



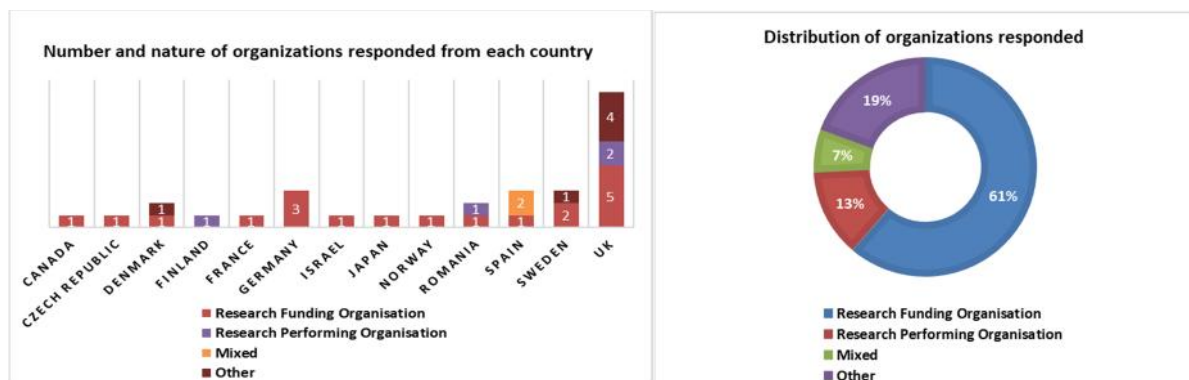
JOINT PROGRAMMING
INITIATIVE
ON ANTIMICROBIAL
RESISTANCE

REPORT ON TRANSNATIONAL COLLABORATION 2017

Report on survey on cross-border collaboration in infectious diseases and antimicrobial resistance – JPI

A survey regarding cross-border collaboration in infectious diseases were sent to the JPIAMR MB spring 2016. The survey included 8 questions regarding bilateral and multilateral agreements (see appendix 1). 13 countries answered to the survey at various degree of details. One country answered that it was difficult to find the resources to collect the data and therefore could not give a detailed answer. One of the 13 countries marked that they have no specific agreements within the area of infectious diseases and antimicrobial resistance, (except for JPIAMR), but projects from this area can be supported within other existing R&D programmes.

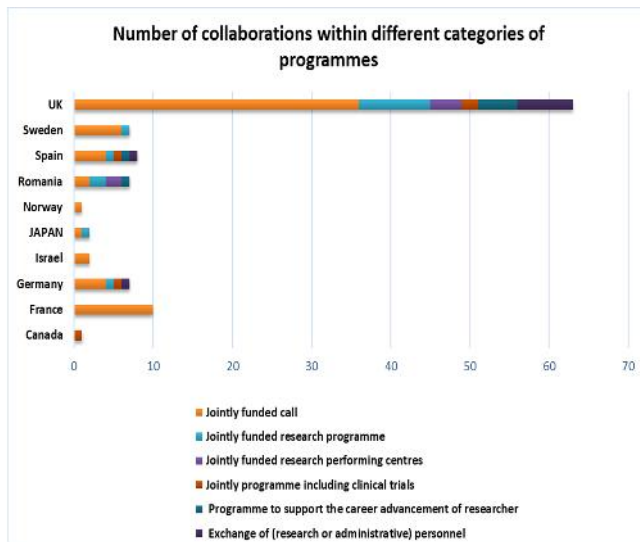
The organisations from the different countries could be categorized on their nature of function and the ones involved in research funding seem to be most prevalent.



Among those, 61% of the different organisations reported to have international activity through formal cooperation agreements (MoU, Lol, or similar) with other countries in the area of infectious diseases and/or antimicrobial resistance. Equal participation is observed for organizations involved in joint programmes/ collaborations with other funding agencies in Europe (41%) and even outside Europe (37%).



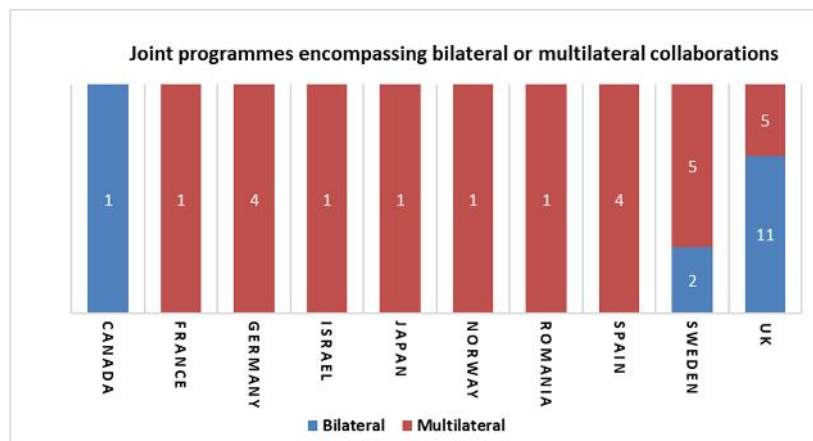
UK is the country that by large appear to have most collaborations around the world within the area of infectious diseases and also involved in different programmes as categorized below. Please find their list of collaborations in appendix 2.



Summary of the collaborations reported by different countries:

- Collaborating countries/regions outside JPIAMR reported: East-Asia region, sub-Saharan region, Baltic region, China, India, South Africa, USA
- European initiatives: EDCTP, Infect-ERA, ERA-LAC, EMIDA ERA-net, ANHIWA ERA-net
- Type of jointly actions reported:
 - approx. 66 funded calls
 - 15 research Programmes
 - 6 Research Performing centres
 - 5 Programmes including clinical trials
 - 7 programmes to support research careers

The countries involved in different joint programmes have both bilateral and multilateral collaborations.



The multilateral collaborations/agreements reported per country are listed below (and also schematized in the network map)

Germany (2 organisations)	<ul style="list-style-type: none"> - Health Research Networks Subsahara Africa - HIVERA - ERA-Net LAC - EDCTP
Spain	<ul style="list-style-type: none"> - Infect- ERA - TDR - WHO - EDCTP
Czech Republic	- No agreements within the area
Israel	- Infect-ERA
Sweden	- WHO

	<ul style="list-style-type: none"> - PHAS is in the process of becoming a collaborating center on contain Antimicrobial Resistance - Baltic Antibiotic Resistance collaborative Network - Expert Group on Antimicrobial Resistance under Northern Dimension Partnership in Public Health and Social Well-being (NDPHS) - Global Health Security Agenda; AMR Action Package. Sweden leads a subgroup on AMR surveillance within this Action Package.
Japan	- e-ASIA JRP
Romania	- Infect-ERA
Norway	- Indian Council of Medical Research
France	- Infect-ERA
UK – 11 organisations have answered	<ul style="list-style-type: none"> - STAR-IDAZ International Research Consortium for Animal Health (STARIDAZ IRC) - Collaborative Working Group for European Animal Health and Welfare Research (CWG AHW) which is a network of European research funders and programme owners - EDCTP - EMIDA ERA-Net - ANIHWA ERA-Net
Denmark	- Indicated that they have agreements but have not specified any collaborators

Bilateral agreements/collaborations

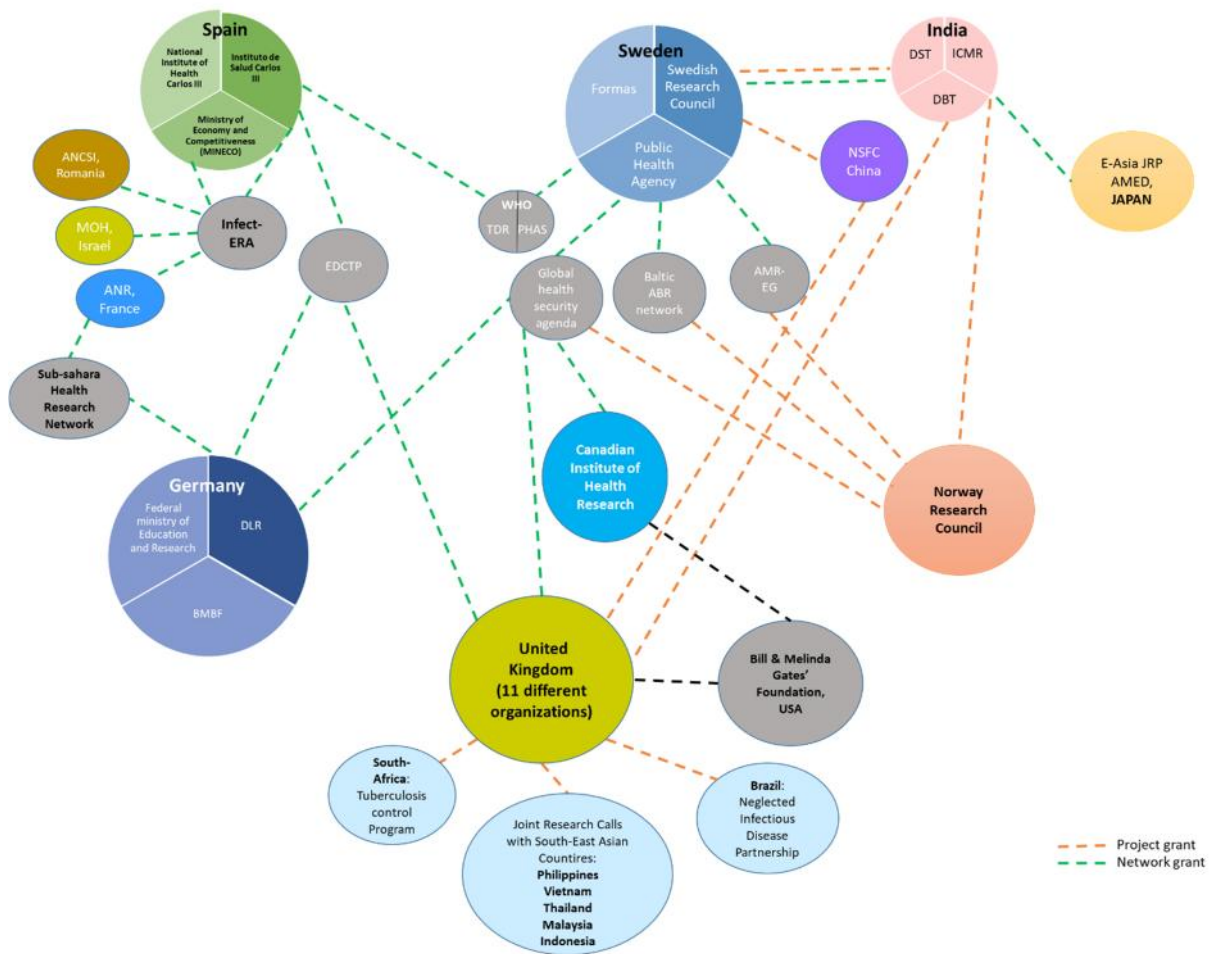
The research organizations with which the different countries has or had collaborations/joint programmes with are listed below (and also schematized in the network map):

Canada	- Bill and Melinda Gates Foundation, USA
Sweden	<ul style="list-style-type: none"> - National Natural Science foundation of China (NSFC), collaboration on calls - Department of Science and Technology (DST), India
Norway	- Indian Council of Medical Research
UK – MRC	- MRC/South African MRC: Joint call to support Tuberculosis Control Implementation Science

	<ul style="list-style-type: none"> - UK - Philippines: Joint Health Research Call - UK-Vietnam; Joint Infectious Disease Research Call - DBT-MRC Joint Centre Partnerships - Joint Global Research Programme: Women’s and children's health - UK-Filipino Infectious Diseases Workshop - UK-Thailand: Joint Health Research Call - UK-Brazil Neglected Infectious Partnership - UK-China AMR Partnership Initiative - UK-Malaysia Joint Health Research Call in Non-Communicable Diseases - UK-Indonesia Joint Health Research Call – workshop - 2 Research Performing Centres with India - 2 units in Africa that are not jointly funded
UK – other funding agencies	<ul style="list-style-type: none"> - Bill and Melinda Gates Foundation, USA

Concluding remarks:

-)] This survey was conducted to identify bilateral or multilateral activities that JPIAMR Member States are involved in with specific relevance to antimicrobial resistance research and infectious disease research.
-)] 13 countries responded to the survey providing details regarding the different organizations involved in different joint programs. Majority of the organizations reported to have formal cooperation agreements (MoU, LoI, or similar) with other countries in the area of infectious diseases and/or antimicrobial resistance.
-)] Most of them participate in joint programmes/ collaborations with other funding agencies within or outside Europe highlighting the benefits of transnational collaborations (as detailed in appendix I).
-)] As a country, UK provided the most detailed information and reported to have the highest collaborations around the world within the area of infectious diseases. They are involved in different programmes, with a predominance towards bilateral programs with South-Asian countries.
-)] However, the other member states are more involved in multilateral joint programs with a preference towards research network programs.



Schematic representation of a network map to highlight the different bilateral and multilateral collaborations that already exist within the JPIAMR member states. Please note, the network delineated here is not complete and does not include all the collaborative programs that exist between the different countries. The network map is limited to few programs where the participation of the different JPIAMR member states could be traced to help visualize the connecting links.

Appendix 1:

Questions included in the survey:

1. Country and Organization
2. Type of Organization: Research Funding Organisation, Research Performing Organisation, Mixed or Others.
3. Does your organisation have formal cooperation agreements (MoU, Lol, or similar) with other countries in the area of infectious diseases and/or antimicrobial resistance? If yes, how many
4. Does your organisation participate in joint programmes/ collaborations with other funding agencies? If yes, are they other funding agencies in Europe or other funding agencies outside Europe.
5.
 - a. Please indicate the number of collaborations within the different categories of the programmes (as Jointly funded call, Jointly funded research programme, Jointly funded research performing centres, Joint programme including clinical trials, Programme to support the career advancement of researchers, Exchange of (research or administrative) personnel or Others).
 - b. Please name the ROs with which your organisation has or had collaborations/joint programmes with (as indicated in questions 3 and/or 4). (Organization, Country, Category of program, Outcome of program, Budget)
 - c. Do these joint programmes mainly encompass bilateral or multilateral collaborations?
Bilateral or Multilateral
6. Which are the main benefits of cross-border funding experienced by your organisation?(short write-up)
7. Which are the main hurdles with cross-border funding experienced by your organisation?
(Short write-up)
8. Please state any other comment or additional information you would like share regarding cross-national collaboration.

6. Comments on the main benefits of cross-border funding experienced by different organisations:

Country	Organization	Response
Spain	Instituto de Salud Carlos III	Connecting Spanish researchers with their best colleagues of other countries, contributing to improve the quality of research and opening new opportunities for them. Streamlining the research done in our country with the general European and global trends. Support for the continuity of funding in areas of cross-border funding through mid-term scientific agendas.
Spain	Ministry of Economy and Competitiveness (MINECO)	MINECO cannot participate in cross-border funding activities. MINECO could only fund research activities carried out in the country.
Romania	ANCSI	Most of them are under mobility scheme - bilateral agreements - sharing experiences with other scientists and creating the ground for a good partnership .
Czech Republic	Ministry of Education, Youth and Sports	From general perspective, intensely internationalized R&D and innovation ecosystem allow concentration of critical mass of capacities as well as capabilities, which are necessary for the performance of excellent R&D and innovation leading to the strengthening of international competitiveness built on the basis of knowledge economy.
Germany	DLR -PT on behalf of BMBF	Higher funding volume, fostering research partnerships, fostering scientific and technical collaboration on policy level
Denmark	Innovation Fund Denmark	We believe that the world's best researchers, organisations and companies should contribute to our projects and that will only happen through international collaborations. As for anti-microbial resistance, microbes do not know or respect borders and they do not throw their multi-drug resistance when they cross borders. If we are to efficiently combat multi-drug resistant infections, we will have to have international efforts and collaborations. Finally, the researchers tell us that they get a broader network.
Norway	Research Council of Norway	establish cooperation between indian and norwegian scientists.
Israel	Chief Scientist Office - Ministry of Health	Sharing information, knowledge, tools etc.
Canada	Canadian Institutes of Health Research	<ul style="list-style-type: none"> • Remain engaged in global trends and the direction of health research • Opportunity to network with other countries/organizations

		<ul style="list-style-type: none"> • Opportunity to provide input towards the development of the strategic research agendas of large collaborative efforts • Greater opportunity for Canadian researchers' to collaborate on projects that cross borders • Leverage resources of larger organizations and countries • Access to large cohort datasets • Ability to impact gaps or opportunities in an actionable way • Ability to spark and amplify the most innovative and imaginative solutions to unsolved problems which are important and/or urgent • Many diverse stakeholder groups have identified this priority as relevant to society's health research and knowledge translation needs • Optimize the potential for transformative impact (game changers) nationally and internationally • Ability to exercise global leadership for impact through leveraging our (CIHR and Canada) strengths
Sweden	Public Health Agency of Sweden	Knowledge exchange, AMR is a global problem requiring cross-border solutions

7. Which are the main hurdles with cross-border funding experienced by your organisation?

Country	Organization	Response
Spain	National Institute of Health Carlos III	With no thematic budget lines for research areas it is difficult to ensure stable funding for cross-border collaborations, which are usually thematic driven. Cross-border collaboration is sometimes seen as competing with national programmes, rather than complementing them. This makes difficult to decide the right level of funding for cross-border collaboration. Matching timelines of cross-border programmes with national administrative procedures is sometimes difficult.
Spain	Instituto de Salud Carlos III	Legal and administrative barriers.
Romania	ANCSI	Very limited- limited budget and not defined research agenda(not relevant for AMR - only AMR is not excluded).
Czech Republic	Ministry of Education, Youth and Sports	At the national level, the main barriers are limited financial resources and lack of sectorial coordination. At the international level, different timeframes and other administrative barriers of the respective national programmes are the factors that hinder the cross-border funding.
Germany	DLR -PT on behalf of BMBF	different legal and regulatory frameworks

Denmark	Innovation Fund Denmark	Communication and bureaucracy. Different rules in different countries. Time spent on coordination. Misunderstandings (due to different cultures?) There are no hurdles which cannot be overcome but it is more work to have trans-national calls.
Norway	Research Council of Norway	Time consuming, difficult to raise funding on both sides at the same time. Cultural differences might pose challenges.
Canada	Canadian Institutes of Health Research	<ul style="list-style-type: none"> • CIHR can only deliver funds to Canadian researchers, therefore this can limit the number (or selection) of multi-country teams funded under a call for proposals • Heavy administrative burden • Inconsistent program infrastructure, i.e. the min and max budgets per 'grant' and how grants are selected for funding (these need to be negotiated each new funding call which is burdensome and time consuming. • Inconsistent peer review procedures, including (short) timelines and ability to engage nationally • Inconsistent use of terminology between initiatives • Inconsistent process and requirements to becoming a member • Member responsibilities are not always known understood, or communicated from the outset • Lack of technological infrastructure for more efficient and safe document sharing (i.e., not only through email) • Communication (due to time difference, geographic location) is not always clear and fast • Role/responsibilities/capacity of Third Country Members (such as Canada) in Horizon2020 programmes is often misunderstood by programme leads and other members
Sweden	Public Health Agency of Sweden	Difficulties in finding funding for this kind of applicable research; many of our collaborators have limited resources

8. Please state any other comment or additional information you would like share regarding cross-national collaboration.

Country	Organization	Response
Sweden	Vetenskapsrådet	It is important to take Ethical issues into consideration. Ethical regulations can be very different in different countries, both for animal and human material experiments. Another aspect is Gender issues.
Spain	Instituto de Salud Carlos III	The current level of coordination between national and cross-border collaborative programmes does not allow to correctly decide the best level of activity on each.
Romania	ANCSI	We do not have databases regarding this kind of information - and this means it is not possible to provide accurate data

		regarding cross- national collaboration on AMR . We do not have also personnel for searching and practically create a database on this topic.
Czech Republic	Ministry of Education, Youth and Sports	The Ministry of Education, Youth and Sports (MEYS) does not have a specific programme to support cross-national collaboration in R&D in the area of antimicrobial resistance, however projects from this area can be supported within the existing R&D programmes operated by MEYS, which cover a broad range of scientific fields, as well as within programmes of other providers of support on R&D, e.g. Technology Agency of the Czech Republic (for applied research) or Grant Agency of the Czech Republic (for basic research).
Germany	DLR -PT on behalf of BMBF	We wish to state, that cross-national collaboration doesn't necessarily mean cross-border funding. The majority of our activities consists of funding the German entities in multi- or bilateral research cooperations (exception: health research networks Subsahara africa).
Denmark	Innovation Fund Denmark	The hurdles should by no means stop cross-national collaboration - that would be a disaster for research! There is no choice - we need cross-national collaborations

Appendix 2: Detailed response of UK as an attached file

A survey on transnational funding across JPIAMR Member States

The objective of this questionnaire is to identify bilateral or multilateral activities that JPIAMR Member States are involved in, specifically in antimicrobial resistance and infectious diseases research.

Question 1.

Country and name of your organisation: **This survey has been completed by many organisations in the UK and compiled into one large response.**

Organisations contacted and have international activity to report:

The Animal and Plant Health Agency ([APHA](#))

Biotechnology and Biological Sciences Research Council ([BBSRC](#))

The Department for International Development ([DFID](#))

Defence Science and Technology Laboratory ([Dstl](#))

Department for Environment, Food and Rural Affairs ([Defra](#))

Department of Health ([DH](#))

Economic and Social Research Council ([ESRC](#))

HSC R&D Division, Public Health Agency, Northern Ireland ([HSCNI](#))

Medical Research Council ([MRC](#))

National Institute of Health Research ([NIHR](#))

Wellcome Trust ([WT](#))

Question 2.

Type of organisation:

The Animal and Plant Health Agency (APHA) = executive agency, sponsored by the Department for Environment, Food & Rural Affairs (Defra), not a funding body

Biotechnology and Biological Sciences Research Council (BBSRC) = Non-Departmental Government body- public research funder

The Department for International Development (DFID) = Government, ministerial department, bilateral funder

Defence Science and Technology Laboratory (Dstl) = executive agency, sponsored by the Ministry of Defence.

Department for Environment, Food and Rural Affairs (Defra) = Government, ministerial department

Department of Health (DH) = Government, ministerial department

Economic and Social Research Council (ESRC) = Non-Departmental Government body, public research funder

HSC R&D Division, Public Health Agency, Northern Ireland = state-funded body on behalf of Department of Health Social Services and Public Safety (DHSSPS)

Medical Research Council (MRC) = Non-Departmental Government body, public research funder

National Institute of Health Research (NIHR) = funded by the Department of Health, public research funder

Wellcome Trust (WT) = Charitable foundation

Question 3.

Does your organisation have formal cooperation agreements (MoU, LoI, or similar) with other countries in the area of infectious diseases and/or antimicrobial resistance?

The Animal and Plant Health Agency ([APHA](#))

Yes: 16+ (number of formal cooperation agreements, and do not include the EU funded projects as these are collaborations with agencies and organisations within the countries on a project basis)

We have agreements with four equivalent European veterinary agencies (Netherlands, France, Sweden, Denmark).

We are the nominated reference laboratory on antimicrobial resistance for the Office International des Epizooties (OIE, World Animal Health Organisation), where our collaborators include 8 EU countries and 6 countries outside of the EU.

We are also the OIE reference laboratory for certain other animal diseases, some of which may be treated with antimicrobials (salmonella, mycoplasma (contagious agalactia), brucella, contagious equine metritis); Newcastle Disease, Avian Influenza and TSEs.

Biotechnology and Biological Sciences Research Council ([BBSRC](#))

Yes: 5+

The Department for International Development ([DFID](#))

No

Defence Science and Technology Laboratory ([Dstl](#))

Yes: 10+

Department for Environment, Food and Rural Affairs ([Defra](#))

Yes: 3 [STAR-IDAZ, CWG AHW, GRAbTB]

Department of Health ([DH](#))

No: officially no but some current work with China on-going

Economic and Social Research Council ([ESRC](#))

No

HSC R&D Division, Public Health Agency, Northern Ireland ([HSCNI](#))

A Memorandum of Understanding exists (2011) between two of our own Government Departments (Health, Social Services and Public Safety [DHSSPS] and Enterprise, Trade and Industry) for Connected and Prosperity, and a further MoU was signed between DHSSPS and the Basque Department of Health and Consumer Affairs and the City of Oulu, Finland. These also have a focus on closer cooperation on Connected Health and Social Care.

Medical Research Council ([MRC](#))

Yes

National Institute of Health Research ([NIHR](#))

No

Wellcome Trust ([WT](#))

No: because WT can fund internationally directly.

Question 4.

Does your organisation participate in joint programmes/ collaborations with other funding agencies in the area of infectious diseases and/or antimicrobial resistance?

The Animal and Plant Health Agency ([APHA](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No – APHA apply to funding organisations for funding in the UK or EU, they do not fund research beyond in-house activities

Biotechnology and Biological Sciences Research Council ([BBSRC](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No

The Department for International Development ([DFID](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No (except for product development partnerships (PDP))

Defence Science and Technology Laboratory ([Dstl](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No – not with other funding agencies, but do with similar defence agencies like Dstl that conduct the research

Department for Environment, Food and Rural Affairs ([Defra](#))

- Yes, other funding agencies in Europe – Defra is a partner in the Collaborative Working Group for European Animal Health and Welfare Research (CWG AHW) which is a network of European research funders and programme owners (www.scar-cwg-ahw.org)
 - Yes, other funding agencies outside Europe-
 - Defra leads the STAR-IDAZ International Research Consortium for Animal Health (STAR-IDAZ IRC) which is a global network of research funders and programme owners (www.star-idaz.net). The Consortium includes partners from Europe, Asia, Australasia, the Americas, Africa and the Middle East as well as veterinary pharmaceutical companies and international organisations with a total budget in the region of US \$2 billion to invest over a five year period to 2021. These partners have agreed to align their research programmes, share results and together deliver new and improved animal health strategies for at least 30 priority diseases/infections/issues, including candidate vaccines, diagnostics, therapeutics and other animal health products, procedures and/or key scientific information/tools to support risk analysis and disease control.
 - The focus of STAR-IDAZ is infectious diseases of animals and is in the process of establishing a number of working groups (WGs) to identify research gaps relating to priority diseases and crosscutting issues. WGs have already been established for Influenza, bTB, FMD, PRRSV, Brucellosis, ASF and vaccinology and there are plans to establish WGs for Innovative anti-infectious approaches, including alternatives to antimicrobial agents, Mastitis, coronaviruses, emerging Issues, vector-borne diseases, animal genetics/genomics, helminth parasites, rabies and epidemiology.
 - A Scientific Committee, consisting of independent experts, will prioritise and present the gap analyses to the IRC partners and advise them on how their programmes might be aligned to address the research gaps.
- No

Department of Health ([DH](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No

Economic and Social Research Council ([ESRC](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No – only within the UK with other Research councils on infectious diseases and on AMR via the AMR Cross Council initiative

HSC R&D Division, Public Health Agency, Northern Ireland ([HSCNI](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No

Medical Research Council ([MRC](#))

- Yes, other funding agencies in Europe - via JPIAMR, JPND, and JP=HDHL
 - Yes, other funding agencies outside Europe – via Newton fund
<http://www.mrc.ac.uk/research/international/the-newton-fund/>
- No

National Institute of Health Research ([NIHR](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No

Wellcome Trust ([WT](#))

- Yes, other funding agencies in Europe
- Yes, other funding agencies outside Europe
- No

Question 5a.

Please indicate the number of collaborations within the different categories of the programmes (as indicated in questions 3 and/or 4).

The Animal and Plant Health Agency ([APHA](#))- don't fund but receive funds for research

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify
 - Commercially funded- 4
 - OIE Twinning – 3
 - OIE Reflab – 1
 - EU Reflab - 5

Biotechnology and Biological Sciences Research Council ([BBSRC](#))

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify

The Department for International Development ([DFID](#))

- Jointly funded call

- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify
 - At the moment we are not doing anything ourselves, or jointly with other funders except for the product development partnerships (PDPs) work which is already being collected and collated by G-FINDER.
 - We fund a number of different PDPs and contribute, with MRC to EDCTP – but nothing with a specific focus on AMR per se.

Defence Science and Technology Laboratory ([Dstl](#))

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify

Department for Environment, Food and Rural Affairs ([Defra](#))

- Jointly funded call We have participated in 5 previous joint calls through the EMIDA ERA-Net (infectious animal diseases) and ANIHWA ERA-Net (animal health and welfare) but are not participating in any currently directly related to AMR or infectious diseases.
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers

- Exchange of (research or administrative) personnel
- Other, please specify

Department of Health (DH)

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify

Economic and Social Research Council (ESRC)

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify EDCTP

HSC R&D Division, Public Health Agency, Northern Ireland (HSCNI)

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel

- Other, please specify

Medical Research Council (**MRC**)

- Jointly funded call with Newton fund in the area of infectious diseases/ AMR since 2014 and more to come
 - [MRC/South African MRC: Joint call to support Tuberculosis Control Implementation Science](#)
 - [UK - Philippines: Joint Health Research Call](#)
 - [UK-Vietnam; Joint Infectious Disease Research Call](#)
 - [DBT-MRC Joint Centre Partnerships](#)
 - [Joint Global Research Programme: Women's and children's health](#)
 - [UK-Filipino Infectious Diseases Workshop](#)
 - [UK-Thailand: Joint Health Research Call](#)
 - [UK-Brazil Neglected Infectious Partnership](#)
 - [UK-China AMR Partnership Initiative](#)
 - [UK-Malaysia Joint Health Research Call in Non-Communicable Diseases](#)
 - [UK-Indonesia Joint Health Research Call - workshop \(to be launched soon\)](#)
- Jointly funded research programme although only in the UK the ZELS joint research initiative on Zoonoses and Emerging Livestock Systems involving BBSRC, DFID, DSTL, MRC, ESRC and NERC might be of interest (<http://www.bbsrc.ac.uk/research/international/zels/>)
 - Jointly funded research performing centres with India in AMR
<http://www.mrc.ac.uk/news/browse/new-multimillion-india-uk-research-centres/>
- Jointly funded programme including clinical trials
 - <http://www.mrc.ac.uk/funding/science-areas/global-health/european-and-developing-countries-clinical-trials-partnership-edctp/>
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify

MRC have 2 units in Africa that are not jointly funded.

Uganda <http://www.mrcuganda.org/>

Gambia <http://www.mrc.gm/>

National Institute of Health Research ([NIHR](#))

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
- Other, please specify

NIHR eligibility rules state that the Principal Investigator must be based in the UK. Payments will be made to the contracted organisation only, (i.e. the Principal Investigator's Institution) and the contracted organisation will be responsible for arranging any transfer of money due to their partner organisation(s) which may include international collaborators. Therefore, any international collaborations for AMR projects, do not include any contracts between NIHR and an international group, but may include an arrangement between with the international collaborator and the institution of the UK Principal Investigator.

Wellcome Trust ([WT](#))

- Jointly funded call
- Jointly funded research programme
- Jointly funded research performing centres
- Jointly funded programme including clinical trials
- Programme to support the career advancement of researchers
- Exchange of (research or administrative) personnel
 - Other, please specify
 - WT invest directly in core support, salaries and infrastructure in 5 major overseas programmes [Thailand, Vietnam, Malawi, Kenya, South Africa] these are not part of a collaboration <http://www.wellcome.ac.uk/Funding/Biomedical-science/Funded-projects/Major-initiatives/Major-Overseas-Programmes/index.htm>
 - Also supported activities at MMV (based in Europe) <http://www.mmv.org/about-us/our-donors> , Novartis Institute for tropical Diseases (Singapore) and DELTAS awards.

- The DELTAs we fund with DfID, but this is under the AESA umbrella co-funded with Gates.
<http://www.wellcome.ac.uk/News/Media-office/Press-releases/2015/WTP059728.htm>

Question 5b. Please name the ROs with which your organisation has or had collaborations/joint programmes with (as indicated in questions 3 and/or 4).

BBSRC

1. Organisation: Department of biotechnology

Country: India

Category of program/Name of program: Farmed Animal Health and Disease

Outcome of program (no. of projects funded): 12

Budget (in €): BBSRC UK contribution approx. £6.5 million

<http://www.bbsrc.ac.uk/funding/filter/farmed-animal-disease-health/>

2. Organisation: ERA-Net ANIWHHA Calls 1, 2 and 3

Country: Participating Countries: Germany, France, Belgium, Denmark, Italy, Israel etc.

Category of program/Name of program (example: project grants, policies, et cetera):

- Call 1: First Transnational Call.
- Call 2: Second Transnational Call
<https://www.anihwa-submission-era.net/second-call-documents>
<http://www.bbsrc.ac.uk/news/health/2015/150617-n-bbsrc-commit-2m-to-improve-animal-health-and-welfare/>
- Call 3: Third Transnational Call
<http://www.bbsrc.ac.uk/funding/filter/animal-health-and-welfare-era-net/>

Outcome of program (no. of projects funded)

- BBSRC and Defra provided a total of £4M to fund 7 projects costing approx. €9.8M. Rest of the funding came from the European Partners
- BBSRC provided a total of € 2.4M (£1.92M) to fund 6 projects costing approx. €5.9M
- BBSRC provide £1M to fund 3 projects

Budget (in €): BBSRC contribution: approximately €7M

3. Organisation: Science Foundation Ireland

Country: Ireland

Category of program/Name of program: SFI-BBSRC Bilateral agreement

<http://www.bbsrc.ac.uk/funding/filter/sfi-joint-funding-of-research/>

Outcome of program (no. of projects funded): on-going

Budget (in €): n/a

4. Organisation: U.S. Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA)

Country: US

Category of program/Name of program: US-UK Collaborative Animal Health and Disease and Veterinary Immune Reagents program.

Budget (in €): £2.3m from BBSRC \$2.3m from NIFA

<http://www.bbsrc.ac.uk/news/food-security/2015/150219-pr-usda-nifa-partner-for-animal-disease/>

5. Organisations: National Science Foundation (NSF), National Institutes of Health (NIH), and the U.S. Department of Agriculture (USDA)

Country: USA

Name of Programme: Ecology and evolution of infectious diseases (EEID) UK-US collaborative funding.

Budget: To date, BBSRC has co-funded ten US-UK Collaborative Projects through four calls (2010/11, 2011/12 2012/13 and 2013/14) with its contribution of £4.88M and ESRC^[1] and US contribution of £127K and £9.86M (\$16.399M^[2]) respectively.

^[1] ESRC has participated in only 2010/11 Call

^[2] Please note the US-UK Collaborative Projects are only a small part of the EEID programme and the total funding of the programme is more.

In addition BBSRC and NSF have funded Research Collaboration Network in Vector-borne diseases (contribution of £500k from BBSRC and \$500 from US).

<http://www.bbsrc.ac.uk/funding/filter/ecology-evolution-of-infectious-diseases-2014/>

Defence Science and Technology Laboratory (Dstl)

Defence organisations in US, Canada, Australia and most of the European countries. Some are currently inactive. All are on research for defence purposes. The big US/Canada/OZ one is active and is the biggest. It isn't jointly funded research, each party get their own funding then we burden share. Don't know cost.

Department for Environment, Food and Rural Affairs ([Defra](#))

Defra's research is performed by its agencies but Core Defra has co-funded many projects with many different European research funding organisations, mainly through participation in joint research calls using the virtual common pot method whereby each funder funds the ROs in their own country. Details can be found below:

EMIDA Call 1 (2010) and Call 2 (2011) each funding projects to the approx. value of €21 million: <http://www.scar-cwg-ahw.org/index.php/emida/>

ANIHWA Call 1 (2012) with a budget of €14 million: <https://www.anihwa-submission-era.net/first-call-funded-project>

ANIHWA Call 2 (2013) with a budget of €11 million: <https://www.anihwa-submission-era.net/call2/second-call-funded-project>

ANIHWA Call 3 (2014) with a budget of €9.3 million: <https://www.anihwa-submission-era.net/call2/third-call-funded-project>

MRC

Organisations we work with beyond EU in these links:

- [MRC/South African MRC: Joint call to support Tuberculosis Control Implementation Science](#)
- [UK - Philippines: Joint Health Research Call](#)
- [UK-Vietnam; Joint Infectious Disease Research Call](#)
- [DBT-MRC Joint Centre Partnerships](#)
- [Joint Global Research Programme: Women's and children's health](#)
- [UK-Filipino Infectious Diseases Workshop](#)
- [UK-Thailand: Joint Health Research Call](#)
- [UK-Brazil Neglected Infectious Partnership](#)
- [UK-China AMR Partnership Initiative](#)
- [UK-Malaysia Joint Health Research Call in Non-Communicable Diseases](#)
- [UK-Indonesia Joint Health Research Call - workshop](#) (to be launched soon)

Wellcome Trust (WT)

Organisation: Birac

Country: India

Category of program/Name of program: Birac- Wellcome Trust Partnership

Outcome of program (no. of projects funded): 2 projects funded (currently on-going)

Budget (in €): €700,000

Organisation: Gates Foundation

Country: USA

Category of program/Name of program: Centre of excellence for diseases of the developing world at Dundee with Gates

Outcome of program (no. of projects funded): details not yet available

Budget (in €): £6.5 million over five years (~€8m)

Organisation: Merck

Country: USA

Category of program/Name of program: Hillman Laboratories

Outcome of program (no. of projects funded): 3 main projects so far

Budget (in €): £90 million / €111.5 million (only £27m spent to date)

Organisation: BMGF, Government of Japan, Japanese pharma companies and Wellcome

Category of program/Name of program: the Global Health Innovation Technology Fund, exclusively/or mainly focused on infectious diseases.

Question 5c.

APHA - do not fund research but do the research

Do these joint programmes mainly encompass bilateral or multilateral collaborations?

- Bilateral
- Multilateral- research collaborations, not funding body collaborations

BBSRC

- Bilateral
- Multilateral

The Department for International Development ([DFID](#))

Do these joint programmes mainly encompass bilateral or multilateral collaborations?

- Bilateral
- Multilateral

Defence Science and Technology Laboratory (Dstl)

- Bilateral
- Multilateral

Department for Environment, Food and Rural Affairs (Defra)

- Bilateral
- Multilateral

HSC R&D Division, Public Health Agency, Northern Ireland (HSCNI)

- Bilateral
- Multilateral

MRC

- Bilateral via Newton Fund
- Multilateral via JPI's

Wellcome Trust ([WT](#))

Do these joint programmes mainly encompass bilateral or multilateral collaborations?

- Bilateral
- Multilateral

Question 6.

Which are the main benefits of cross-border funding experienced by your organisation?

(Please limit your response to 200 words)

APHA - do not fund research but do the research

Cross-border funding provides the facility to perform research to address research questions where funding from single sources may be limited. There are often opportunities for sharing of expertise and development of common approaches to investigating problems. Pooling resources often adds to the robustness of results (larger sample sizes, increasing diversity of sample) and allows the investigation of regional or national differences. Differences in the occurrence of resistance/ pathogens can be extremely useful in risk assessment studies.

BBSRC

- Coordination of research activities
- Addressing global challenges through global coordination
- Access to resources and facilities in other countries
- Developing partnership that had complementary expertise for mutual benefit

The Department for International Development ([DFID](#))

Alignment and harmonisation

Defence Science and Technology Laboratory (Dstl)

Burden sharing, avoids duplication of effort and resource. Some work is distributed by pathogen, others on research area/skills/facilities. Access to knowledge and information.

Department for Environment, Food and Rural Affairs (Defra)

More efficient use of resources/better value for money.

Allows access to more and higher quality research for less investment.

AMR and infectious diseases are global and complex in nature so a coordinated approach to tackling the issues is needed.

Sharing information with overseas counterparts.

Linking UK researchers with those in other countries.

ESRC

Allows funders to fund research that addresses global challenges that are bigger than single funder, single country issues.

Participation provides researchers with access to global and diverse populations for research, and enables the best researchers to work together.

HSC R&D Division, Public Health Agency, Northern Ireland (HSCNI)

The division has been involved in a number of cross-border funding initiatives in other or more general areas, including:

The [US-Ireland Research and Development Partnership](#) is a unique initiative involving funding agencies across three jurisdictions: United States of America (USA), Republic of Ireland (RoI) & Northern Ireland (NI), in which health is one of the priority thematic areas. As part of the Partnership Programme, the governments and relevant research funding agencies within the Partnership contribute to the research costs of researchers based in their jurisdictions.

HSC R&D Division and the Health Research Board in Ireland have recently submitted a stage 2 bid for [INTERREGVA](#) funding under the Health Priority 4.123. The bid aims to expand existing clinical research networks into the more remote regions of Northern Ireland and the border counties of Ireland, by creating an infrastructure to deliver healthcare intervention trials. The PHA has previously been the recipient of INTERREG funding from the Northern Peripheries Programme (Telemonitoring) as a co-ordinator and H2020 funding (S-HELP), as a partner.

The [Ireland – Northern Ireland – National Cancer Institute Cancer Consortium](#). Is a long-standing partnership provides researchers in Ireland with valuable opportunities to visit the National Cancer Institute for training and education, and bring back new skills to enhance research and practice. Supported by HSC R&D Division in Northern Ireland and HRB in the Republic of Ireland, cancer researchers have been able to avail of the NCI training programmes in Molecular Prevention and Principles and Practice of Cancer Prevention and Control. In addition, the NCI has provided training in Health Economics research, a much needed expertise in Ireland.

The [Northern Ireland Rare Disease Partnership](#) is linked in to wider networks in the UK (Rare Disease UK), Ireland and wider Europe, [EURORDIS](#), which is funded by the EU Health Programme.

The main benefits experienced are:

- Exchange of best practice, policy ideas and skills
- Meeting common goals
- Better use of resources by using common processes
- Network development

MRC

By working bilaterally with overseas funding agencies, we feel that the research projects we fund are genuinely collaborative (ie we do not fund projects with overseas Co-I's tagged on to projects just to meet eligibility criteria).

We enable UK scientists to engage with the best minds, ideas and resources wherever they are located.

Working in partnership allows us to leverage resources that increase the value of our work and lead to greater impact.

We can provide leadership in policy areas, including peer review, open access publishing and research integrity, to gain better alignment with UK strategic needs and in international funding activities.

From a research funding perspective, it is much easier to tap in to appropriate in country expertise, which ensures a robust review process. [It is the individuals who live and work in the target country who are able to effectively assess the project's feasibility.]

NIHR

Accessing specialist knowledge

International co-applicants are employed on UK funded studies where they are best placed to supply specialist input to the research

Accessing health technology

Suppliers of health technologies may not be based in the UK. Researchers therefore negotiate international supply agreements to evaluate these technologies in UK settings.

Accessing a larger pool of research participants

The NIHR funds research relevant to the NHS however in for specific disease areas increased power can be gained through use of international recruiting sites.

Systematic reviews and meta-analysis

UK researchers collaborate with international colleagues, combining data from many studies to produce statistically significant results that would not be possible from the efforts of any one country alone.

Question 7.

Which are the main hurdles with cross-border funding experienced by your organisation?

(Please limit your response to 200 words)

APHA- do not fund research but do the research

It can be complex and very time consuming to develop proposals, especially as the leader of a consortium. Some of the financial costs incurred in delivering a project can be ineligible for funding.

BBSRC

Different priorities and different ways of working

The Department for International Development ([DFID](#))

Timing and resources and monitoring

Defence Science and Technology Laboratory (Dstl)

Difficulties in gaining access to information can be difficult

Department for Environment, Food and Rural Affairs (Defra)

Unlike some of the other European funding organisations Defra has no problems funding overseas ROs.

ESRC

There are significant resource needs to enable cooperation between funders and countries – such as central admin and coordination to establish the collaboration and manage the decision-making process. It can very resource intensive for the countries coordinating the collaborations, but our feeling is that it is more resource efficient on the whole than countries operating separately or in smaller partnerships.

It can be challenging to agree terms and rules across partners, particularly where some countries have stricter guidelines than other. As with any collaboration, there are times when individual funders need to compromise to support the collective endeavour and may not have everything they want included.

HSCNI

The main hurdles and development points experienced are:

- Jurisdictional differences
- Health service structure and governance differences
- Not defining roles clearly enough at the outset can cause difficulties

MRC

- Aligning peer review processes to ensure an (independent) joint decision making process. Each country has its own process for reviewing applications, and so understanding these, and then developing a process that satisfies both funders is often challenging.
- Ensuring that each partner honours its commitments regarding the funding of projects has in the past been an issue.
- It is labour intensive/time consuming working in bilateral partnerships! Though very rewarding!

NIHR

Complexity of regulations

Differences in regulations in other countries make study set up longer and more expensive. For example:

Each country employs different application systems for research approvals making set up take longer.

International sites usually require additional insurance.

Funding arrangements

Attribution of costs is complex. Taking account of funding rules for other countries adds complexity and can lead to delays. For example:

Application budgets must be carefully checked to ensure that we are not paying any treatment costs, either for UK or for overseas. It is sometimes difficult for us to work out who will be paying the excess treatment costs for other countries

Other countries might have different standard care for particular disease areas which makes the calculation of treatment costs more complicated and may therefore be higher/lower treatment costs, or a completely different care pathway. This can make the research design more complicated.

Different rules regarding what international funders will cover as a research cost and complexity of claiming support costs for UK and non UK participants.

Standardisation of data

Recent years have seen an increased in UK research studies using routinely collected health and care data. Agreement of international standards on collection, storage and accessibility would facilitate more international research of this type.

Question 8.

Please state any other comment or additional information you would like share regarding cross-national collaboration.

(Please limit your response to 200 words)

ESRC

It is important to clarify the purpose of the call and what it will achieve that can't be done through existing mechanisms to ensure that the JPI funding goes as far as it can and is focused on the intended research.

The funding approach between partners is critical. If each country funds its own researchers, there can be difficulties where smaller funders run out of funds sooner than larger funders, leaving proposals unfunded due to the participation of one funder, or pressure on the smaller funder to find more funding. This can be overcome if there is a common-pot approach or additional/matched European funding that isn't country-specific.

As a smaller funder (we fund social science) the cross-border collaboration allows us to contribute to broader research agendas, but being a smaller funder can also limit our influence on the call.

We find that similar organisations in different countries tend to work together, with less interdisciplinary cross-remit collaboration. We expect this is because operationally it is more straight-forward in process and also it is harder to build strong interdisciplinary research. There is much potential for cross-remit work in AMR; as an example, the ESRC has interests in the relevance of animal models to human behaviour and in public health.