estimated worldwide 39 million death will be attributable to AMR between 2025 and 2050¹.

The first JAMRAI was conducted from 2017 to 2021 and resulted in 4 key actions:

- Raising awareness about AMR;
- Improving national action plans (NAPs) and policies through tools designed for Sharing best practices between Member States (MS) and Associated Countries (AC);
- Developing tools for infection prevention and control (IPC) to promote antimicrobial stewardship (AMS)
- The One Health (OH) approach with the implementation of integrated surveillance.

The second Joint Action on Antimicrobial Resistance and Healthcare-Associated Infections (EU-JAMRAI 2) began in January 2024 and aims at reducing the risk of exposure of citizens to antibiotic-resistant bacteria also known as multidrug-resistant organisms (MDROs). It is supported with €50 million under the EU₄Health programme, making it the largest EU-funded action on AMR to date.

The general objectives of EU-JAMRAI 2 are:

- To provide direct and sizable support to help MS/AC in the development and the update of their National Action Plans (NAP) on AMR
- To strengthen the responsiveness and coordination of health systems to protect people from AMR in the European Union (EU)
- To promote the One Health approach
- To make Europe a best practice region

The action of EU-JAMRAI 2 brings together 30 countries including all EU MS and AC (Iceland, Norway and Ukraine). Their missions are focusing on areas such as IPC, surveillance and monitoring, prudent use of antimicrobials (AMS), awareness raising and providing access to

¹ Kariuki S., Global burden of bacterial antimicrobial resistance 1990–2021: a systematic analysis with forecasts to 2050, *Lancet* 2024 Sep 28; 404(10459):1172-1173. doi: 10.1016/S0140-6736(24)01885-3



therapeutics. In line with the One Health approach needed to tackle AMR, the initiative includes activities related to human and animal health as well as the environment, thus covering all sectors linked to the use of antibiotics.

As a starting point for sustainability in EU-JAMRAI 2, it is important to ensure that the following specific objectives are guiding the process of the Joint Action (JA) for all WPs:

- All technical WPs have to consider the notion of sustainability within their work, reports and the implementation of their due outcomes
- Set up and implement a support programme to help MS/AC in the development and update of their national policies

The main goal of WP₄ is to ensure that the outcomes of the JA are accounted for into national and EU response capacities to tackle AMR. In order to achieve such objective, WP₄ developed the present guidance tool to facilitate priority outcomes selection and foster the integration of those deemed relevant, both at national and EU/pan-EU level.

To support the uptake of the JA outcomes by MS/AC and agencies, **WP₄ will work on the long-term impact of the JA activities and results to maintain them over time so they last** after the end of the JA (in December 2027). For that purpose WP₄:

- Has developed a grid (**priority outcome table**) **intended for WP leaders** which is available in the present guidance tool, aiming to gather the JA outputs and results and facilitate their assessment, and ultimately achieve their integration into national/subnational policies and action plans ;
- Will ensure that all technical WPs use the sustainability guidance tool to assess uptake and implementation capacity of the priority outcomes that need to be maintained at EU and pan-EU levels, as appropriate ;
- Will produce a **sustainability plan/report** (deliverable 4.2, expected for October 2027), to guide implementation and sustainability of the selected priority outcomes issued from the JA, and scale them up to a national level.

1.2 Sustainability in EU-JAMRAI 2

Sustainability relates to the uptake and implementation of the JA **priority outcomes** in order to ensure a long-term impact of the JA results within MS/AC, even beyond EU-JAMRAI 2. Outcomes differ from outputs in that outputs are the first-stage results of the intervention, whereas outcomes typically depict a more medium- or long-term stage of the action, and may take into account other factors.

To achieve our sustainability objective, it is important that the relevant national/European context is considered prior to and during implementation. Sustainability should be ensured across the relevant sectors, while also factoring in the different needs and uptake capacities of each country.



It is noteworthy to consider how the JA can be influenced by changing environments, including external factors and current events that might require adaptation, such as a new pandemic or ongoing conflicts. Indeed, human conflicts have been shown to be an important driver of AMR with consequences for healthcare systems globally and adherence to IPC precautions is key to reducing further spread of multidrug-resistant organisms².

All partners need to take into consideration different important elements when working towards sustainability:

- **Context and relevance:** consider relevant contextual factors that may influence the process (e.g., health and social policies, innovation, cultural trends and general economy, and migration). It is essential to identify ways to facilitate integration of project outcomes at national and/or EU level by recognising and considering existing structures, processes, stakeholders and networks. Mapping and data collection at an early stage are important to better identify gaps and needs that can help incorporating priority outcomes in MS.
- **Engagement and ownership:** Ensure engagement through consultation and coordination across relevant sectors in collaboration with WP5 (engagement of MS). This process can facilitate the uptake of priority outcomes at national level and beyond, and contribute to their ownership. When using the guidance tool it is important to keep in mind that supported outcomes are relevant for the whole EU action and that relevant authorities/institutions are involved according to the outputs. Established ownership is expected to contribute to building the foundation for sustainability.
- **Coherence and alignment:** Strong coordination is key for optimising coherence and alignment, within the JA, with other JAs and with other relevant structures. It also facilitates the process of identifying risks of overlap and duplication, as well as potential synergies with existing structures and processes supported by other WP leaders or co-leaders. Ensuring coherence and alignment sets the stage for a holistic approach towards sustainability.
- **Integration and adaptation:** Establishing robust plans can facilitate the process of integration at national scale. However, to be sustainable, these plans should be feasible and based on implementation and uptake capacity (and availability of resources). The plans should also be adaptable in case of outbreaks, emerging needs and changing environments.

² Pallett, S.J.C., Boyd, S.E., O’Shea, M.K. *et al.* The contribution of human conflict to the development of antimicrobial resistance. *Commun Med* 3, 153 (2023). <https://doi.org/10.1038/s43856-023-00386-7>

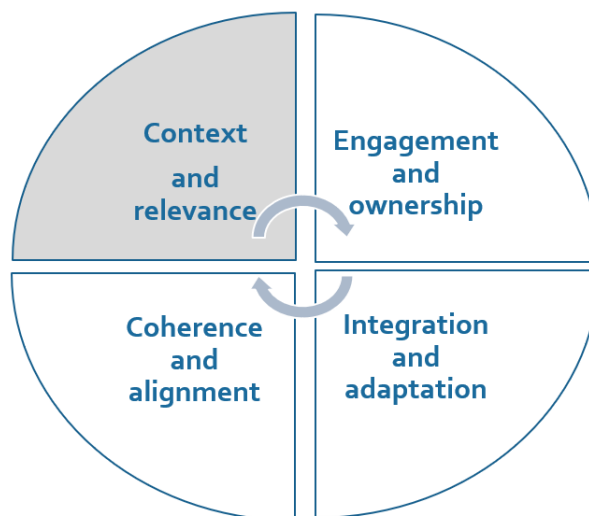


Figure 1. Sustainability principles for EU-JAMRAI 2

1.3 The sustainability process: from guidance tool to sustainability plan

The sustainability guidance tool is designed to be the first step to support the WPs in developing ultimately a unique **“roadmap for sustainability”** gathering selected priority outcomes. It is released at the end of 2024, so that participants can take it into account at an early stage and work with it for the rest of the JA.

Each WP needs to fill priority outcome tables (available in the present guidance tool – Annex 1), aiming to gather the JA outputs and results as well as facilitate their assessment, and ultimately achieve their integration into national/subnational policies and action plans. Once initial priority outcome tables are developed (2025), they will be refined and revisited regularly throughout the project period by MS/AC (at least once a year until mid-2027). During the JA, external stakeholders will also be informed of the priority outcomes selection process (see below p. 20). Ideally, the revision process will also include priority outcomes that have sufficiently matured so their implementation can start during the present JA to continue with a more solid basis afterwards. Such priority outcomes could also be promoted because of a contextualized potential threat affecting the populations (i.e. a lasting shortage of an essential drug leading to an increased prevalence of a preventable disease).

At last, both the final roadmap for sustainability (consisting in the sum of roadmaps filled by each WP) and the selected priority outcomes will be the foundation for the development of the sustainability plan that will be designed to ensure sustainability of the JA outcomes beyond 2027.

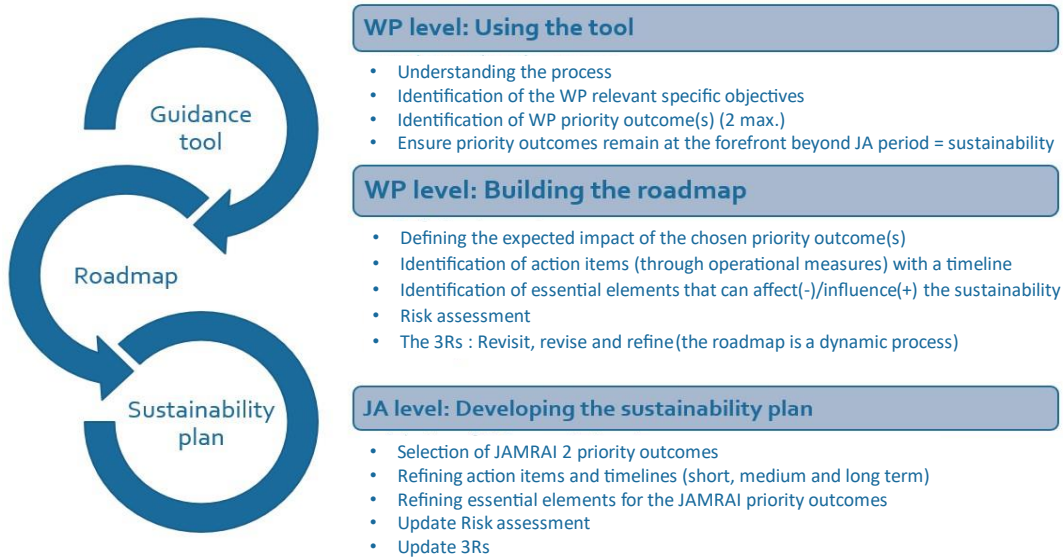


Figure 2. From guidance tool to sustainability plan

2 THE GUIDANCE TOOL AND THE PRIORITY OUTCOME TABLES

The purpose of the sustainability guidance tool is to facilitate the process of developing the **roadmap for sustainability** towards the sustainability plan for integration and implementation at local/national, EU and pan-EU levels of the selected priority outcomes resulting from the proposal(s) of WP 6 to 10 (technical WPs).



Figure 3. Depiction of EU-JAMRAI 2's levels

It should be noted that EU-JAMRAI 2 objectives have to be extended and **implemented up to the national level** (Figure 3), so **every country can benefit from the JA, regardless of their progress concerning their NAPs and policies aimed to tackle AMR**. As countries representatives, liaison officers* should be fully integrated in this process, serving as a potential control group for the selected priority outcomes (in collaboration with WP5). They are as well the main targets of policy briefs and responsible for their dissemination and implementation in their respective countries.

* Liaison officers are key individuals appointed in each countries who are involved in the developement and implementation of NAP.

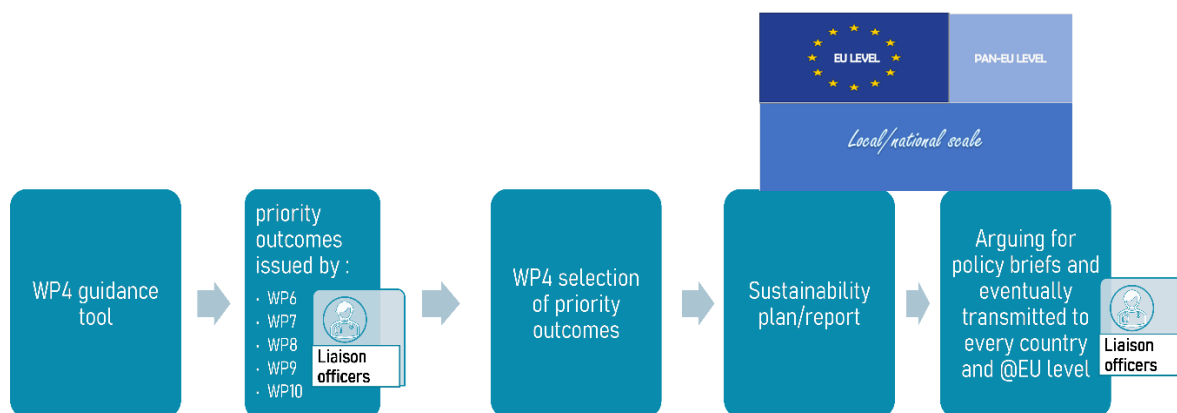


Figure 4. The sustainability process in EU-JAMRAI 2

The **mandatory process** of developing the roadmap for sustainability (combining the different priority outcome tables) consists in identifying and selecting priority outcomes, describing their expected impact and listing the relevant action items for implementation, as well as essential elements. Each WP roadmap might consist of one or several priority outcomes, with the corresponding action items and timeline that are key for implementation, as well as factoring in uptake capacity.

2.1 Identification of WP contribution to EU-JAMRAI 2 specific objectives

WP4's motto is that all technical WPs have to take into account the sustainability of their outcomes within their work and reports (deliverables) from early stages of development and implementation of their work. This is what the roadmap aims for, operating as a checklist recalling the main items and essential elements required to achieve sustainability.

Each technical WP should initiate the roadmap development process by identifying and establishing a **clear link between the JA specific objectives** (Table A) relevant for the WP deliverables **and the selection of WP priority outcome(s)** so its action during EU-JAMRAI 2 is efficient. Specific objectives can thus be depicted as the foundations for building priority outcome(s).



Table A. Specific objectives of JAMRAI 2 for WP6-10 (according to the Grant Agreement)

Specific objectives of EU-JAMRAI 2	
#1	Implementation of a support programme to help MS/AC in the development and update of their NAP and policies
#2	Implementation of core elements and competencies for AMS and IPC in various settings
#3	Support MS/AC to progress towards an integrated One Health surveillance of AMR
#4	Improve access to selected AMR-related products both for human and veterinary use
#5	Raise awareness on AMR and the importance of the prudent antimicrobial consumption in human and animal health

2.2 The priority outcome table (template)

A priority outcome table has been developed to facilitate the development of the final roadmap for sustainability (that relies on selected priority outcomes issued from JA specific objectives, determined by WPs and selected notably by WP4). The priority outcome table is intended to be a summarized version of the process of how the sustainability guidance tool aims to support the WPs in developing the roadmaps. **The next sections will provide instructions for how to work with and complete the required priority outcome table** (available in Annex 1), **with a dedicated DOCX document available via Teams**. A brief reminder of the structure of the priority outcome table is presented in Table B below.

The Priority outcome table is meant to be completed and revised by the WPs in a continuous process, throughout the implementation of the ongoing JA (see section 2.7 : The 3Rs). For greater clarity, a fictitious example of a priority outcome table has been drawn up for guidance, and is available in Annex 2 (in addition to the template in Annex 1).



Table B. Priority outcome table - identification of relevant objectives, priority outcome(s) and essential elements for sustainability of the priority outcome

Priority outcome table #X		Include WP number and name		
Specific objective(s)		All thematic WPs should take into account the sustainability of their outcomes within their work and reports (deliverables). <i>Add the relevant objective of your WP</i>		
Priority outcome #X		<i>Insert your WP priority outcome (one priority outcome table per priority outcome), according to Fig. 5 (p.15)</i>		
Impact		<i>Briefly describe how the priority outcome is expected to have a positive impact – linked to the gap/need to be addressed</i>		
Action items (timeline) : <small>(actions to implement to achieve the PO)</small>		Short term (Y2: 2025)	Medium term (Y3-4: 2026-27)	Long term (beyond JA)
1.1	<i>Action item and responsible actor (Indicators of progress should be linked to a timeline)</i>	<i>Describe a sequence of concrete actions needed to achieve the desired outcome</i>	<i>Key actions may include pre-implementation phase interventions, small scale pilot studies and preliminary studies to investigate feasibility, potential phases of deployment and up-scaling</i>	<i>Maintain the strategy conceived/ implemented during the JAMRAI through the relevant owner/actor</i>
1.2	<i>New action item and involved actor</i>			
1.3 etc.				



Essential elements	National level	EU level	Pan-EU level
Key stakeholders	<i>Describe role of actors mentioned</i>		
Uptake and implementation capacity	<i>Describe the expected opportunities and challenges regarding the uptake capacity of relevant bodies and/or organizations</i>		
Budget and fundings	<i>Describe funding needs and potential sources for funding</i>		
Potential limits/issues etc.	<i>Despite the supposed positive impact of the action proposed, some issues may be encountered and should be stated, with their possible management.</i> <i>You may use the SWOT model (see section 2.7)</i>		

This table is essential to design the roadmaps serving as a basis for the sustainability plan that takes into account the feasibility of the proposed actions, but also considers outcomes in short, medium and long-term perspectives. It contributes to building together a sustainable JA.

2.3 Identification and selection of priority outcomes in the WPs (WP roadmap)

The process of drawing up the priority outcome table is the first step for all work packages in developing a **global roadmap for sustainability**. The priority outcomes should clearly reflect the expected achievement of the WPs. Each WP roadmap might consist of one or more priority outcomes (ideally two), based on the WP deliverables in the JA. If each WP want to produce multiple PO corresponding to their action framework, it should be noted that the further PO selection process will make sure they are aligned with the countries' priorities and therefore might not be systematically taken into consideration for the ultimate roadmap for sustainability. Each priority outcome will require one dedicated priority outcome table. Thorough completion of these priority outcome tables will be an important resource in this process. It is also important to note that, beyond WP deliverables, work methods established in the JA (such as stakeholder or expert networks) may also be identified as priority outcomes that could be sustained.

Criteria for selection of priority outcomes :

The WP selection of priority outcomes should be done with strong emphasis on relevance and in terms of how the priority outcome(s) can be sustained and implemented into national or EU

plans/policies. **The priority outcomes to be sustained at European or pan-European level might be differentiated from those to be integrated at national level, and from national priorities (identified by WP5).**

The WP members should discuss and agree on priority outcomes based on the WP deliverables and the project specific objectives. This process would also ideally include early stakeholder engagement at national and/or EU-level. The selection process should adhere to the guiding principles as described and visualized in chapter 1 (see Figure 5 below) to ensure awareness on factors affecting the sustainability.

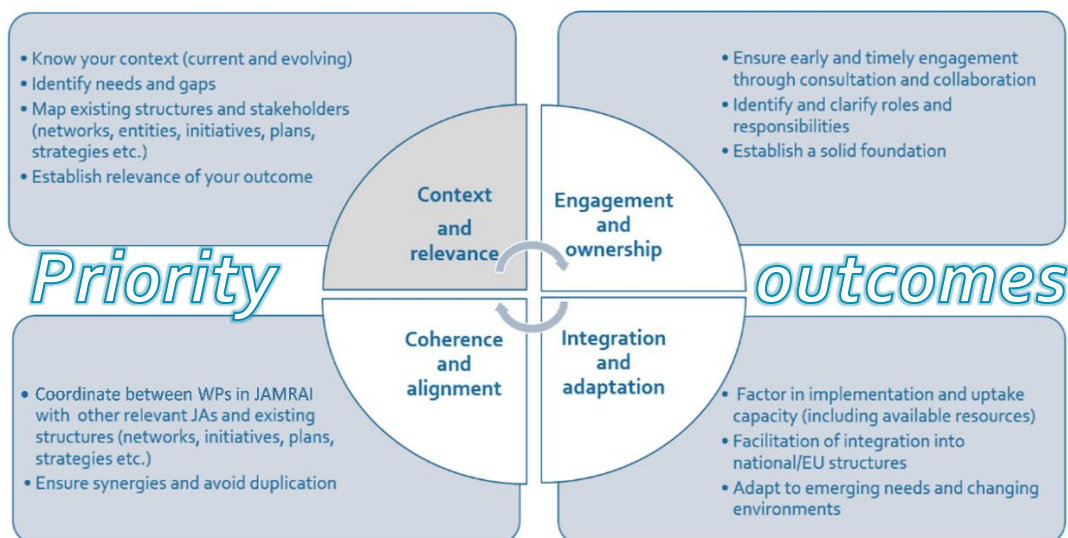


Figure 5. Sustainability principles for EU-JAMRAI 2 (expanded version)

Guiding questions that can inform the selection of the priority outcomes:

- Is the outcome aligned with WP specific objectives?
- How does the outcome contribute to the EU-JAMRAI 2 objectives, including a OH approach?
- Is the outcome meeting identified needs at national/EU/pan-EU level?
- Can the outcome be implemented and sustained over time at national/ EU/pan-EU level?
- Can ownership of the outcome/process be established at national/EU/pan-EU level?
- Are there risks of duplication of other activities or processes associated with the outcome?
 - If so: how can that risk be mitigated?
- Are there synergies with other JAMRAI outcomes or other ongoing processes that should be factored in?
 - If so: WPs can work together to build one common priority outcome or WP4 can promote synergies if 2 priority outcomes are similar



2.4 Describe the intended impact of the priority outcome

To what extent will the priority outcome ensure an impact? Ensure that the WP has defined the need(s)/gap(s) to address towards the change you wish to see and clarify how the priority outcome addresses the gap/need. It can rely on already operational strategies or benefits proven in the literature on the topic, which can be implemented at a wider scale than simply regional or national, but which are intended to be disseminated across all MS/AC and **provide concrete actions**.

The description of the intended impact is also meant to guide the WP in identifying the most relevant action items and essential elements when developing the priority outcome table. **Action items and essential elements** (see Figure 6 below) **are the cornerstones for the development of the priority outcome(s)** and will be developed in the next two chapters.

2.5 Identification of action items and timeline for the priority outcome

When the priority outcome is defined, it should be linked with relevant action items necessary for its uptake, integration and implementation. The action items should be appropriate to lead to sustainable changes, as well as reasonable in terms of resources required for ensuring long-term sustainability. In this process, **it is important to consider both short- and medium-term action items to bring about sustainable long-term changes**.

The action items should be guided by SMART criteria, as follows:

- Specific
- Measurable
- Achievable
- Relevant (and realistic)
- Time-bound

The action items should be feasible for MS/AC willing to integrate the priority outcomes into their national plans or policies and structures. Moreover, it should be clear which actor/structure type (policy-makers, public health agency, authority in charge of surveillance...) endorses the responsibility of each relevant action item, and at what level if appropriate (see chapter 2.6 about essential elements).

Although priority outcomes are proposed from a long-term perspective, action items should be declined over time in accordance with short- medium- and long-term perspectives for the achievement of each WP objectives inside the JA. The proposed set-up can be revised at any time when relevant until mid-2027 when the finalized roadmap will serve as a basis for the sustainability plan.

2.6 Identification of essential elements for the priority outcome

When developing the roadmap, it is important to ensure room for adjustments and adaptations for the action items to different national contexts and concerns. Indeed, a variety of factors can influence uptake capacity, implementation and sustainability of the outcomes and could be translated through “essential elements”.

Indeed, in addition to a time/period dimension (action items), the roadmap should consider a “Three-dimensional space” of its action at 3 different levels (national, EU and pan-EU).

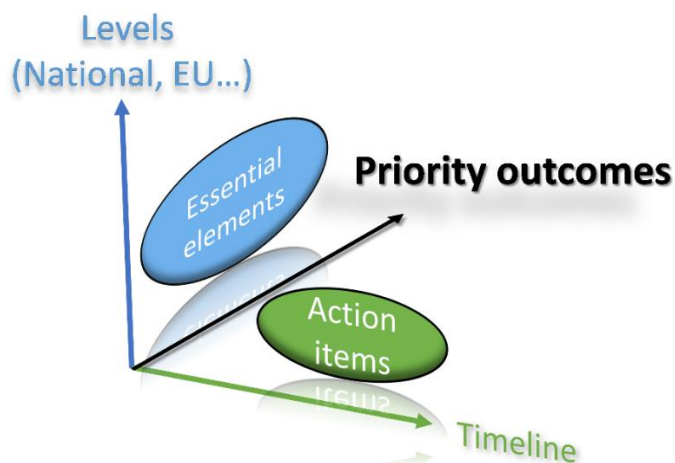


Figure 6. 3D-axis pyramid representing the principles of priority outcomes for EU-JAMRAI 2

To guide the development of the roadmap towards “integration into national/EU policy” and/or beyond, the table C entitled “Examples of essential elements” provides some guidance and pointers in terms of elements and aspect to consider when developing the roadmap. The list is not exhaustive, not all elements are relevant for all outcomes, but any item can be added at any time into the relevant section.

Essential elements should be factored in for each action item to ensure that the specificities of the national context (socio-political, regulatory, organizational etc.) are considered. To appraise the context-specific adjustment, not only the background of the original pilot undertaken during the JA but also the future uptake should be considered to achieve sustainability.

It is also important to identify the appropriate level(s) for the implementation of the priority outcomes and their related action items. The priority outcome table template has been divided between national, EU and pan-EU. This can also be adjusted by only keeping the necessary level to consider for the different essential elements (e.g. national and/or EU-level).



The WP is recommended to continuously revisit (once in 2025 then at least yearly until mid-2027) the list of essential elements that can affect and influence the sustainability and uptake capacity for each of the selected priority outcomes and the relevant objective whenever appropriate.

Table C. Examples of essential elements – aspects to consider when completing the PO table

Essential elements	Aspects to consider
Budget and funding	<p><i>What resources are required and how can they be mobilized?</i></p> <p><i>Funding needs to be considered to sustain the integration of the priority outcome into national/EU level policies. Resources to be considered include funding, staff, logistics, space requirements, supplies, equipment, and time of key partners. Budgeting in an early phase should inform the development of a financial strategy for actions that are expected to require a certain level of funding.</i></p>
Key stakeholders	<p><i>Who are the key stakeholders/partners, what are their roles and how can they be engaged?</i></p> <p><i>The key stakeholders/partners should be listed, engaged and described in order to help identify the needed expertise and gaps, as well as clarification of roles and responsibilities.</i></p>
Other stakeholders	<p><i>Are there other stakeholders/partners, what are their roles and how can they be engaged?</i></p> <p><i>Other relevant stakeholders/partners should be listed in order to identify their role for implementation and progress.</i></p>
Uptake and implementation capacity	<p><i>What opportunities and challenges can be expected regarding the uptake capacity of relevant bodies and organizations? How can implementation be achieved?</i></p>
Existing plans/strategies/directives/organizational and regulatory framework / initiatives	<p><i>What already exists (or is planned), and how is it relevant for the implementation of the action?</i></p> <p><i>Ensure to factor in existing (or planned) processes, strategies, networks etc. to explore potential synergies and to avoid duplication and overlap.</i></p>



Essential elements	Aspects to consider
Equity	<i>How is the action likely to affect different population groups, and what potential impact on health equity does it have?</i>
Training needs	<i>What training needs does the action require (and for which audience)?</i> <i>Identify needs of training, as well as for development of training sessions/materials/etc. to ensure that the intervention is delivered correctly and to the widest audience.</i>
Potential limits/issues and their management	<i>What are the limits/issues associated with the action, and how can/should they be managed or counterbalanced?</i> <i>A risk assessment can help identify potential issues, their impact and likelihood, as well as inform appropriate mitigation measures to be taken (see the SWOT model).</i>

2.7 Potential limits and issues - risk assessment and management

It is strongly recommended that all WPs perform a risk assessment exercise for the relevant outcomes(s). This process is expected to contribute to inform and raise awareness on relevant aspects required for the completion of the roadmap (and later on the sustainability plan).

The following **SWOT** analysis standing for **S**trengths **W**eaknesses **O**pportunities **T**hreats (Table D) can be a useful tool for identifying essential elements, especially for relevant opportunities and challenges. It can be used for the priority outcome, and/or for the different action items in order to break down the aspects that might influence implementation and integration.

Table D. **SWOT** template – aspects to consider when conducting the risk assessment

STRENGTHS	WEAKNESSES
<i>List strengths related to the priority outcome</i> - - -	<i>List weaknesses related to the priority outcome</i> - - -
OPPORTUNITIES	THREATS
<i>List opportunities related to the priority outcome</i> - -	<i>List threats related to the priority outcome</i> - -

2.8 The 3 Rs: Revisit, Revise and Refine - continuously

When developing the roadmap, it is important to acknowledge that there will be aspects that have not been accounted for, other ongoing processes, new scientific data or external factors that will eventually require changes/adaptations. Indeed, for instance the Covid-19 pandemic has redefined the course of the EU-JAMRAI 1 and thus impacted both the scope and the timeline of the action.

Therefore, **completion of the roadmap is a continuous process where the priority outcome tables can and should be revisited, revised and refined** throughout the implementation of the action (once in 2025 then at least yearly until mid-2027) towards the elaboration of the Sustainability plan (Figure 7). In addition, the 3 Rs process ensures that the WPs take sustainability of their outcomes into consideration throughout each step of the project duration.

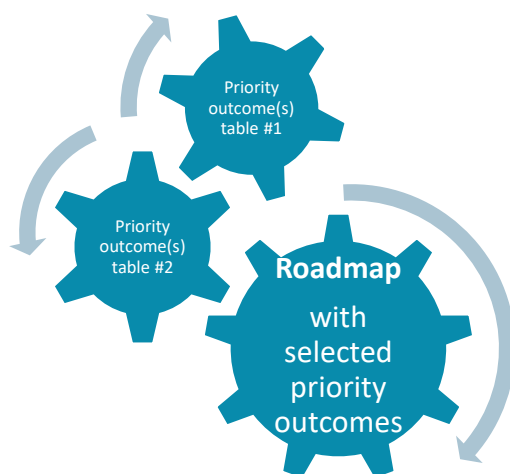


Figure 7. Principles of interactions between priority outcome tables and the definitive roadmap

3 ROADMAP GOAL : SELECTION OF PRIORITY OUTCOMES FOR JAMRAI-2

In practice, during the initial phase, priority outcomes will be identified and refined within the WPs. At the next stage priority outcomes will be jointly identified. Thereafter, the proposed priority outcomes will be presented to project external stakeholders prior to a definitive selection building foundations for the sustainability plan (WP4 deliverable 4.2, expected for October 2027). This process is expected to unite technical WPs (6-10) and will rely on bilateral meetings. Simultaneously, WP4 will keep track of the process with consultations with the relevant actors including the coordination team (WP1), the Advisory Board, DGs, etc.

The **roadmap can be depicted as the sum of all the priority outcome tables**, which ultimately will serve to support and produce policy briefs **in order to implement these specific actions into NAPs and policies** concerning AMR. The final roadmap for sustainability will contain all the WP's roadmaps. For clarification a timeline has been depicted (see Figure 8 below).

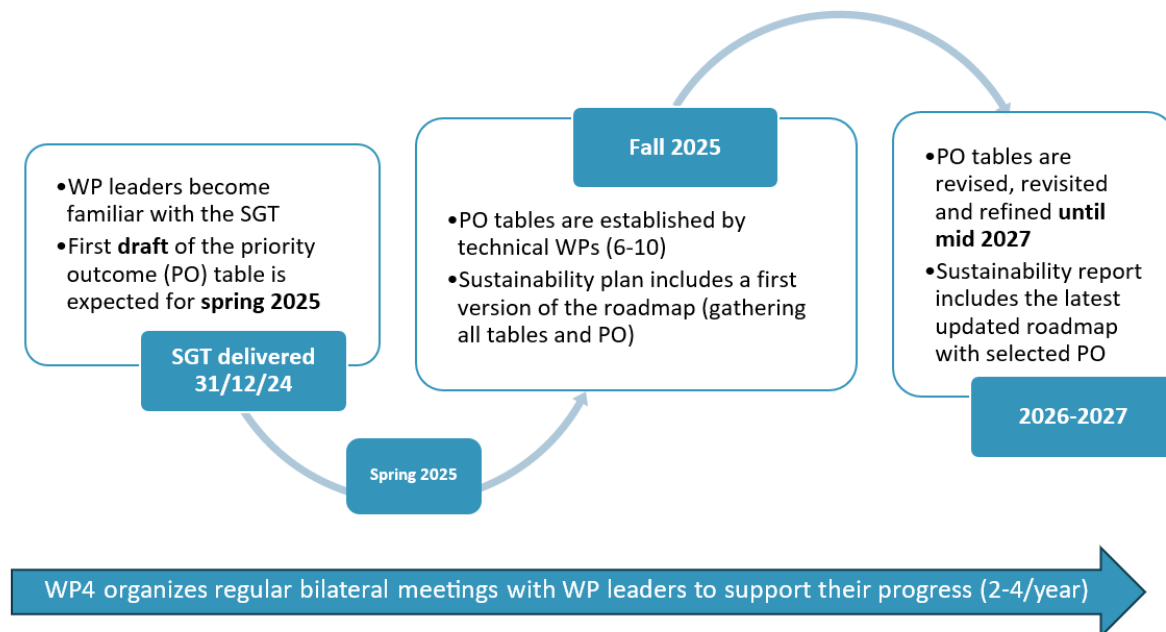


Figure 8. Timeline representing the main expectations of WP4 for EU-JAMRAI 2

4 POLICY BRIEFS FOR POLICY-MAKERS

A policy brief can be perceived as the interface between the scientific community and politics. Therefore, it is a concise document designed to present findings and evidence in a format that is accessible to policy-makers, stakeholders, and the general public. The intended audience for policy briefs includes government officials, legislators, advocacy groups, think tanks, and other stakeholders involved in the policy-making process.

Typically, a policy brief provides a summary of a particular issue or problem, outlines potential policy solutions, and offers recommendations for action. It may also include background information, key statistics, real-life condition data and case studies to support its arguments. Policy briefs are expected to be clear, well-researched, and objective, with the aim of informing decision-makers and influencing policy outcomes. Therefore it should include concrete proposals to tackle AMR.



In order to produce a EU-JAMRAI 2 policy brief focusing on AMR and covering key aspects of the issue and proposing concrete policy recommendations, we designed a structured framework as a template with guided examples (refer to Annex 4). This template will be redesigned in collaboration with WP10 (communication) for eye-catching purposes in accordance with each technical WP's topic, with a dedicated DOCX document available via Teams later on. Ideally, policy briefs as their name suggests, should be concise and not exceed 2-3 pages. **Although they are not compulsory, writing policy briefs is strongly recommended for implementing EU-JAMRAI 2 proposals at a national level.**

5 THE SUSTAINABILITY PLAN

The aim of EU-JAMRAI 2 WP4 will be to develop a **sustainability plan to ensure the definitive selected priority outcomes are implemented and preserved beyond the timeframe and scope of the programme**. In this context, sustainability is defined as “the long-term uptake and implementation capacity of the Joint Action’s outcomes”.

Thus, the development of the sustainability plan (WP4 deliverable 4.2, expected for October 2027) requires continuous efforts to revisit, revise and refine (3Rs) priority outcomes throughout the project duration, as well as nourished by other project deliverables produced by technical WPs.

Sustainability plan will be produced by WP4 in collaboration with WP leaders, JAMRAI liaison officers representing each MS/AC and/or stakeholders. To achieve this, continuous support and coordination will be provided with the coordination team (WP1) and the WP leaders to review the selected outcomes and to confer on the next steps to be included in the sustainability plan.

The integration into national policies (task 4.2) of some selected best practices issued from priority outcomes will potentially be piloted in collaboration with other WPs whose priority outcomes are sufficiently mature. This task is also supported by WP5 (engagement of MS). If deemed relevant at a later stage, WP4 will provide further guidance and tools for this process throughout the project.



ANNEXES

Annex 1 - Priority outcome table (template to fill out)

Priority outcome table #1		WP...:		
Specific objective #1				
Priority outcome (PO) #1 (according to Fig.5 p.16)				
Impact (of the PO)				
Action items (timeline)		Short term (Y2: 2025)	Medium term (Y3-4: 2026-27)	Long term (beyond JA)
1.1	Action item and responsible actor			
1.2				
1.3				
Essential elements		National level	EU level	Pan-EU level
Key/other stakeholders				
Budget and fundings				
Potential limits/issues				
Uptake modalities				
Existing plans/ strategies/initiatives				
Equity				
Training needs				



Annex 2 - Priority outcome table (fictitious example)

Please note that in this example, some action items and selected essential elements were used.

Priority outcome table #1		WP10: Communication, Awareness raising		
Specific objective #1		Raise awareness on AMR and the importance of prudent antimicrobial consumption in human and animal health		
Priority outcome (PO) #1		Spread essential and basic information on AMR to general population		
Impact (of the PO)		<ul style="list-style-type: none"> - Contribute to AMS and possibly trickle down to future generations - Contribute to raising awareness in the event of a future epidemic caused by a MDRO 		
Action items (timeline)		Short term (Y2: 2025)	Medium term (Y3-4: 2026-27)	Long term (beyond JA)
1.1	<i>Designing an app aiming to raise awareness and behavior changes</i>	Gather key stakeholders to contribute to a sufficient scientific database needed (engineers, infectious disease (ID) specialists) to reach the largest audience	Promote alliances with research institutes to create an app that can be downloaded and used anywhere in the world	Extend the catalog of apps surrounding the topic of AMS and AMR for the general audience with notifications about current outbreaks
1.2	<i>Implement regular campaigns/updates about AMR</i>	Highlight the relationship between antibiotic consumption and AMR	Add the notion of AMR to campaigns of AMS using different channels (TV, mainstream media, internet, social networks, etc.)	Training at an educational level regarding AMS, IPC with the notion of environment and human + animal health sectors, with easy and simplified access to surveillance systems
Essential elements		National level	EU level	Pan-EU level
Key actors and other stakeholders		Under the responsibility of every country health agency and MoH to promote AMS	AMR One Health network in link with HERA could raise awareness of 1 of the top 3 priority serious threats	WHO could support trainings during high school up to graduation
Potential limits/issues		People may ignore such training and prevention programs considering the absence of local outbreak	It may be mitigated due to other seasonal vaccination campaigns that are more concrete actions	Focusing on a specific bug may overlap with other priority threats issued by WHO (n=10)
Uptake modalities		Use of already existing channels dedicated to promoting IPC for AMS	HERA opportunity to leverage its action to one the top 3 priority threats	WHO opportunity to prepare for the risk of a pandemic and implement its local presence in countries lacking from AMS ambassador
Equity		The goal of such strategy is to reach the largest audience possible, also reaching equity among MS/AC		
Training needs		healthcare professionals, including nurse assistants with skills in ID but also teachers depending on the audience		



Annex 3 - Risk assessment template (with brief examples)

Risk <i>Add identified risks/rows</i>	Prob-ability <i>(L/M/H)</i>	Impact <i>(L/M/H)</i>	Risk impact description <i>Describe potential impact</i>	Risk management measures <i>Describe relevant measures that might mitigate the risks identified</i>
Lack of ownership/ pulverization of responsibilities	M	H	Lacking ownership directly affects project impact/reduced impact	Early engagement with relevant stakeholders Early identification of responsible stakeholders
Lack of funding	M	H	Directly affects implementation/prevents implementation, action item 1.3 requires XX funding to enable implementation	Development of funding strategy Early identification of budget requirements and potential funding opportunities
Duplication of efforts/structures	L/M	M	Overlap between countries and loss of productivity/efficiency	Clear communication and role distribution between participants
Etc.	-	-	-	-



Annex 4 - Policy brief template (with brief examples)

Title of the Policy Brief

The title may reflect the challenge/intervention targeted by the policy brief in one or two sentences.

Background - Unmet need

Briefly introduce the issue of antimicrobial resistance (AMR), highlighting its global impact on public health, healthcare systems, and the economy. Provide context on the rising threat of AMR and its implications for healthcare delivery, infectious diseases and patient outcomes. You may develop the multifaceted impact of AMR on public health, healthcare systems and society. For instance, address the increased morbidity and mortality associated with drug-resistant infections, the economic burden of AMR-related healthcare costs, and the challenges posed by limited treatment options.

Drivers of the action: Identify and analyze the main drivers contributing to the problem you are trying to warn or solve bringing adequate proposals. For example, this may include factors such as inappropriate antimicrobial use in human and animal health, inadequate infection prevention and control measures, lack of access to clean water and sanitation, and global travel and trade.

What does EU-JAMRAI 2 add to the situation?

Review current strategies and interventions aimed at combating AMR at the national, and EU/pan-EU levels. This may include surveillance and monitoring programs, antimicrobial stewardship initiatives, infection prevention and control measures, research and development of new antimicrobial drugs, and public awareness campaigns.

What can be done? Policy Recommendations

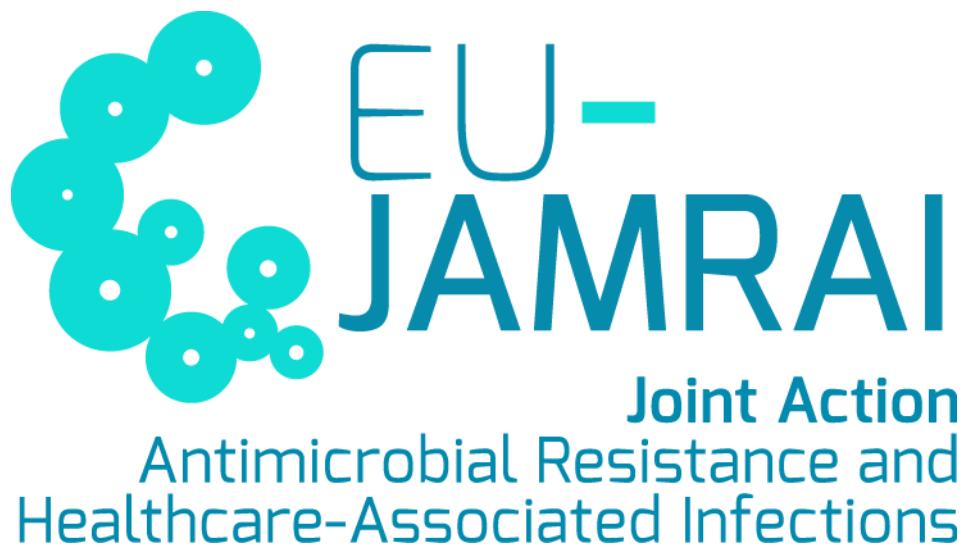
Present evidence-based policy recommendations to address AMR comprehensively and effectively in accordance with your WP and priority outcome. These recommendations should be targeted towards policymakers, healthcare providers, regulatory agencies, and other stakeholders involved in AMR prevention and control efforts. Recommendations or Calls for Action may be organized in paragraphs and detailed point by point, using for examples, bullet points or numbers. For instance, they can include strengthening antimicrobial stewardship programs, promoting appropriate antimicrobial use in human and animal health, enhancing surveillance and monitoring systems, investing in R&D of new antibiotics, and fostering international collaboration and coordination.

Key points

Summarize the key points discussed in the policy brief and emphasize the importance of taking urgent action to address the growing threat of AMR. Reinforce the need for concerted efforts from all stakeholders to implement evidence-based policies and interventions to mitigate the impact of AMR and preserve the effectiveness of antimicrobial drugs for future generations. Gaps to address

References

Insert relevant citations from the literature into this paragraph wherever relevant.



**EU-
JAMRAI**

Joint Action
Antimicrobial Resistance and
Healthcare-Associated Infections

EU-JAMRAI 2 Partners involved in the elaboration of this document:



Direction générale
de la santé

EU-JAMRAI 2 receives funding from the European Union's EU4Health programme under grant agreement No 101127787. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or HaDEA. Neither the European Union nor the granting authority can be held responsible for them.