

Joint Programming Initiative Alignment plan 2015-2018

The Joint Programming Initiative on Antimicrobial Resistance (AMR) joins forces across nations to fight AMR through effective collaborative actions in areas of unmet need. A shared common research agenda enhances multi-disciplinary collaboration and ensures that knowledge gaps are quickly identified and addressed.

A common definition of alignment for Joint Programming

Alignment¹ for JPIAMR is the strategic approach taken by the Member States to modify their national programmes, priorities or activities as a consequence of the adoption of joint research priorities in the context of Joint Programming with a view to implement changes to improve efficiency of investment in research at the level of Member States and the European Research Area. The state of alignment will be modified and will develop further over time to reflect the changing priorities and needs.

Alignment of national research programmes and activities occurs around a common Strategic Research Agenda (SRA). In practical terms, it requires changes to the content of national research programmes, the volume of research and the way the national programme or activity is executed (e.g., in its degree of collaboration with third parties).

JPIAMR member countries are invited to take account of the JPIAMR SRA when designing and updating their own national research and innovation strategies and programmes. In addition, they are invited to improve the inter-operability between their national programmes.

Why promote alignment?

Alignment of National and European research policies and programmes represents a challenge to JPIAMR but it is essential to enable the research priorities outlined in the SRA to be addressed. The SRA covers all the areas according to the One Health approach. It is important that a variety of funders at different levels (regional, national, European and international) and thematic areas (medical, agriculture, environment) are involved in this process and that the relevant countries and Member States are engaged. Alignment could involve a particular research area or specific topic or alignment with other JPI activities. Advantages to aligning include improving the quality of research, providing access to more research and research outputs with relevance to national policy development and would contribute to innovation and economic sustainability and

¹ High Level Group for Joint Programming (GPC) definition (ERAC-GPC 1305/1/14, REV1, 30 October 2014)

growth. It would also ensure that all available resources are better utilised for maximal societal impact and allow greater sight into the portfolio of projects that are funded in each country, preventing duplication of effort and identifying links that can be exploited.

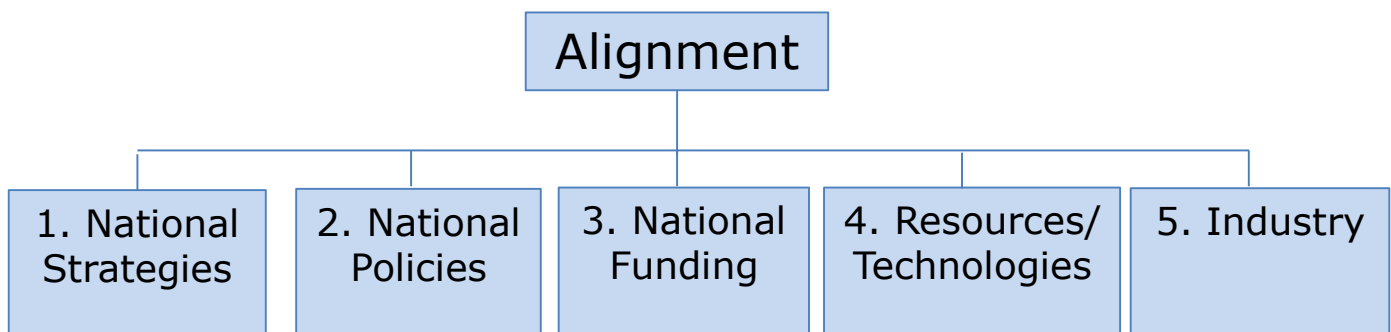
How to achieve alignment?

There are a number of ways to achieve alignment within and between countries depending on the development of the research areas. These include initiation of new research activities, aligning and co-ordinating existing activities, data sharing, sharing of infrastructure, strategic collaborations with other projects and initiatives, training and mobility of researchers and foresight activities. The process of alignment requires common and or overlapping themes, time investment, networks and core topics as a starting point for discussion. Long term investment is also important to enable longer time alignment to develop. The selection of the most appropriate tools for alignment will be identified in the first instance by mapping exercises, networking workshops, think tanks and meetings. It is important to monitor and evaluate the short, medium and long term priorities of the Member States to identify and understand obvious opportunities and gaps. There are a number of overarching activities that would facilitate alignment in the short (**S**), medium (**M**) and long term (**L**) and five areas within alignment that need to be considered for JPIAMR (Figure 1).

Overarching activities

Increasing awareness of JPIAMR and its SRA at international level but also internally at national level is key, and a starting point for alignment. A number of communication tools could be used to raise awareness to both the AMR community and a variety of stakeholders including distribution of leaflets and copies of the SRA, clearly detailing the aim of the JPIAMR. Tailored presentations to different audiences would also help with awareness and facilitate with aligning the wider AMR community. Videos and webinars may also be other mechanisms by which JPIAMR can communicate with the different stakeholders. Identifying key departments and individuals within these departments would help support and engage the AMR community in national discussions. Relevant individuals could be invited to the JPIAMR Management Board as guests and case studies of countries with relevant experience could be made available to demonstrate good practise and also lessons learnt.

Figure 1. The five areas of the alignment plan of JPIAMR



1. National Strategies

This includes national plans action to address AMR.

- Most of the countries within the JPIAMR have a National Strategy for AMR or are in the process of developing one. Many of those currently developing their agendas took account of the SRA which provided with a good source of information.
- For countries with an AMR strategy, it would be necessary to engage with the national key stakeholders to introduce the SRA and identify complementary interests to work towards common goals (**S/M**). Some countries have referenced the JPIAMR SRA in their research strategies section.
- For countries that do not have a strategy, it would be necessary that the profile of AMR was raised (at conferences and meetings for example) and the SRA presented as a way forward (**S/M/L**).
- Identifying the national funders and experts within AMR in these countries would enable input into the development of a strategy (**S/M**).
- Any future strategy under development would ideally be aligned with the research themes in the SRA (**M/L**). Countries with a general infection strategy could use the SRA to include areas and activities relevant to AMR.

The JPIAMR (phase 2) mapping exercise, 'AMR activities beyond funding of research projects' (October 2014-March 2015), has identified countries that have an AMR strategy in place (S) (*Table 1*). The JPIAMR should work across all countries to promote the research themes within the SRA and assist with those currently developing a strategy or those who do not have one.

2. National Policies

This includes a set of national guidelines put in place to achieve the goals detailed in the national strategy.

- It is essential that the gap between research and policy is addressed, which requires more communication and interaction between key researchers and policy makers in all areas including public health, veterinary and environmental (**M/L**).

- Engaging politicians and policymakers help raise awareness of the research conducted and its potential impact. Discussions at early stages would help define research priorities which can be translated into policy and practice (**S/M/L**).
- The JPIAMR (Phase 2) mapping exercise, 'AMR activities beyond funding of research projects', has collected some of the existing policies related to AMR and infection (**S**) (*Table 2*). This was a challenging exercise as many of the local and national policies are not well documented.
- Member States should consider these policies and whether some could be adopted more widely (**M/L**).

Workshops organised by JPIAMR (including 'Identifying the Pathway to Diagnostic Development' held in London on 11th May 2015) brought together researchers, policy makers, clinicians, veterinarians and representatives from industry for discussions on the challenges of developing good diagnostic tools for AMR (**M/L**).

3. National Funding

- The JPIAMR (Phase 1) mapping exercise, 'Public funding for research on antibacterial resistance: A systematic observational analysis in the JPIAMR countries, the European Commission and related European Union agencies (2007-2013)', collated information on AMR relevant research funded nationally by 19 Member States and EU organisations (Kelly *et al*, in press). This mapping highlighted the need for increased and new funding for AMR at national level to reflect the strategic importance and growth of antibacterial resistance and the added value of jointly funded research (**S/M/L**).
- Not many countries have specific AMR national research programmes, however several countries have started to design specific programmes (e.g. The Netherlands, Switzerland). This should be promoted and experiences shared.
- Stronger national and cross country alignment of funding would add value to the current landscape of research and would avoid duplication (**M/L**).
- Different funding models should be considered including public-private partnerships and linking with policymakers and end users. Better coordination across countries would ensure resources are better exploited (**M/L**).
- JPIAMR is considering different funding mechanisms that would add value to existing programmes of work, including supporting research projects that will build on the strength of existing research in the Member States. The first two transnational calls led to 10 projects being funded; early 2016 will see the research networks call being launched across countries with the aim of linking different experts together (**S/M/L**) and the ERA-Net Co-Fund call on AMR transmission
- Develop national common pots to fund AMR programmes (**M/L**).

An intergovernmental Workshop held in Paris on the 17th November 2015 brought together ministries, agencies and funding bodies to discuss the current situation of AMR funding in each country and to discuss ways to add value to new and existing programmes of work, through cooperation and coordination within and between countries and discuss the challenges associated with transnational funding ([link](#)) (**M/L**).

4. Resources/Technologies

- It is important to identify AMR relevant resources both nationally and between countries. This includes available biobanks, clinical samples, data sets as well as technologies that can enable AMR relevant research (**S/M**). JPIAMR would be working closely with Infect ERA in light of their recently published infrastructure database ([link](#)).
- Discussions between researchers around sharing data, information and resources would help reduce costs and promote cross country working (**S/M**).
- Standardisation of technologies, methodologies and data collection would facilitate the use of data generated by different groups (**M/L**). Networking events focussing on areas such as innovation and enabling technologies and research infrastructures may also be explored.

A workshop held in Amsterdam on the 28th October 2015 aimed to devise a plan of approach to (better) share data, collections, and samples and re-use them in the AMR domain. As preparation for the meeting, JPIAMR carried a short survey on knowledge about and use of Research Infrastructures (RI's) within the field of antimicrobial resistance. The survey was open to all scientists and other interested parties who are involved in this field. The survey results were presented at the meeting ([link](#)) (**S/M**).

5. Industry

- The JPIAMR (Phase 2) mapping exercise, 'AMR activities beyond funding of research projects', has identified a large number of companies (over 300) with interest in AMR and the mechanisms different countries have in place for engaging with industry (**S**) (*Table 3*).
- Working in collaboration with pharmaceutical companies and small and medium enterprises is crucial to the success of AMR research especially when developing new therapeutics, diagnostics tools and infection control and prevention measures. Mechanisms to enable closer working between academics and industry (through jointly funded studentships or research projects) should be considered. This would allow expertise, skills and experience to be shared and advice on lessons learnt and best practise to be delivered (**M/L**).

A JPIAMR industry relations task force has been established to enable an environment for information exchange. Early discussions with Innovative Medicines Initiative (IMI), the European Federation of Pharmaceutical Industries and Associations (EFPIA), BEAM, as well as individual companies are underway (**S/M/L**).

Next steps for alignment

Working together and sharing information can prevent duplication of effort and enable the highest quality research to be funded; the output of that research can then underpin future policy developments in the AMR area. Alignment requires innovative approaches and it must be recognised that it is a dynamic process that will change and develop over time to align with research priorities and needs. Good practices of alignment should be further developed and eventually become best practices, shared among other JPIs and promoted throughout Member States. Evaluating progress in this area is important to ensure the JPIAMR is achieving its aim of implementing the actions detailed in this plan within the next 4 years.

Annex

Table 1. The countries within JPIAMR that report having a National Strategy on AMR as of March 2015

Total Number of Countries Providing Data	Countries Reporting having an AMR National Strategy	Countries in the Process of Developing a Strategy	Countries Reporting no National Strategy (or plans to develop one)
18	12	3	3

Table 2. The countries within JPIAMR that have a policy or guidelines on AMR or infection

Country	Human	Animal
Argentina	Not supplied	Not supplied
Belgium	BAPCOC website http://www.health.belgium.be/Antibiotiques/index.htm?fodnlang=en	AMCRA 2020 Policy http://www.amcra.be/sites/default/files/files/AMCRA%202020%20finaal_EN(1).pdf
Canada	The Public Health Agency of Canada has developed infection prevention and control and prescribing guidelines, including those specific to AMR bacteria.	Notice to stakeholders http://www.hc-sc.gc.ca/dhp-mps/vet/antimicrob/amr-notice-ram-avis-20140410-eng.php
Czech Republic	Action Plan http://www.szu.cz/narodni-antibioticky-program	Not supplied
Denmark	Denmark Joint Antibiotic Resistance Action Plan http://www.sum.dk/Aktuelt/Nyheder/Sundhedspolitik/2010/Maj/~media/Filer%20-%20dokumenter/Antibiotikaresistens/Handlingsplan_mod_antibiotikaresistens.ashx	Denmark Joint Antibiotic Resistance Action Plan http://www.sum.dk/Aktuelt/Nyheder/Sundhedspolitik/2010/Maj/~media/Filer%20-%20dokumenter/Antibiotikaresistens/Handlingsplan_mod_antibiotikaresistens.ashx
Estonia	Policies in place for prescribing antibiotics and infection control requirements in health care settings. To be updated in 2015.	Recommendations on antibiotic use http://www.vet.agri.ee/static/files/1289.antibiootikumide%20kasutamine%20eri%20loomliikide%20puhul.pdf ; http://www.vet.agri.ee/static/files/1290.ab%20kasutamine%20veised.pdf http://www.vet.agri.ee/static/files/1291.AB%20kasutamine%20sead.pdf
Finland	Guidelines	Not supplied

	http://www.julkari.fi/handle/10024/116266 https://www.thl.fi/documents/10531/163131/Rekommendation_f%C3%B6r_diagnostik_av_karbapenemasproducerande_bakterier_v1.0.pdf https://www.thl.fi/documents/10531/163131/Rekommendation_f%C3%B6r_diagnostik_av_ESBL_v1.0.pdf	
France	Antibiotics Plan http://www.plan-antibiotiques.sante.gouv.fr/-DGS-.html http://www.hcsp.fr/explore.cgi/avisrapportsdomaine?clefr=372	Antibiotics Plan http://www.plan-antibiotiques.sante.gouv.fr/-Afssaps-.html http://www.plan-antibiotiques.sante.gouv.fr/-HAS-.html http://www.plan-antibiotiques.sante.gouv.fr/-DHOS-.html
Germany	Guidance http://www.rki.de/EN/Home/homepage_node.html http://www.gesetze-im-internet.de/bundesrecht/ifsg/gesamt.pdf http://www.dgkh.de/pdfdata/MedHygVo/MedHygVO_NRW_13032012.pdf	http://www.fli.bund.de/en/startseite/home.html
Greece	Not supplied	Not supplied
Israel	Multiple policies and guidelines are in place related to infection control, AMR control, and antibiotic stewardship	Animal feed guidelines are in progress
Italy	National Prevention Plan	Guidance on antibiotic use in animals

	http://www.ccm-network.it/pagina.jsp?id=node/1829&idP=89&idF=935	http://www.salute.gov.it/portale/news/p3_2_1_1_1.jsp?lingua=italiano&menu=notizie&p=dalministero&id=2245
Japan	<p>Guidance on the treatment of specific organisms http://www.mhlw.go.jp/bunya/kenkou/kekkaku-kansenshou11/01-05-42-01.html</p> <p>http://www.nih.go.jp/niid/ja/kansennohanashi/433-mdr-pa.html</p> <p>http://www.nih.go.jp/niid/ja/kansennohanashi/469-vre.html</p> <p>http://www.mhlw.go.jp/bunya/kenkou/kekkaku-kansenshou11/01-05-140912-4.html</p> <p>http://www.kansensho.or.jp/guidelines/pdf/guideline_mrsa_2014.pdf</p>	Not supplied
Latvia	No national guidelines, but there are 'Regulations Regarding the Basic Requirements for a Hygienic and Counter-Epidemic Regimen in a Medical Treatment Institution (574/2006)' in Latvia	Not supplied
Netherlands	Reduction of antibiotic use in clinical care (SWAB) and infection prevention (WIP). Regulations in place that prevent over the counter sales of antibiotics. Surveillance of Hospital acquired infections as part of quality legislation. Strong supervision through Health Care Inspectorate.	Progressive policy towards the reduction of antibiotics in veterinary health.
Norway	<p>Use of antibiotics http://www.helsedirektoratet.no/publikasjoner/nasjonale-faglige-retningslinjer-for-antibiotikabruk-i-primerhelsetjenesten/Publikasjoner/IS-</p>	Not supplied

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Poland	Antibiotic plan www.antybiotyki.edu.pl	Not supplied
Romania	Website http://www.ms.ro/?pag=181;	Website http://www.ansvsa.ro/?pag=845
Spain	Antibiotic guide http://www.antibioticos.msc.es/guias.htm	Antibiotic guide http://www.aemps.gob.es/
Sweden	The National Board of Health (Socialstyrelsen) and The Swedish Board of Agriculture has a governmental mission to coordinate an action plan at the national level since 2012	Not supplied
Switzerland	Website http://www.bag.admin.ch/gesundheit2020/index.html?lang=en	Not supplied
Turkey	Website http://uamdss.thsk.gov.tr/ http://www.resmigazete.gov.tr/eskiler/2005/08/20050811-6.htm	Strategic Plan http://www.tarim.gov.tr/SGB/Belgeler/2013-2017/Stratejik_Plan2010-2014.pdf

<p>UK</p>	<p>Guidance and information</p> <p>https://www.gov.uk/government/publications/the-health-and-social-care-act-2008-code-of-practice-on-the-prevention-and-control-of-infections-and-related-guidance</p> <p>https://www.nice.org.uk/news/article/tackling-the-rise-in-antibiotic-resistance</p>	<p>Guidance</p> <p>http://beva.org.uk/useful-info/Vets/Guidance/AMR</p>
<p>UK</p>	<p>http://www.his.org.uk/files/3113/8693/4808/epic3_National Evidence-Based Guidelines for Preventing HCAI in NHSE.pdf</p> <p>http://www.rcgp.org.uk/TARGETantibiotics/</p> <p>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417032/Start Smart Then Focus FINAL.PDF</p> <p>http://www.survivingsepsis.org/Guidelines/Pages/default.aspx</p>	

Table 3. The countries within JPIAMR that demonstrate links with industry

	Number of countries
Countries providing data	18
Countries reporting an organisation that can directly fund industry	16
Countries reporting an organisation that can indirectly fund industry	10
Countries reporting dedicated calls to AMR (that encourage participation of industry)	3
Countries reporting methods of good practice for engaging and working with industry (but are not specific to AMR)	9