

Item	Title of document	Action
12	JPIAMR SRIA implementation Roadmaps	Information and discussion

JPIAMR SRIA implementation Roadmaps

Purpose of Item

In alignment with the update of the Strategic Research and Innovation Agenda (see Item 11), the JPIAMR is in the process of developing a Roadmap of actions by each thematic pillar for the period 2019-2023. This item provides an overview of the process and its current contents. Feedback from the Management Board members regarding prioritisation and identification of key strategic actions is requested.

Background

The Editorial Board of the JPIAMR Strategic Research and Innovation Agenda has updated the text of the SRIA, and outlined the priority topics. An overview of the priority topics, focus and main research objectives is in Annex 1.

Brief summary of the actions to date on the development of the Roadmap

<u>Actions</u>	<u>Dates</u>
Establishment of the Editorial Board	December 2017
Development of the Research Objectives of the SRIA pillars	December 2017 – September 2018
Open consultation on the SRIA pillars <i>Each MB member was asked to promote the questionnaire among their national experts and stakeholders</i>	From 9 July to 15 September 2018

Next steps in the development of the Roadmap

<u>Actions</u>	<u>Dates</u>
Survey for the JPIAMR country members to prioritise research objectives and choose enabling activities <i>Countries provide priority research objectives and matching enablers. (detailed explanation in MB meeting of 24 October 2018)</i>	To be launched October-November 2018
MB meeting – Leuven <i>Examples of National Procedures for consultations Group work/joint discussion to do prioritisation of Research Objectives and assignment of Enabling Activities (detailed explanation in MB meeting of 24 October 2018)</i>	24 October 2018
Editorial Board working sessions (virtual) <i>Collate prioritisation results from National Consultation and preparation for the Prioritisation workshop</i>	November-December 2018

Roadmap Prioritisation workshop (Annex 2) <i>Participants: SAB, other experts, SC and EB (Annex 3). Basis for this workshop is the priority research objectives from MB survey of November. (detailed explanation in MB meeting of 24 October 2018)</i>	6-7 December 2018
Editorial Board work session – virtual or live <i>Preparing Roadmap draft for MB last review</i>	December 2018 to 20 January 2019
MB review Roadmap for implementation <i>(detailed explanation in MB meeting of 24 October 2018)</i>	20 January 2019 to MB meeting Q1 2019
Bilateral consultations of the draft Roadmap with key stakeholders	Q1 2019
MB approval Roadmap for implementation <i>(detailed explanation in MB meeting of 24 October 2018)</i>	MB meeting Q1 - 2019
Edit, publish and promote Roadmap in alignment with SRIA activities	From MB Q1 2019 onwards

Description

The Management Board session on the Roadmaps will include:

- A brief overview of the process for developing the JPIAMR Roadmap 2019-2023.
- An introduction to the National Prioritisation Consultation with national examples
- An interactive discussion regarding prioritisation

From October-November 2018 the Editorial Board will conduct a National Prioritisation Consultation. In preparation for this session Management Board, members are requested to become familiar with the updated JPIAMR SRIA texts (found here:

<https://www.jpiamr.eu/activities/strategicresearchagenda/update-of-sria-2018/>) and use the table in Annex 1 as a guide for assigning potential enabling activities to research objectives within the National Consultations. A summary of the enabling activities can also be found in Annex 1 of this document. The Annex is also a starting point for the working session.

Questions for the Management Board representatives

1. What are the most prioritised Research Objectives?
2. What are the most appropriate enabling activities for the prioritised Research Objectives?

Document prepared by

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Annex 1. Table to determine which enabling activities are appropriate for Research Objective in the six JPIAMR priority topics.

	Research Objective	Focus	Research Objective	Research Calls	JPIAMR-VRI Networks	JPIAMR-VRI Capacity Building	Proof of Concept	Workshops	Research Infrastructure	Comments
Therapeutics	1	Development of new antibiotics and therapeutic alternatives and the improvement of current antibiotics and treatment regimens	Find new targets for antibiotics							
	2		Develop chemical scaffolds and chemically-modified antibiotics							
	3		Improve pharmacokinetics and pharmacodynamics of antibiotics, including neglected antibiotics							
	4		Use personalised medicine and artificial intelligence to improve therapies							
	5		Develop alternatives for antibiotics							
	6		Develop treatment protocols based on combination therapy using existing and new antibiotics							
	7		Develop policy measures and economic stimuli to minimise barriers for the development and introduction of new therapies and alternatives							
	8		Assess how regulation modifies and influences antibiotic usage and production							
Diagnostics	1	Development and improvement of diagnostics to improve use of antibiotics and alternatives to antibiotics	Improve the efficacy of new and existing diagnostic tools to more effectively distinguish between bacterial and non-bacterial infections, and/or detect antibiotic susceptibility							
	2		Create support for the implementation of innovative technologies and linkage to data platforms promoting the use of narrow-spectrum antibiotics							
	3		Improve the use of point-of-care diagnostics in appropriate One Health settings							
	4		Develop better understanding and explore ways to overcome behavioural and economic barriers limiting the adoption and usage of point of care diagnostics							

Surveillance	1	Optimisation of surveillance systems to understand the burden and drivers of antimicrobial resistance in a One Health perspective	Improve and standardise AMR surveillance systems, from sampling to data analysis including sampling frame, tools, methodology and reporting								
	2		Strengthen the use of surveillance data to identify human and non-human reservoirs of AMR								
	3		Optimise the use of surveillance data to assess the impact of interventions								
	4		Develop novel techniques to supplement and promote the exchange of surveillance data								
	5		Improve and standardise the surveillance on antibiotic use								
Transmission	1	Understanding and prevention of transmission of antibiotic resistance between bacterial populations and One Health reservoirs	Unravel the complex dynamics of selection and transmission of antibiotic resistance								
	2		Identify factors responsible for the persistence and spread of resistant organisms and resistance genes								
	3		Determine the impact on AMR of different systems of healthcare, animal production, global trade and environmental pollution and contamination								
Environment	1	The role of the environment as a source of, the selection for and spread of antimicrobial resistance	Determine and model the contribution of contamination sources, environmental reservoirs and exposure routes on the emergence and spread of AMR								
	2		Evaluate the relationship between AMR and the environment, climate change, and pollution								
	3		Assess the potential impact of industrial systems on AMR in the environment								
	4		Develop innovative technological, policy, social, economic and regulatory approaches to mitigate AMR in the environment								
Interventions	1	Investigation and improvement of infection prevention and control measures in different One Health settings	Develop innovative interventions aimed to prevent and control the spread of AMR in a One Health perspective								
	2		Research the effectiveness of AMR prevention and control strategies to increase uptake and acceptance in health, agriculture, and environmental settings								
	3		Assess the effectiveness and cost-effectiveness of specific AMR prevention and control practices, considering different geographic and socio-economic settings								
	4		Optimise implementation strategies, including drivers for and barriers to behavioural change, to reduce AMR								
	5		Understand the prescription and dosage behaviours contributing to the prudent use of antibiotics								
	6		Assess educational and training programmes to enhance antibiotic stewardship								

Summary of available JPIAMR Instruments

Scientific studies are very valuable to guide and support policies aimed at combating AMR. In an effort to acquire such scientific input, JPIAMR issues joint transnational research calls, which drive Member State research actions to develop solutions for AMR. In addition, JPIAMR has also developed and launched calls for transnational networks in which researchers and experts within the AMR community, and beyond, identify key questions to be addressed, or analyse potential solutions to research, knowledge, and policy gaps. The resulting white papers, prospective views, guidelines, roadmaps or systemic reviews provide valuable resources to inform a range of stakeholders. JPIAMR's actions to date have provided a solid foundation for the research community to act within research and networking capacities, which will be strengthened further with the formation of the JPIAMR Virtual Research Institute (JPIAMR-VRI).

Joint Transnational Calls (large or small)

This enabling activity refers to open national and joint transnational competitive calls for proposals in all strategic areas of AMR.

- Large calls: JPIAMR Joint Transnational Research Calls funding a consortium of 3-6 (+1) researchers located in three or more countries. Funding is awarded for a period of three years.
- Small calls: JPIAMR Joint Transnational Research Calls that have (1) lower budget, (2) shorter duration, (3) fewer partners. These calls should be implemented to achieve rapid solutions to research questions.

JPIAMR calls include calls for proposals for joint public-private projects, “bolt-on funding” to top up projects, or joint calls exploiting synergies with other funding organisations.

JPIAMR calls encourage multidisciplinary and translational approaches with a One Health perspective.

JPIAMR-VRI Networks

Includes networking and partnership among research communities to create joint transnational capacity programmes to mobilise the best human talent, thereby increasing scientific capacity. JPIAMR-VRI Networks serve as a bridge both within and between pre-clinical science, and clinical and commercial developers of new treatments and diagnostics through a permanent dialogue with health care, health policy and animal health policy, industry and their networks (such as the BEAM Alliance), public-private partnerships (such as IMI) and relevant policy makers and managers.

JPIAMR-VRI Capacity Building (mobility, education, training, etc.)

JPIAMR-VRI Capacity Building facilitate researcher mobility within and between JPIAMR-VRI Networks and external organisations. The types of modes that may be implemented include, for example:

- Fellowships
- Secondments
- Travel Awards
- Planning and Dissemination Grants
- Educational programmes:
 - Courses
 - Summer schools
 - Industry PhD awards

Proof of Concept

Proof of Concept groups are used to advance discoveries/inventions (intellectual property on new products or tools) to a state of use suitable for commercialisable technologies, with a view to attract new investment, create new science-based businesses, organisations and initiatives, in the private, not-for-profit, or public sectors.

Workshops

Organise scoping workshops, strategic workshops, intergovernmental workshops, projects workshops, and an annual JPIAMR annual conferences in strategic areas related to AMR.

Research infrastructure

Maintain the JPIAMR database of AMR research and infrastructures to promote collaboration, use and increased trans-national access.

Support a programme in collaboration with ESFRI and ERIC for increasing access to, use of, and collaboration between AMR research resources and infrastructures.

Provide data on academic, SME and industry projects, and a portfolio of AMR research outputs and results for related industries, health care institutions and public health decision-makers, to facilitate development of joint translational projects.



Joint Programme Initiative on AMR

Workshop to Construct a Roadmap for Implementation of the JPIAMR Strategic Research and Innovation Agenda

**Hotel City Resort Leiden, the Netherlands
6 -7 December 2018**

BACKGROUND AND OBJECTIVES

The updated JPIAMR Strategic Research and Innovation Agenda (SRIA) states 30 research objectives within the six priority topics: Therapeutics, Diagnostics, Surveillance, Transmission, Environment, and Interventions. The SRIA provides a framework to align and support excellent research on Antimicrobial Resistance (AMR) that will be translated into the new treatment options, prevention and control of AMR through co-operative action of the JPIAMR member countries.

The aim of this workshop is to develop the most appropriate roadmap for the implementation the SRIA by taking into account the priorities, resources, and capabilities of the JPIAMR members, as well as the added value created by JPIAMR support in addressing the research objectives. The roadmap will be translated into joint activities where the JPIAMR will have an impact through joint actions, also beyond calls in the timeframe 2019-2023.

The outcome of the Management Board survey on the prioritisation of the updated SRIA will form the basis for discussions in this workshop, together with the analysis of the mapping of AMR research funding showing the gaps in previous funded projects.

The objective is to provide a list of suggestions for joint activities for the period 2019-2023 to advise the JPIAMR Management Board.

PARTICIPANTS

- Invited experts and stakeholders
- Scientific Advisory Board members
- Editorial Board members
- Steering Committee of JPIAMR members

EXPECTED OUTCOME

It is expected that a list of suggested joint actions to implement the SRIA priority topics and their research objectives will be produced based on the existing information provided. For each priority

topic, two to three ordered and relatively precise propositions issued from the research objectives will be suggested to construct a roadmap for future joint activities in 2019-2023.

Three groups will work in parallel composed of different categories of participants. During day one, propositions on all six priority topics and actions should be done and ordered as much as possible in each group.

Consultations and the final ranked list actions will be done at the beginning of day 2 in a plenary session. During day 2 the prioritised actions or instruments will be discussed which are most appropriate for the implementation. The meeting will produce a list of suggestions for potential joint activities for the period 2019-2023 to advise the JPIAMR Management Board.

TENTATIVE PROGRAMME

Day 1 – 6 December 2018

09:00 – 09:30		Arrival and Registration	
09:30 – 10:45	Plenary session	Welcome, introductions (15'')	JPIAMR secretariat Laura Marin ZonMW Linda van Gaalen
		Presentation of SRIA (30'')	Editorial Board Chair
		Presentation of mapping of research funded (15'')	JPIAMR secretariat Shawon Lahiri
		Outline of programme and methodology to reach the target of the workshop (15'')	ZonMw
10:45 -11:00	<i>Break</i>		
11:00 – 12:30	Breakout session	Prioritisation session I (see methods)	3 working groups in parallel – setting priorities within the 6 priority topics
12:30 – 13:30	<i>Lunch</i>		
13:30 – 15:00	Plenary session	Short update from breakout session and general discussion	Introduction by WG rapporteurs followed by facilitated group discussion
15:00 – 16:30	Breakout session	Prioritisation session II (see methods)	3 working groups in parallel – setting priorities within the 6 priority topics
16:30 -17:00	<i>Break</i>		
17:00 – 18:00	Plenary session	Short update from breakout session and general discussion	Introduction by WG rapporteurs followed by facilitated group discussion.
18:00		Closure of day 1	
19:00	<i>City walk and dinner</i>		

Day 2 – 7 December 2018

8:30 – 09:00	Plenary session	Prioritisation session III: Final ranking of topics for implementation	Individual scoring per prioritised actions for JPIAMR.
09:00 – 10:30		Roadmap for implementation session I: Identification of key actions by priority topic (across pillars)	Facilitated group discussion.
10:30 -11:00	<i>Break</i>		
11:00 – 12:00	Plenary session	Roadmap for implementation session II: Main conclusions and list of recommendations for potential Joint Actions	Facilitated group discussion
12:00 - 12:30	Plenary session	Summary comments, next steps	Editorial Board JPIAMR secretariat
		Closure of the meeting	JPIAMR secretariat ZonMW
12:30	<i>Lunch & Departure</i>		

Annex 3. List of Participants for SRIA prioritisation workshop

Name	Country	Position
Laura Piddock	UK	SAB
Eric Brown	Canada	SAB
Evelina Taconelli*	Germany	SAB
Maria Teresa Coque	Spain	SAB
Bruno Gonzalez-Zorn	Spain	SAB
Christina Greko	Sweden	SAB
Jean-Yves Madec	France	SAB
Tsakris Athanassios*	Greece	SAB
Ana Maria De Roda Husman	Netherlands	SAB
Mark Sobsey	USA	SAB
Jocelyne Arquembourg	France	SAB
Katherine Payne	UK	SAB
Marc Bonten	Netherlands	external expert/former SAB
Annegret Schneider*	Germany/UK	external expert/SAB 2019
Jordi Vila Estape	Spain	external expert/SAB 2019
Till Bachmann	UK	external expert/SAB 2019
Constance Schultz	Netherlands	external expert/SAB 2019
Joakim Larsson	Sweden	external expert
Craig Ramsay	UK	external expert
Hermann Goossens	Belgium	external expert/former SAB
Carmen Chifiriuc	Romania	external expert
Jan-Ingvar Jonsson	Sweden	steering committee
Carlos Segovia	Spain	steering committee
Joachim Klein	Germany	steering committee
Richard Gordon	South Africa	steering committee
Jonathan Pearce	UK	steering committee
Antoine Andremont	France	steering committee
Laura Marin	Sweden	JPIAMR secretariat
Arjon van Hengel	European Commission	European Commission
Laura Plant	Sweden	JPIAMR secretariat/Editorial Board
Patriq Fagerstedt	Sweden	JPIAMR secretariat/Editorial Board
Marita van der Laar	Netherlands	Editorial Board
Linda van Gaalen	Netherlands	Editorial Board
Maria Jose Ruiz Alvarez	Italy	Editorial Board
Kay Duggan Walls	Ireland	Editorial Board
Jessica Boname	UK	Editorial Board
Virginie Mouchel	France	Editorial Board
Martine Batoux	France	Editorial Board
Gianmaria Rossolini	Italy	Editorial Board

*To confirm